



**MINISTRY OF AGRICULTURE**

**ANNUAL REPORT ON THE STATE AND DEVELOPMENT OF  
AGRICULTURE**

***(AGRICULTURAL REPORT `2022)***

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### List of abbreviations used

AGC	Administrative Grant Contracts
AEP	Agri-environmental payments
AACS	Administrative Assistance and Cooperation System
BFSA	Bulgarian Food Safety Agency
BSMAEC	Bulgarian Survey for Monitoring the Agricultural and Economic Conjuncture
GDP	Gross Domestic Product
GVA	Gross Value Added
BSS	Bulgarian State Standard
Buffaloes	Coupled support scheme for buffaloes
BNB	Bulgarian National Bank
BEP	Biological and economic properties
BRC	Bulgarian Red Cross
Grants	Grants
RES	Renewable Energy Sources
VMP	Veterinary Medicinal Products
VOC	Verification of Official Controls Directorate General
CLLD	Community-led local development
HNV	Restoration and maintenance of grasslands of high natural value
BIP	Border inspection posts
BCRP	Border crossing points
GMO	Genetically Modified Organism
PG	Producer Groups
FRM	Forest reproductive materials
FMPP	Forestry management plans and programs
E-Gov Agency	E-Government State Agency
SG	State Gazette
SF units	State forestry units
VAT	Value Added Tax
SSC	Coupled support scheme for ewes and/or does under selection control
SSF	Scheme for small farmers
SHU	State hunting units
SE	State enterprise
SMR	Coupled Support Scheme for ewes and/or goats in mountain regions
SLF	State Land Fund
SFA/ SF Agriculture	State Fund Agriculture
SFA-PA	State Fund Agriculture - Paying Agency
EFTA	European Free Trade Association
SSCc-MILK	Coupled Support Scheme for dairy cows under selection control
SSCc-MEAT	Coupled Support Scheme for meat-breed cows under selection control
EAFRD	European Agricultural Fund for Rural Development:
EC	European Commission
SMNCP	Single Multiannual National Plan for Foods, Animal Feed, Animal Health and Welfare and Plant Health
EFSA	European Food Safety Authority
EERP	European Economic Recovery Plan
EU	European Union
ESF	European Social Fund
EAGF	European Agricultural Guarantee Fund
EMFF	European Maritime and Fisheries Fund

EFF	European Fisheries Fund
ERDF	European Regional Development Fund
GMOA	Genetically Modified Organisms Act
AFM	Agricultural and forestry machinery
PGI	Protected geographical indication
GDP	Payment scheme for agricultural practices that are climate and environment friendly (green direct payment)
SMR	Statutory management requirements
IND	Infectious nodular dermatitis
PDO	Protected designation of origin
SPMA	Seed and Propagating Material Act
OUALA	Ownership and Use of Agricultural Land Act
LICOAMEU	Law on the Implementation of the Common Organization of Agricultural Markets of the European Union
EFA	Executive Forest Agency
EAVW	Executive Agency on Vine and Wine
EAFA	Executive Agency for Fisheries and Aquaculture
EAVTASC	Executive Agency for Variety Testing, Approbation and Seed Control
EASRAB	Executive Agency for Selection and Reproduction in Livestock Breeding
UAA	Utilized agricultural area
IIS	BFSA Integrated Information System
IACS	Integrated Administration and Control System
UMIS 2020	Unified Management Information System for the EU structural instruments in Bulgaria 2020
Traffic police	Traffic police
CP	Consulting packages
CN	Combined Nomenclature
Mol	Ministry of Interior
YFS	Young Farmers Scheme
MA	Ministry of Agriculture
LAG	Local action groups
FLAG	Fisheries local action groups
MoEW	Ministry of Environment and Water
NRA	National Revenue Agency
HACCP	Hazard Analysis and Critical Control Point
NB	National budget
NGF	National Guarantee Fund
NSA1	Transitional National Decoupled Support Scheme for Cattle
NSA3	Transitional National Coupled Support Scheme for Ewes and/or She-goats
NDRVI	National Diagnostic Research Veterinary Institute
NDT	Transitional National Decoupled Tobacco Support Scheme
NMP	National Monitoring Program for Control of Pesticide Residues in and on Foods of Plant Origin
NMPRC	National Monitoring Program for Residue Control
NPCGMF	National Program for Control of Genetically Modified Foods
NPCPR	National Program for Control of Pesticide Residues in and on Foods
NBP	National Bee-keeping Program
NRL	National Reference Laboratory
NGS	National Grain Service
NSI	National Statistical Institute
NAAS	National Agricultural Advisory Service



TNM	Total number of microorganisms
TNSC	Total number of somatic cells
RD Agriculture	Regional Directorates of Agriculture
RDFS	Regional Directorate for Food Safety
OECD	Organization for Economic Cooperation and Development
CIS	Commonwealth of Independent States
CMO	Common Markets Organization
PO	Producer Organizations
OPIC	Operational Program "Innovation and Competitiveness"
SESG OP	Science and Education for Smart Growth Operational Program
CFP	Common Fisheries Policy
EOP	Environment Operational Program
RDOP	Regional Development Operational Program
OPDFS	Consulting packages
HRDOP	Human Resources Development Operational Programme
CAP	Common Agricultural Policy
Cotton	Special support for cotton
MFP	Maritime and Fisheries Programme
IRALOUA	Implementing Regulations for the Agricultural Land Ownership and Use Act
PPP	Plant protection products
RDP	Rural Development Programme
Priority	European Union Priority
FDI	Foreign Direct Investment
RDF	Regional Directorate of Forestry
CMD	Council of Ministers Decision
DUS	Distinctness, uniformity and stability
SAPS	Single Area Payment scheme
ESS	Electronic services system
SV-TCGE	Coupled Support Scheme for Vegetables (tomatoes, cucumbers, gherkins and eggplant)
SV-P	Coupled Support Scheme for Vegetables (Pepper)
SV-POG	Coupled Support Scheme for Vegetables (potatoes, onions and garlic)
SV- CCWM	Coupled Support Scheme for Vegetables (carrots, cabbage, watermelon and melon)
SV - other	Coupled Support Scheme for Vegetables (cabbage, watermelons and melons)
SV - main	Coupled Support Scheme for Vegetables (Main Group)
SVg	Coupled Support Scheme for Vegetables - Greenhouse Production
LPIS	Land Parcel Identification System
SDC	Coupled Support Scheme for Dairy Cows
SDC-MA	Coupled Support Scheme for Dairy Cows in Mountain Areas
SMKH	Coupled Support Scheme for Meat Cows and/or Heifers
LDS	Local development strategies
IA	Irrigation associations
SP-other	Coupled Support Scheme for Fruit (Plums and Table Grapes)
SP-main	Coupled Support Scheme for Fruit (Main Group)
SPC	Coupled Support Scheme for Protein Crops
SRP	Scheme for redistributive payment
AA	Agricultural Academy
LDS	Local development strategies
TSP	Thematic sub-program for small farms
FCA	Physical and chemical analysis

FBI	Food and beverage industry
FTST	Food of traditional and specific taste
CLVSEE	Central Laboratory for Veterinary Sanitary Expertise and Ecology
CLPQ	Central Laboratory for Plant Quarantine
CLCTC	Central Laboratory for Chemical Testing and Control
FCRAC	Food Chain Risk Assessment Center
DOM	Digital orthophoto map
PTC	Professional Training Center
HQ	Headquarters
CPVO	Community Plant Variety Office
ESVAC	European Surveillance of Veterinary Antimicrobial Consumption
OIE	International Office of Epizootics
PPPAMS	Plant Protection Products Authorization Management System
RASFF	Rapid Alert System for Food and Feed

## SECTION A

### I. STATE AND DEVELOPMENT OF THE NATIONAL ECONOMY. MACROECONOMIC FRAMEWORK. PLACE OF THE AGRICULTURAL SECTOR IN THE NATIONAL ECONOMY

According to NSI data, in 2021 the gross domestic product generated in the country grew by 7.6% compared to the previous year in real terms.

The nominal volume of GDP for the year is worth BGN 139,012 million (EUR 71,076 million).

By the end of 2021, the inflation increased by 7.8% compared to last year, and the average annual inflation is 3.3%.

According to BNB data on the country's balance of payments, in 2021 the export amounted to BGN 67,290 million (EUR 34,405 million), which represents 48.4% of the country's GDP. Imports for the year amounted to BGN 72,935 million (EUR 37,291 million) or 52.5% of the GDP. Thus, in the course of 2021, a negative trade balance for Bulgaria amounting to BGN 5,646 million (EUR 2,887 million) was formed.

In 2021, the foreign direct investment in Bulgaria amounted to BGN 2,358 million (EUR 1,205 million), which represents 1.7% of GDP.

**Table I.1. Main macroeconomic indicators of the Republic of Bulgaria**

Indicator	2017	2018	2019	2020	2021
GDP at current prices, BGN million	102,741	109,964	120,396	120,553	139,012
GDP at current prices, EUR million	52,530	56,224	61,558	61,638	71,076
Annual real rate of change in GDP, %*	2.8	2.7	4.0	-4.0	7.6
Average annual inflation, %	2.1	2.8	3.1	1.7	3.3
Inflation at the end of the year, %	2.8	2.7	3.8	0.1	7.8
Trade balance, BGN million	-1,512	-5,293	-5,688	-3,796	-5,646
Trade balance, EUR million	-773	-2,706	-2,908	-1,941	-2,887
FDI, BGN million	3,140	1,892	3,206	5,820	2,358
FDI, EUR million	1,606	968	1,639	2,976	1,205

**Source:** NSI – GDP and inflation; BNB – data on trade balance, and FDI (preliminary data for 2021)

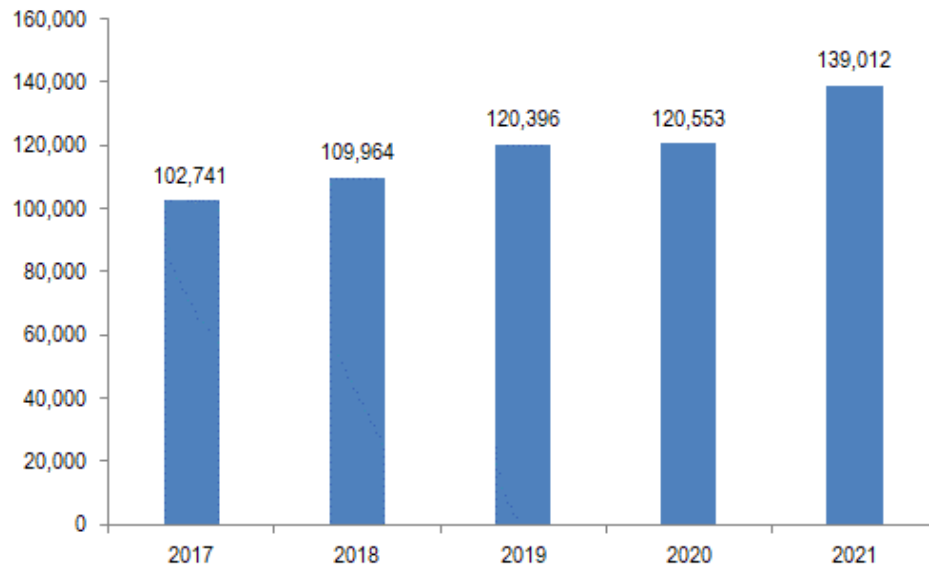
\* The real rate of change was calculated at comparable prices in 2015.

**Note:** Due to the different methodologies used, the export, import and trade balance data, compiled by the BNB for the balance of payments statistics differ from the export, import and trade balance data, compiled by the NSI for foreign trade statistics.

#### **Gross Domestic Product**

The data for 2021 show an increase in GDP of 7.6% on an annual basis in real terms. This represents a recovery of the country's economy, after the decline recorded in the previous year 2020, caused by the COVID-19 pandemic and the restrictive measures imposed against the spread of the virus. At current prices, the GDP for 2021 amounts to BGN 139,012 million (EUR 71,076 million), with BGN 20,212 (EUR 10,334) per capita.

**Figure I.1. Amount of GDP for the period 2017 - 2021, BGN million**

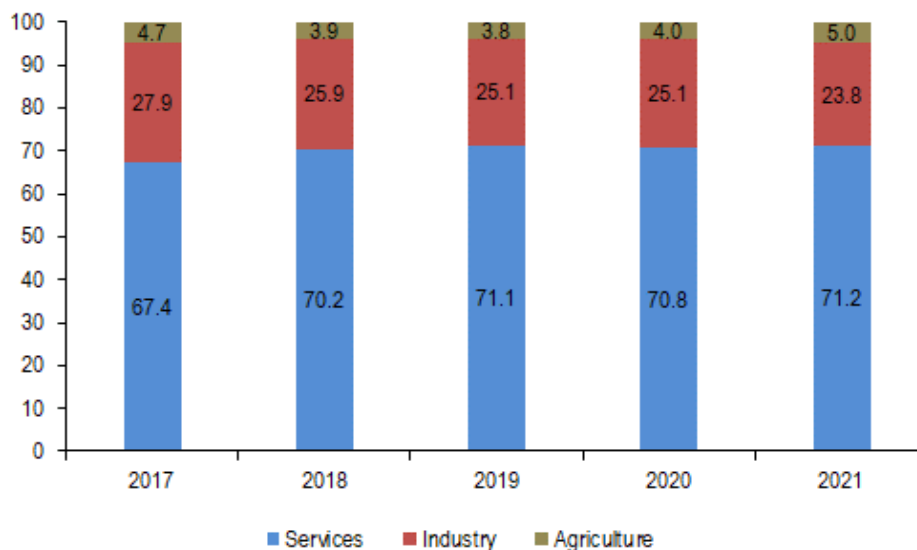


Source: NSI

### **Gross Value Added**

The gross value added generated by the sector of the national economy in 2021 amounted to BGN 121,607 million (EUR 62,177 million) at current prices, showing a real growth of 8.0% compared to the previous year. The added value of the entities from the agricultural sector in 2021 amounted to BGN 6,071 million at current prices. In real terms, it grew by 28.8% on an annual basis.

**Figure I.2. GVA by economic sectors for the period 2017 - 2021, %**



Source: NSI

By economic sectors, the GVA for 2021 is distributed as follows:

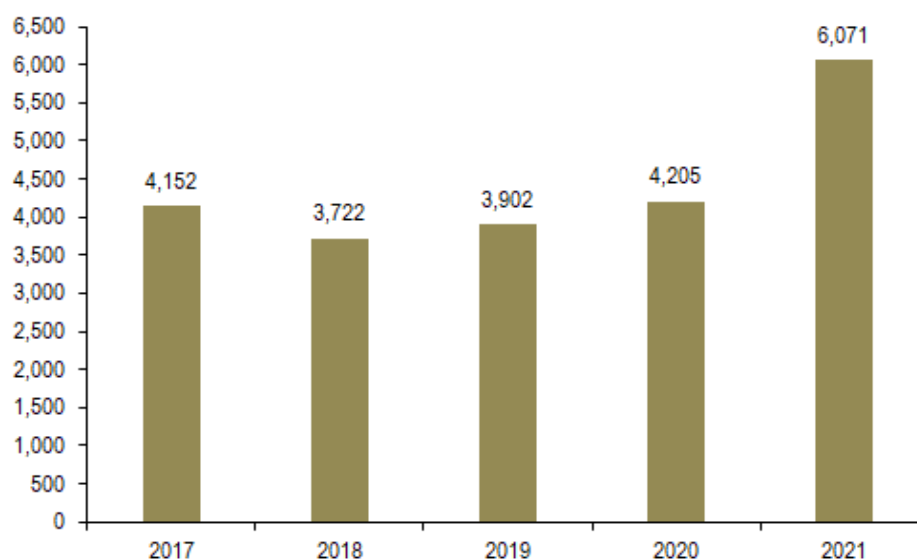
- Industry (including construction) - 23.8%;
- Services - 71.2%;
- Agricultural (agriculture, forestry and fisheries) - 5.0%.

The share of the agricultural sector in total GVA increased by 1.0 percentage points compared to the

previous year.

According to seasonally adjusted NSI data, in the first quarter of 2022 the total GVA for the country's economy grew by 4.1% compared to the corresponding period of 2021 in real terms, and in the second quarter - with 4.7%. Regarding the BSS, formed by the agricultural sector, the data for the first two quarters of 2022 indicate an increase of 3.6% and 1.3%, respectively, on an annual basis.

**Figure I.3. GVA in the Agriculture, Forestry and Fisheries sector, 2017 - 2021, BGN million**

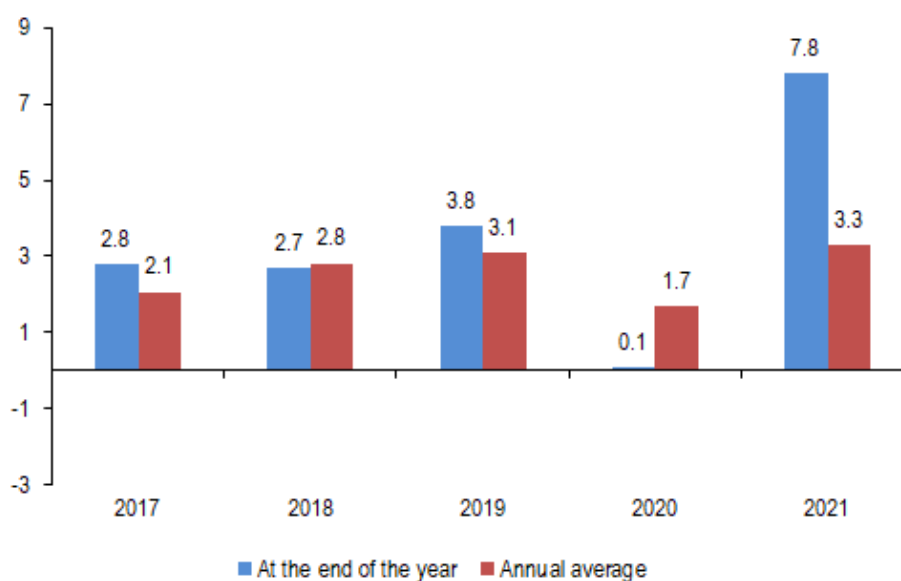


Source: NSI

### **Inflation**

The annual inflation for December 2021 compared to the same month of 2020 was 7.8%, and the average annual inflation for 2021 was 3.3%. As of December 2021, the food prices increased by 8.8% compared to the year before, those of non-food products increased by 9.5, catering prices - by 6.8%, and service prices - by 4.5%.

**Figure I.4. Inflation, 2017 - 2021, %**



Source: NSI

### **Employment and unemployment**

According to NSI data, in 2021 the total number of employed people in the country is 3,076.5 thousand, or 52.3% of the population aged 15 and over.

The number of persons employed in the agriculture, forestry and fisheries sector is 193.6 thousand, forming about 6.3% in the structure of employment by economic activities.

The average annual number of unemployed people is 171.1 thousand, and the unemployment rate is 5.3%.

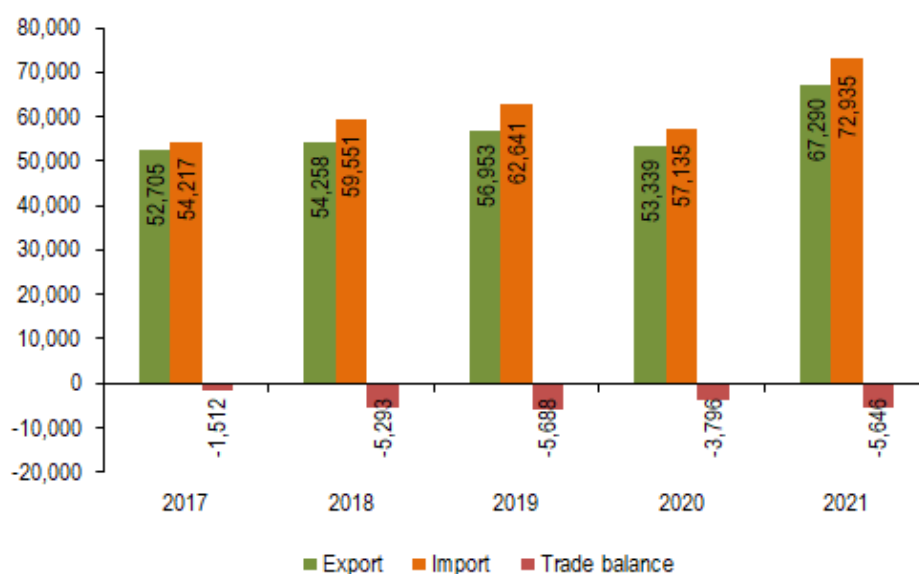
According to preliminary NSI data, in 2021 the average annual salary of employees under employment contracts was 18,608 levs, which is BGN 1,921 or 11.5% more than the previous year. In the sector of agriculture, forestry and fisheries there was a smaller increase on an annual basis - by 9.5%, up to an average of BGN 13,204 per person.

### **Export and import**

According to preliminary data of BNB on the balance of payments, in 2021 Bulgaria's exports amounted to BGN 67,290 million (EUR 34,405 million) - 26.2% above the level of the previous year, representing 48.4% of the country's GDP. A growth by 27.7% to BGN 72,935 million (EUR 37,291 million) or 52.5% of GDP, was reported also in imports.

As a result of the more significant increase in imports compared to exports, in 2021 the negative trade balance for Bulgaria grew to BGN 5,646 million (EUR 2,887 million), compared to a deficit of BGN 3,796 million (EUR 1,941 million) for 2020

**Figure I.5. Export, import and trade balance for the period 2017 - 2021, BGN million**

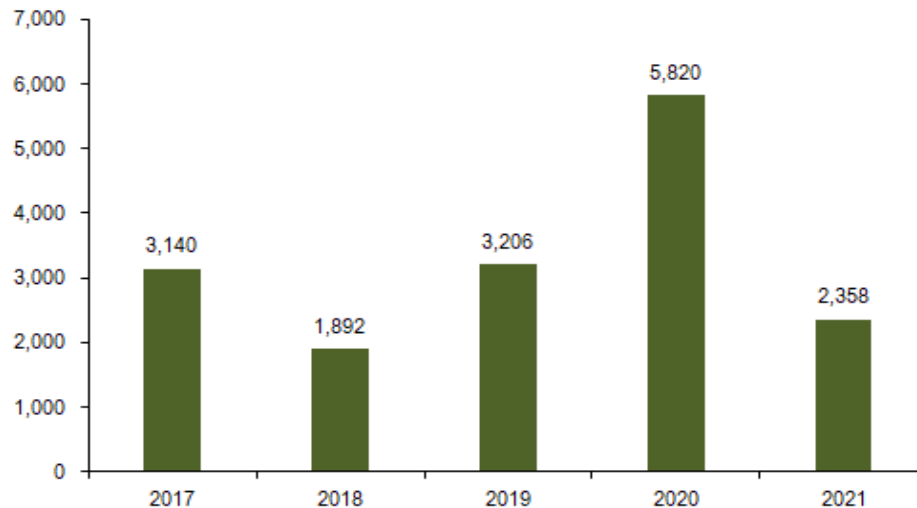


Source: BNB (preliminary data for 2021)

### **Foreign Direct Investment**

According to preliminary data of the BNB, foreign direct investment in the country in 2021 amounted to BGN 2,358 million (EUR 1,205 million), showing a decrease of 59.5% on an annual basis. Direct investment during the year represented 1.7% of GDP, compared to 4.8% in 2020.

**Figure I.6. Foreign Direct Investment, 2017 - 2021, BGN million**



Source: BNB (preliminary data for 2021)

Within 2021, the most investments are attracted in the sectors "Financial and insurance activities" (1,009.9 million euros), "Creation and distribution of information and creative products; telecommunications" (245.2 million euros) and "Professional activities and scientific research" (208.1 million euros). Net foreign investment in agriculture, forestry and fisheries during the year amount to EUR 5.4 million.

## II. DEVELOPMENT OF THE AGRICULTURAL SECTOR IN 2021 AND FORECASTS FOR 2022

### 1. Use of agricultural land and structures in agriculture

#### 1.1. Use of agricultural land

The area designated for agriculture in 2021 was 5,227,350 ha, which is about 47% of the territory of the country.

**Table II.1. Arable land, utilized agricultural area and land designated for agriculture for the period 2017 - 2021, ha**

EMPLOYMENT	2017	2018	2019	2020	2021
wheat	1,197,768	1,237,736	1,250,478	1,203,964	1,247,453
barley	138,122	115,773	112,264	131,340	139,109
rye and triticale	30,639	29,767	28,163	25,875	35,053
oat	19,730	16,886	13,866	11,386	10,421
corn	461,085	478,357	641,555	642,373	633,735
other cereals	19,600	24,641	26,352	22,757	21,903
sunflower	934,715	859,910	789,604	888,200	840,185
tobacco	10,506	8,668	4,849	5,440	3,015
industrial oilseed crops	181,067	203,397	158,305	120,055	142,838
other industrial crops	58,848	46,640	57,878	65,209	64,261
potatoes	12,909	14,611	11,177	11,524	12,363
peas, beans, broad beans, lentils and other legumes	78,389	103,445	42,167	24,989	30,584
fresh vegetables	33,312	35,483	35,627	25,705	31,015
nurseries	///	///	///	///	///

EMPLOYMENT	2017	2018	2019	2020	2021
annual crops for feed	17,705	18,152	13,859	8,345	8,115
meadows sown with legumes and cereal grasses	117,951	118,619	124,333	127,286	127,287
fallow land	159,959	149,683	149,636	161,565	137,707
greenhouses	1,520	1,606	1,503	1,502	1,704
<b>ARABLE LAND:</b>	3,473,825	3,463,370	3,461,615	3,477,514	3,486,748
<b>Kitchen gardens</b>	15,258	14,836	14,636	14,231	13,728
orchards	84,320	88,829	90,221	91,339	90,261
vineyards - axenic culture	53,251	53,787	53,005	51,356	50,252
mixed perennials	8,220	8,312	7,813	7,120	6,820
nurseries	2,304	2,100	1,699	1,703	1,709
<b>Total perennials:</b>	148,094	153,029	152,738	151,518	149,042
Greenhouses	///	///	///	///	///
<b>Permanent grasslands and meadows-orchards</b>	1,392,352	1,399,041	1,408,481	1,403,988	1,397,079
<b>UTILIZED AGRICULTURAL AREA:</b>	5,029,529	5,030,276	5,037,470	5,047,252	5,046,597
Non-cultivated land	194,873	195,918	185,455	180,651	180,753
<b>LAND DESIGNATED FOR AGRICULTURE:</b>	5,224,402	5,226,194	5,222,925	5,227,902	5,227,350

Source: MA, Agrostistics Department

The **utilized agricultural area (UAA)** is formed by arable land, permanent crops, nurseries, permanent grasslands and kitchen gardens. In 2021 it amounted to 5,046,597 ha (without significant change compared to last year), which was 45.5% of the country's territory.

The **arable land** includes the areas where crop rotation is applied, the temporary meadows with cereals and legumes, the fallow land and the greenhouses. In 2021, the arable land increased by 0.3% annually, to 3,486,748 ha or 69.1% of the utilized agricultural area.

**Orchards** in 2021 represented 1.8% of the UAA of the country, with the areas occupied by them being 90 261 ha or 1.2% less than the previous year.

**Vineyards - axenic culture** - in 2021 they occupied 50 252 ha, which was 2.1% less than in 2020. The share of UAA vineyards in the country was 1%.

**Non-cultivated land** includes both abandoned permanent crops and arable land, which have not been used for agricultural production for more than five years, but their operational recovery is possible with minimal resources. In 2021, uncultivated land occupied 180,753 ha (about 1.6% of the country's area) - a marginal 0.06% above the previous year's level.

## 1.2. Use of agricultural parcels

### 1.2.1. Land Parcel Identification System

The Land Parcel Identification System (LPIS) is a main part of the Integrated Administration and Control System, on the basis of which the declaration of the areas for support takes place and the control of eligibility for payment of the declared areas is carried out. Therefore, the data in it must be as up-to-date and reliable as possible.

In 2021 and 2022, the maintenance of LPIS data covers the following activities:

- Update of the digital orthophoto map (DOM) of the country based on aerial photography in 2021 was 30.64% (34,000 sq. km), and in 2022 it is projected to be 38.17% (42,363.18 sq. km). The update is carried out within the framework of a contract concluded pursuant to the Public Procurement Act with



reg. No RD51-54 dated 19.05.2020 for photographing and DOM preparation in the period 2020-2022, with contractor "EURO GEO SENSE 2019" DZZD;

- Update of the physical blocks as per the new DOM - borders, long-term use, layer "Areas eligible for support" according to the changes that have occurred in the use of agricultural areas and their condition;
- Carrying out field inspections, using GNSS devices, to measure and survey the inspected physical blocks in which areas outside the block boundaries or outside the layer "Areas eligible for support" (16,207 physical blocks with a total area) have been declared for support 415,478.17 ha for 2021);
- Recording the findings and measurements from these field inspections in the LPIS databases;
- Recording the findings from the on-site inspections carried out by the Technical Inspectorate Directorate of the Paying Agency in the LPIS databases;
- Update of a specialized layer "Temporary grassland", used in the green payment calculations;
- Updating of a specialized layer "Environmentally friendly areas", containing landscape elements in the arable lands for the needs of green payments;
- Performing quality control of the LPIS data and preparation of the annual report on the state of the LPIS to the European Commission;
- The updated physical blocks and the layer "Areas eligible for support" are used to make administrative checks in order to determine area-related payments;
- Updating of a specialized layer "Permanent grassland" by issuing orders on individual applications.

### 1.3. Registration of farmers

Pursuant to Ordinance No. 3 of 1999, the Register of Farmers serves to collect information about farmers and their activities in order to support agriculture and rural development.

The activity on keeping of a register of farmers covers registration of new farmers, re-registration and updating of the data for already registered ones, as well as deregistration of farmers upon termination of their activity.

In the 2020/2021 business year, the total number of registered farmers was 76,965, and in the 2021/2022 business year (as of June 2022) - 71,947.

**Table II.2. Farmers registered under Ordinance No. 3/1999**

	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022*
Total number of registered farmers	98,303	96,476	93,023	88,162	80,905	76,965	71,947

Source: MA, Agricultural Parcels Identification Directorate

\* Data as of June 2022

## 1.4. Participation of the State Land Fund (SLF) in land relations in Bulgaria

### 1.4.1. Provision of SLF own terrains SLF for rent or lease

Agricultural lands from the SLF are provided for lease and rent following a tender procedure in accordance with the provisions of the Agricultural Land Ownership and Use Act (ALOUA) and the Rules for implementation of the ALOUA. As of 2021, the total amount of agricultural properties provided for rent or lease by the SLF to individuals and legal entities amounted to 107,379 ha.

In 2021, based on the provisions of Art. 24A (1) of the ALOUA and Art. 47B (1) of the RIALOUA, tenders were held for renting and leasing of available agricultural lands from the SLF in the country for business year 2021/2022 business year. Of the announced 44,051 ha of available agricultural land, 19,035 ha were contracted, and a total of 929 lease/rental agreements were concluded.

#### **1.4.2. Distribution of pastures, grasslands and meadows, part of a state and municipal land fund pursuant to art. 37 and the ALOUA**

The pastures, grasslands and meadows part of the state and municipal land fund are leased or rented to owners or users of livestock facilities with grazing farm animals registered in the Integrated Information System of the BFSa, according to the number and type of registered animals, at prices determined by a market mechanism.

The areas determined for the 2021/2022 economic year from the municipal land fund (MLF) are 105,661 ha for general use and 351,142 ha for individual use. The submitted applications for allocation are 4,828 for 142,040 ha, with 60,399 ha allocated for general use, and 104,992 ha for individual use of pastures, meadows and meadows. The announced by order of the Minister of Agriculture pastures, meadows and meadows of the SLF amount to 28,662 ha. 329 applications for 24,441 ha were submitted, 5,986 ha were allocated. The concluded contracts for use, after distribution of MLF, are 3,847 pieces for 57,522 ha, for SLF - 114 pieces for 2,670 ha. The conducted tender procedures and concluded one-year lease contracts for lease of properties from MLF are 674 for 11,189 ha, for SLF - 235 for 5,998 ha.

#### **1.4.3. Establishment of limited rights in rem in SLF lands**

In 2021, more than 80 requests from mayors of municipalities, legal entities and individuals were considered in relation to investment intentions for construction or expansion of site and/or linear sites affecting lands owned by the SLF, were considered. Pursuant to Art. 24c of the ALOUA, 32 preliminary consents were prepared for assigning the elaboration of a detailed development plan for the design of sites and routes in connection with the construction of water supply and sewage networks, routes of power lines and elements of the technical infrastructure.

13 contracts for establishment of limited rights in rem in lands from the state land fund were concluded on the grounds of art. 24 (1) of the ALOUA, Art. 47 (20, 21, 24) of the RIALOUA.

#### **1.5. Consolidation of agricultural land**

Procedures for consolidation of agricultural lands started in 15 lands on the territory of the country - Nikolaevo, Municipality of Plevna, District of Plevna; Suhindol, Municipality of Suhindol, District of Veliko Tarnovo; Fakia, Municipality of Sredets, District of Burgas; Asenov, Municipality of Strazhitsa, District of Veliko Tarnovo; Lenkovo, Municipality of Gulyantsi, District of Plevna; Ugarchin, Municipality of Ugarchin, District of Lovech; Radyuvne, Municipality of Lovech, District of Lovech; Dolno Yabalkovo, Municipality of Sredets, District of Burgas; Gorno Ablanovo, Municipality of Borovo, District of Ruse; Gorsko Slivovo, Municipality of Letnitsa, District of Lovech; Zhrebino, Municipality of Elhovo, District of Yambol; Lalkovo, Municipality of Elhovo, District of Yambol; Markovo, Municipality of Kaspichan, District of Shumen; Strazhitsa, Municipality of Strazhitsa, District of Veliko Tarnovo; Strelets, Municipality of Gorna Oryahovitsa, District of Veliko Tarnovo, with applications covering about 10,000 ha.

#### **1.6. Agricultural Land Protection Activities**

In 2021, the Agricultural Land Commission considered a total of 804 proposals for changing the designation of agricultural land, issuing decisions for a total area of 851 ha.

The commissions of the Regional Directorates of Agriculture considered a total of 1,331 proposals for changing the designation of agricultural land, and decisions have been made for an area of 440 ha.

The procedure for changing the purpose of agricultural land for non-agricultural needs in accordance with the Agricultural Land Protection Act is two-stage and it includes: first stage - approval of a design site; second stage - changing the purpose of the agricultural land. A mandatory document for the first stage is an effective decision or opinion issued pursuant to chapter six of the Environmental Protection Act and under Art. 31 of the Biodiversity Act of the respective Regional Environment and Water Inspection Agency (REWIA) - requirement of Art. 21 (1) of the Occupational Safety and Health Act and Art. 30 (1.6) of the Regulations for the implementation of the Agricultural Land Protection Act. The commissions under Art. 17 (1) of the Agricultural Land Protection Act do not approve sites and do not change the purpose of agricultural land if there is an opinion

issued by REWIA/MoEW, in which it is recorded that the construction of the site will have an adverse effect on species and habitats.

Within the year, no new areas were determined for reclamation. No reclaimed land was accepted to be added to lands for agricultural use.

## 2. Economic and Production results in 2021 and forecast data for 2022

### 2.1. Economic Accounts for Agriculture for 2021

**Table II.3. Main economic indicators for agriculture for the period 2019 - 2021, million BGN**

	Indicators	2019	Change 2020/2019 %	2020	Change 2021/2020 %	2021
1	Value of crop and livestock production (at producer prices *), including:	7,628.0	-6.5%	7,131.9	40.6%	10,027.1
1.1	Crop production	5,760.9	-9.5%	5,212.4	55.2%	8,088.6
1.2	Livestock production	1,867.1	2.8%	1,919.5	1.0%	1,938.5
2	Agricultural services	492.2	-6.1%	462.0	18.2%	546.3
3	Non-agricultural inseparable secondary activities	198.9	2.6%	204.1	-0.9%	202.3
4	Value of gross production from the Agriculture sector (at producer prices *) (line 4 = line 1.1 + line 1.2 + line 2 + line 3)	8,319.1	-6.3%	7,798.0	38.2%	10,775.7
5	Value of final production from the Agriculture sector (at basic prices **)	8,234.8	-4.5%	7,866.1	37.0%	10,776.2
6	Intermediate consumption (excluding internal turnover)	4,777.4	-6.9%	4,446.6	26.2%	5,612.8
7	Gross value added at basic prices	3,457.4	-1.1%	3,419.5	51.0%	5,163.4

Source: NSI

\* Producer prices - prices, excl. subsidies on products

\*\* Basic prices - prices, incl. subsidies on products

#### 2.1.1. Value of gross production of the Agriculture sector

The value of the gross production of the Agriculture sector for 2021 at current producer prices (according to final data) amounted to BGN 10,775.7 million, showing a sharp growth of 38.2% compared to the previous year. It is formed by the value of:

- Crop production - BGN 8,088.6 million (with a share of 75.1%);
- Livestock production - BGN 1,938.5 million (with a share of 18.0%);
- Agricultural services - BGN 546.3 million (with a share of 5.1%);
- Production from inseparable secondary activities - BGN 202.3 million (with a share of 1.9%).

The biggest contribution to the increase in the value of the gross production from the sector is the increase in production from the Plant Breeding sub-sector (by BGN 2,876.2 million or by 55.2% compared to the previous year). The value of production from the Livestock breeding sub-sector (by BGN 19.0 million or 1.0%) and agricultural services (by BGN 84.3 million or 18.2%) also increased. Only for non-agricultural inseparable secondary activities a slight decrease (by less than 1% on an annual basis) was observed.

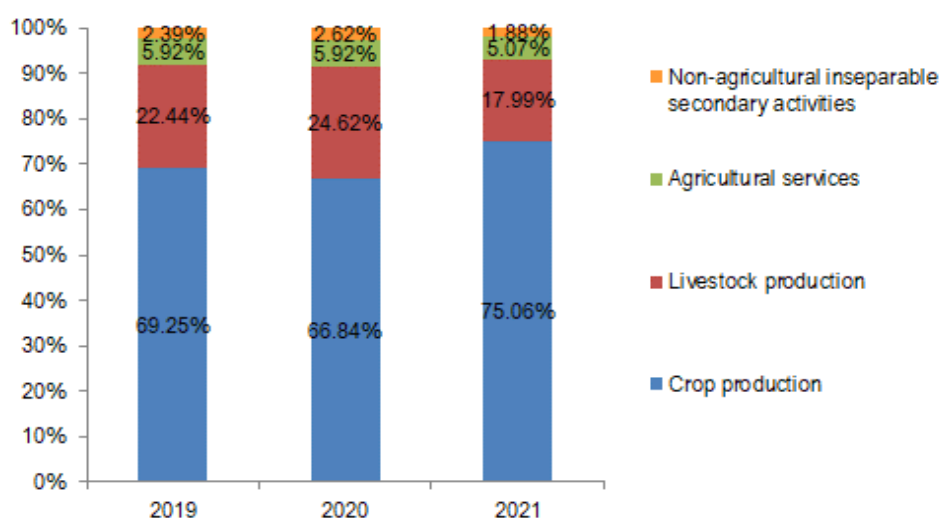
All of the main divisions of the crop production sub-sector showed growth of the production value compared to the previous 2020 - grain production (by BGN 1,846.2 million or 68.7%), technical crops production (by BGN 926.6 million or by 56.5%), vegetable production (by BGN 34.6 million or 10.1%), fruit production (by BGN 32.0 million or 10.9%).

In the Livestock sub-sector, there was an annual increase in the value of cattle production - by 5.9%

(BGN 9.6 million), egg production - by 4.8% (BGN 10.5 million), and milk production - by 0.6% (4.2 million BGN). A decrease was registered in the value of pig breeding - by 10.1% (BGN 32.3 million) and small cattle - by 7.2% (BGN 10.6 million).

The total amount of agricultural products sold (crop and livestock products) in 2021 amounted to BGN 8,872.0 million or 82.3% of the gross production of the Agriculture sector (Annex 1). The crop production sold during the year amounted to BGN 7,324.5 million (68.0% of the gross production), and the sold livestock production - amounted to BGN 1,547.5 million (14.4% of the gross production). Outside the sector, crop and livestock production were sold for BGN 8,227.4 million (including export), and within sales between agricultural enterprises - for BGN 644.6 million.

**Figure II.1. Structure of the value of gross production from the Agriculture sector for the period 2019 - 2021, %**



Source: MA calculations based on NSI data

The agricultural units used for production purposes agricultural products (seeds, planting material, feed, etc.) produced during the year in the amount of BGN 625.7 million (5.8% of gross production).

For own use in the farms agricultural production was used (mainly agricultural products processed in the farm) amounting to BGN 277.8 million (2.6% of gross production).

Produced goods - fixed capital (production of productive animals/livestock) for own needs amounted to BGN 141.7 million (1.3% of gross production).

### 2.1.2. Final Production Value

According to final data, the value of final production from agriculture (value of production after deducting internal turnover) at basic prices (prices including subsidies by products) for 2021 amounted to BGN 10,776.2 million and showed an increase of 37% (by BGN 2,910.1 million) compared to the previous year (Appendices 4 and 5).

The structure of the final production in agriculture for 2021 preserved the formed ratios between the branches of the sector, outlined in terms of the gross production value. And in the final production the relative share of the crop production is the largest - 74.8%. For 2021, the relative share of livestock production was 18.2%, of agricultural services - 5.1% and of the production of inseparable non-agricultural secondary activities - 1.9%.

Cereals and oilseed crops remain with the largest share in the final production value in the sector. The two groups of crops together (respectively cereals - amounting to BGN 4,429.3 million and oilseed crops - BGN 2,312.8 million) account 62.6% of the value of production in the Agriculture sector in 2021.

The following crop products had the greatest contribution to the formation of the final production in the

sector in 2021:

- Soft wheat - a share of 25.4% with BGN 2,741.0 million.

The production value increased by 85.9% compared to the previous year, due to the significant increase in physical volume by 52.8%, and the price growth by 21.6%.

- Sunflower - a share of 18.3% with BGN 1,974.4 million;

The physical volume of sunflower production increased by 15.3% on annual basis. In terms of value, the subdivision showed a growth of 58.6%, influenced by the growth of the physical volume, and the increase in prices (by 37.6%) compared to the previous year.

- Corn for grain - a share of 12.6% with BGN 1,358.4 million;

In the case of corn for grain, there is also an increase in the value of the final production on an annual basis - by 52.0%, determined by the increase in physical volume (by 14.0%) and prices (by 33.3%).

- Rapeseed - share of 3.1% with BGN 334.3 million.

The value of production from this production line increased significantly - by 72.8% compared to the previous year, as a result of the parallel increase in both the physical volume of production (by 31.6%) and prices (by 31.3%).

In 2021, the Fruit and Vegetables (including potato production and vineyards) sector generated production amounting to BGN 851.0 million, 7.3% more than the previous year. The sector forms a share of 7.9% in the final production value. The production of vegetables (including potatoes) amounted to BGN 489.8 million (share of 4.5% in the value of the final production), and of fruit - in the amount of BGN 361.2 million (share of 3.4%). The final production from the Fruit sub-sector increased by 8.0% in value, while the Vegetables sub-sector (including potatoes) increased by 6.7%.

For fruit, an increase in physical volume was observed in almost all production sub-divisions. There is a decrease in the production volume of peaches (by 7.2%), which is accompanied by a significant increase in prices (by 93%), which leads to a positive change in the value of production on an annual basis by 79.0%. In the case of vegetables, an increase in the physical volume of production was recorded in all sub-divisions. The prices of vegetables, except for tomatoes, are decreasing on an annual basis, which is a deterrent to a more substantial growth in the value of production from the sub-sector.

The value of the end production from the Animal Husbandry sub-sector for 2021 remains at the level of the previous year, amounting to BGN 1,962.6 million. No change was observed in the physical volume of the industry's output. There is a certain increase in the prices of livestock products - especially for eggs - by 8.7%, milk - by 5.2% and small cattle - by 3.8%.

The divisions of the livestock subsector with the largest contribution to the total value of final production from the Agriculture sector in 2021 were:

- Milk production - share of 6.8% with BGN 729.7 million.

In the production of milk on an annual basis, a decrease of 0.5% in value was observed - the result of a shrinkage of the physical volume by 5.4%, which was not compensated by the increased prices.

- Poultry - a share of 2.7% with BGN 293.5 million.

In the poultry farming, there was a growth compared to the previous year, both in terms of physical volume and prices. As a result, the production increased by 5.1% in value.

- Pig breeding - a share of 2.7% with BGN 287.2 million.

The value of production from pig breeding decreased by 10.1% on an annual basis, under the influence of the decrease in prices (by 18.4%) despite the growth of the physical volume (by 10.2%).

- Cattle breeding - share of 1.8% with BGN 198.8 million.

For 2021, the subsector registered a growth of 5.2% on annual basis, as a result of an increase in both physical volume (by 3.9%) and prices (by 1.3%).

- Sheep and goat breeding - share of 1.7% with BGN 186.6 million.

The physical volume of production from the subsector decreased (by 10.4%). An increase of 3.8% was observed in prices. Thus, the production in value decreased by 6.9% on an annual basis.

- Egg production - share of 1.7% with BGN 181.9 million (growth of 2.9%).

The physical volume of production decreased with 5.3% compared to the previous year. However, in value, the production sub-line increased with 2.9% due to an increase in prices (by 8.7%).

### 2.1.3. Intermediate consumption

The intermediate consumption used to generate the final production in the sector in 2021 amounted to BGN 5,612.8 million, showing an increase by 26.2% on annual basis (Annexes 3 and 4).

The largest share in its structure are the feed expenses - 21.2% (1,190.7 million BGN) and for fuels and oils - 21.2% (1,191.1 million BGN), followed by the expenses for fertilizers and soil improvers - 13.2% (741.6 million BGN), agricultural services - 9.7% (546.3 million BGN), maintenance and repair costs for machines and small equipment - 7.0% (391.6 million BGN).

Compared to the previous year, there was growth in all elements of the intermediate consumption, with the exception of veterinary costs. The biggest increase was in the costs of fertilizers and soil improvers - by 63.0% (BGN 286.6 million), the costs of fuels and oils (fuels, electricity, etc.) - by 31.3% (BGN 283.6 million), feed costs - by 29.6% (BGN 272.3 million). The veterinary expenses remain at the level of the previous year.

In 2021, intermediate consumption represented 52.1% of the production value, or 100 final production units were created with the use of 52.1 intermediate consumption units.

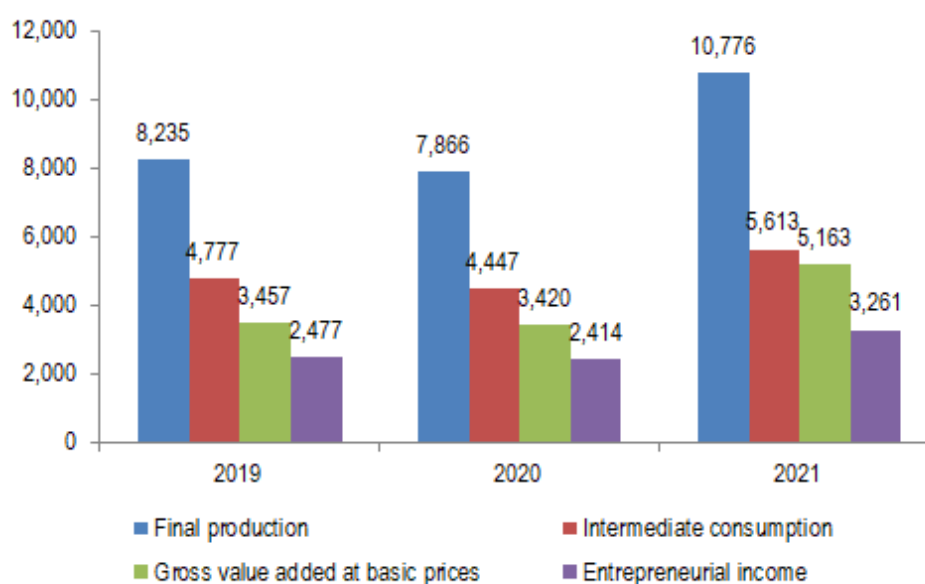
### 2.1.4. Gross Value Added

The gross value added created in the agriculture in 2021 amounted to BGN 5,163.4 million (at basic prices), increasing by 51.0% (by BGN 1,743.9 million) on annual basis (Annexes 4 and 5).

### 2.1.5. Entrepreneurial income

For 2021, the entrepreneurial income in the sector amounted to BGN 3,260.8 million - by 35.1% above the level of the previous year (Annex 4).

**Figure II.2. Basic economic indicators for the Agriculture sector for the period 2019 - 2021, BGN million**



Source: NSI

## 2.2. Plant Growing Production Results

The agrometeorological conditions in 2021 are characterized by increased dynamics, with periods of short-term cooling and excessive temperatures.

The prolonged drought at the end of the summer of the previous year 2020 prevented the timely implementation of seasonal tillage, which is why in some parts of the country the sowing of winter rapeseed was postponed to October, after the agrotechnical deadlines. This resulted in later emergence and the inability of plants to overwinter properly, resulting in frost damage in canola.

In part of the Polish regions, at the beginning of spring, conditions were created for the formation of frosts. Serious damage has been reported to early blooming stone fruit species (apricots, cherries, etc.).

The hailstorms, accompanied by heavy rains, caused severe damage to agricultural crops in May, June, and the end of August.

The extremely high temperatures in August resulted in shortened interphase periods in the development of late spring crops. In some of the later corn hybrids, the deepening deficit of soil moisture in the first half of August was the reason for the premature yellowing and drying of the foliage.

Some of the crops were ensiled before completing the reproductive stage of their development.

In September, the agrometeorological conditions were determined by relatively dry weather and temperatures close to the climatic norms for late summer and early autumn. The prolonged drought at the end of summer and the beginning of autumn also hindered the pre-sowing processing of the areas intended for sowing with autumn crops. Therefore, in many places in the country, the agrotechnical deadlines for sowing winter rapeseed were missed.

At the beginning of October, in some places in Western Bulgaria and in the high fields (Vidin, Knezha, Kyustendil, Dragoman, Kazanlak), minimum temperatures of about 0-1°C and damage to some unharvested vegetable crop by frost (tomatoes and pepper) were observed. After the prolonged drought, the widespread, excessive rains around 10th and 20th of October waterlogged and flooded some agricultural areas. In some places in the Upper Thracian lowland (Plovdiv region) rainfall 3-4 times higher than the norm for October was recorded, which submerged part of the vegetable crops (cabbage, cauliflower, broccoli, Chinese cabbage) from the autumn production. In October, the vegetation processes in the few areas sown with winter cereals took place at a slower pace.

The situation during the winter months of 2021 was dynamic - alternating periods of low temperatures followed by rising temperatures, combined with excessive rainfall, which led to waterlogging in many parts of the country.

Reported crop damage in 2021 was caused by the following adverse weather events: frost, storm/torrential/continuous rain with hurricane force winds, flood, hail and drought.

### 2.2.1. Grain production

In general, in 2021 there was an increase in the production of the main cereals in the country compared to the previous year (except for oats and rice), mainly due to the obtained higher average yields per decare.

**Table II.4. Grain production in 2020 and 2021 harvest years**

Crop	Harvested areas (ha)			Average yield (tons/ha)			Production (tons)		
	2020	2021	Change 2021/2020	2020	2021	Change 2021/2020	2020	2021	Change 2021/2020
Wheat	1,200,175	1,206,187	0.5%	3.93	5.90	50.4%	4,710,993	7,119,474	51.1%
Rye	5,352	7,633	42.6%	1.84	2.17	18.3%	9,823	16,567	68.7%
Triticale	13,559	15,939	17.6%	2.95	3.28	10.9%	40,049	52,206	30.4%

Crop	Harvested areas (ha)			Average yield (tons/ha)			Production (tons)		
	2020	2021	Change 2021/2020	2020	2021	Change 2021/2020	2020	2021	Change 2021/2020
Barley	130,757	126,310	-3.4%	4.20	5.41	28.9%	549,079	683,406	24.5%
Oat	13,397	9,937	-25.8%	2.27	2.37	4.5%	30,426	23,579	-22.5%
Corn for grain	581,532	573,023	-1.5%	5.11	5.89	15.4%	2,969,210	3,376,278	13.7%
Rice	12,349	12,053	-2.4%	5.72	4.86	-15.1%	70,597	58,526	-17.1%

Source: MA, Agrostistics Department

### Wheat

Wheat production in 2021 amounted to the record 7,119.5 thousand tons - 51.1% more compared to 2020, due to the favorable climatic conditions in the process of crop development, which led to a significant increase in average yield (with 50.4%). The areas sown with wheat harvest for 2021 are without significant change on an annual basis - 1,208,457 ha, of which 1,206,187 ha (99.8%) have been harvested. The relative share of the harvested areas with wheat from the total harvested areas with cereals for the production of grain is 61.7%.

The Northwest region has the largest share of harvested wheat areas - 22.9%, followed by the Northeast with 22.1% and the Southeast with 20.8%.

According to data from BSMAEC survey of the Agrostistics Department, in 2021 wheat-on-wheat is grown on 5.8% of the area, compared to 6.5% in the previous year. On about 93.5% of the areas with wheat harvest for 2021, a good crop rotation was carried out. After trench crops, 78.3% of the area was planted with wheat, compared to 74.4% in 2020. The wheat rotation in 2021 included 1.9% fallow lands.

### Rye and triticale

The grain produced from the rye harvest in 2021 was 68.7% above the previous year's level, as a result of a combination of a larger area harvested (by 42.6%) and a higher average yield (by 18.3%).

The harvested areas with triticale in 2021 increased by 17.6% compared to 2020, and the average yield - by 10.9%. Thus, the production of triticale reached 52.2 thousand tons - 30.4% more on an annual basis.

The most harvested areas with rye are in the southwest region - 2,504 ha, and with triticale - in the south-central region - 7,154 ha.

### Barley

In 2021, the country produced 683.4 thousand tons of barley. This represents a 24.5% increase compared to the previous year, with the 28.9% higher average yield offsetting the 3.4% decrease in the harvested area.

The largest area of barley during the year was in the Southeast region (30.8% of the total harvested area in the country), followed by the Northeast region (23.2%).

In view of crop sequence, a good crop rotation was performed on 77.8% of the areas with barley in 2021. The share of sunflower is still the highest - 43.1%. The fallows included in the barley crop rotation in 2021 are 2.3%. About 61% of the barley area is sown after the trench crops.

### Oat

Oat production fell by 22.5% compared to 2020, to 23.6 thousand tons, due to the reduced size of harvested areas. The average yield increased by 4.5% compared to the previous year. Most areas with oat were harvested in the Southwest region (28.9% of the total harvested area in the country).



## Corn for grain

The obtained corn for grain in 2021 increased by 13.7% compared to the previous year, to 3,376.3 thousand tons. This is due to the higher average yield (by 15.4%), despite the slight decrease in harvested areas.

The areas sown with corn for grain in 2021 were 579,613 ha, which is 1.2% below the level of 2020. Of these, 573 023 ha (98,9%) were harvested - 1.5% less on an annual basis.

The northwestern region (35.8%) has the largest share in the total harvested corn fields during the year, followed by the north-central region (31.6%) and the northeastern region (25.9%).

As in previous years, corn has the largest share of wheat predecessor - 55.5%. The share of barley included in the corn crop rotation is 4.7%.

## Rice

In 2021, the country produced 58.5 thousand tons of rice husk - 17.1% less compared to the previous year. There was a decrease in both the harvested areas (by 2.4%) and the average yield (by 15.1%).

### 2.2.2. Oilseed crops

The main oilseed crops grown in our country are sunflower and winter rapeseed.

**Table II.5. Oilseed production in 2020 and 2021 harvest years**

Crop	Harvested areas (ha)			Average yield (tons/ha)			Production (tons)		
	2020	2021	Change 2021/2020	2020	2021	Change 2021/2020	2020	2021	Change 2021/2020
Sunflower	821,922	836,469	1.8%	2.09	2.38	13.6%	1,720,299	1,989,068	15.6%
Rapeseed	119,137	130,809	9.8%	2.32	2.85	22.4%	276,846	372,116	34.4%

Source: MA, Agrostistics Department

## Sunflower

Sunflower production in 2021 amounted to 1,989.1 thousand tons. The amount is 15.6% above the level of the previous year, taking into account an increase in both the harvested areas - by 1.8% and the average yield - by 13.6%. The areas sown with sunflower during the year were 839,314 ha - by 1.8% more on an annual basis.

The areas with sunflower in the North-West region represent 24.8% of the total harvested areas in the country in 2021, followed by the North-East region with 23.4%.

The largest share of sunflowers is located on a wheat predecessor - 65.9%. Barley, included in the sunflower crop rotation during the year, is 6.7%.

## Rapeseed

In 2021, 372.1 thousand tons of rapeseed were produced in the country, which is 34.4% more compared to 2020. The areas sown with rapeseed in 2021 were 131,334 ha, of which 130,809 ha were harvested - an increase of 9.8% compared to the previous year. The average yield also increased on an annual basis - by 22.4%.

### 2.2.3. Grain market monitoring

In 2021 there was an increase in the total grain storage capacity in Bulgaria.

During the year the Register of grain storage sites in the country was updated, as 50 new grain storage sites were entered, 96 circumstances of the registered sites were changed and 15 were deleted. As of 31.12.2021, the active grain storage sites was 4,153 total, with a capacity of 17,081,944 tons.

#### **2.2.4. Quality grading of harvest 2021**

In order to carry out a representative characterization of barley, wheat, corn, sunflower and rice barley from the 2021 harvest, 3,126 samples of 4,718,715 tons of the harvested grain were taken and analyzed.

##### **Wheat quality in the 2021 harvest**

The final quality results show that 49.4% of the wheat produced in 2021 has milling and baking qualities that meet the requirements of traders and processors.

The allocation of grain in groups is as follows:

- First group - 3.4%, compared to 5.6% in 2020;
- Second group - 7.3%, compared to 11.6% in 2020;
- Second B group - 38.7%, compared to 38.7% in 2020;
- Third group - 50.6%, compared to 43.8% in 2020.

The average values of the main indicators that determine the quality characteristics of the grain from the 2021 harvest for the country are:

- moisture content:  $11.1\% \pm 0.6\%$ , compared to  $11.4\% \pm 0.5\%$  in 2020;
- hectolitre mass:  $76.6 \text{ kg} / 100 \text{ dm}^3 \pm 2.4 \text{ kg} / 100 \text{ dm}^3$ , at  $75.8 \text{ kg} / 100 \text{ dm}^3 \pm 3.20 \text{ kg} / 100 \text{ dm}^3$  for 2020;
- wet gluten yield:  $23.1\% \pm 3.2\%$ , compared to  $26.3\% \pm 4.6\%$  in 2020;
- gluten release:  $7.1 \text{ mm} \pm 1.5 \text{ mm}$ , at  $7.5 \text{ mm} \pm 1.7 \text{ mm}$  for 2020;
- baking strength:  $54.8 \text{ cond. units} \pm 5.2 \text{ cond. units}$ , at  $58.5 \text{ cond. units} \pm 6.9 \text{ cond. units}$  for 2020;
- protein content:  $11.7\% \text{ v.c.} \pm 1.2\% \text{ v.c.}$ , at  $13.1\% \text{ v.c.} \pm 1.8\% \text{ v.c.}$  for 2020;
- falling number:  $353.0 \text{ sec.} \pm 40.7 \text{ sec.}$ , at  $348.7 \text{ sec.} \pm 46.9 \text{ sec.}$  for 2020.

##### **Barley quality in the 2021 harvest**

The final results obtained show that 78.4% of the harvested barley in 2021 was malting barley, and 21.6% was for feed. Compared to the previous year, there was an increase in the share of malting barley by 15.3 percentage points.

The average values of the main quality indicators of the barley harvest in 2021 were as follows:

- protein content:  $11.2\% \pm 0.7\%$ , compared to  $12.0\% \pm 0.9\%$  in 2020;
- hectolitre mass:  $62.4 \text{ kg}/100 \text{ dm}^3 \pm 2.4 \text{ kg}/100 \text{ dm}^3$ , at  $62.8 \text{ kg}/100 \text{ dm}^3 \pm 2.3 \text{ kg}/100 \text{ dm}^3$  for 2020;
- equality of batches:  $85.8\% \pm 7.8\%$ , compared to  $82.8\% \pm 7.7\%$  in 2020;
- humidity:  $11.6\% \pm 0.8\%$ , compared to  $11.8\% \pm 0.5\%$  in 2020;
- crop impurities:  $1.7\% \pm 1.8\%$ , compared to  $1.6\% \pm 1.3\%$  in 2020;
- other impurities:  $1.1\% \pm 0.9\%$ , compared to  $1.1\% \pm 1.0\%$  in 2020.

##### **Sunflower quality in 2021 harvest**

In 2021, the share of the sunflower batch with high technological qualities was high. Taking into consideration that in case of deviation from the basic norms it is mandatory to make refractive adjustment in case of impurities, and respectively allowance in case of moisture, the obtained results show that 88.3% of the analyzed sunflower grain meet the requirements of the fat content standard, at 78.6% in the previous year. Compared to 2020, there is a significant increase in the batch with regard to the oiliness indicator and the levels of previous years were reached, during which a representative grading of the harvested grain is carried out,

meeting the standard in terms of oiliness.

The amount of sunflower from the 2021 harvest, which meets the requirements of the standard for its quality at the time of its purchase, fully satisfies the needs of the processing industry - oil extraction and for the production of shelled sunflower seeds.

The average values of the main quality indicators of sunflower harvest 2021 are:

- moisture content:  $6.0\% \pm 0.4\%$ , compared to  $6.0\% \pm 0.4\%$  in 2020;
- fat content:  $44.5\% \pm 2.0\%$ , compared to  $43.3\% \pm 2.4\%$  in 2020;
- crop impurities:  $1.6\% \pm 0.8\%$ , compared to  $1.3\% \pm 0.6\%$  in 2020;
- other impurities:  $3.2\% \pm 1.7\%$ , compared to  $3.9\% \pm 2.0\%$  in 2020.

#### **Corn quality from the 2021 harvest**

The final results show that 99.6% of the analyzed batch meets the requirements of the corn for grain quality standard in terms of moisture and impurities, compared to 88.9% in 2020.

A total of 74.6% of the analyzed amount of corn for grain meet the criteria for starch content and the minimum limits laid down in the standard for moisture content and impurity content, compared to 50.4% in 2020.

The average values of the main quality indicators of the corn harvest in 2021 are:

- moisture:  $13.1\% \pm 0.9\%$ , compared to  $12.3\% \pm 0.7\%$  in 2020;
- crop impurities:  $4.7\% \pm 1.7\%$ , compared to  $3.0\% \pm 1.2\%$  in 2020;
- other impurities:  $0.9\% \pm 0.4\%$ , compared to  $1.0\% \pm 0.4\%$  in 2020;
- starch content:  $72.8\% \pm 0.7\%$ , compared to  $72.2\% \pm 0.7\%$  in 2020;
- hectolitre mass:  $71.1 \text{ kg} / 100 \text{ dm}^3 \pm 1.8 \text{ kg} / 100 \text{ dm}^3$ , at  $71.7 \text{ kg} / 100 \text{ dm}^3 \pm 1.8 \text{ kg} / 100 \text{ dm}^3$  in 2020;

#### **Rice husk quality in the 2021 harvest**

The average values of the main quality indicators of rice husk from the 2021 harvest are:

- moisture:  $12.9\% \pm 1.1\%$ , compared to  $12.9\% \pm 1.1\%$  in 2020;
- crop impurities:  $1.0\% \pm 0.5\%$ , compared to  $1.2\% \pm 0.7\%$  in 2020;
- other impurities:  $1.0\% \pm 0.9\%$ , compared to  $0.8\% \pm 0.6\%$  in 2020;
- red grains:  $0.1\% \pm 0.1\%$ , compared to  $0.4\% \pm 0.5\%$  in 2020;
- yellowed grains - none, such as in 2020, 2019, and 2018;
- bare grains:  $1.3\% \pm 0.6\%$ , compared to  $1.1\% \pm 0.6\%$  in 2020;
- hectolitre mass:  $57.7 \text{ kg} / 100 \text{ dm}^3 \pm 2.0 \text{ kg} / 100 \text{ dm}^3$ , at  $57.8 \text{ kg} / 100 \text{ dm}^3 \pm 1.9 \text{ kg} / 100 \text{ dm}^3$  in 2020.

### **2.2.5. Industrial Crops**

#### **Tobacco**

The tobacco production in 2021 amounted to 6,048 tons, which is 11.1% more compared to 2020. An increase in the planted areas by 19.8% on an annual basis, up to 3,892 ha, is reported.

#### **Cotton**

The amount of staple cotton harvested in 2021 was 1,462 tons - a decrease by 41.6% compared to the previous year. The harvested areas amounted to 2,354 ha - 28.2% less than in 2020, and the average yield was decreased by 18.6%, up to 621 kg/ha.

## Fiber hemp

In 2021, the areas sown with fiber hemp in the country were 155 ha. 163 tons of fiber were produced, with an average yield of 1,052 kg/ha.

### 2.2.6. Medicinal and aromatic plants

In 2021, the areas occupied by basic medicinal, aromatic and essential oil plants, such as Damask rose (rose flower), lavender (fresh flower), balm (dry mass), coriander (seed), fennel (seed), milk thistle (seed), etc., amounted to 55,451 ha, which is 4.4% less than in 2020. Harvested areas with these crops amounted to 50,060 ha, 5.8% below the level of the previous year.

**Table II.6. Production of basic essential oil crops from the 2020 and 2021 harvests**

Crop	Harvested areas (ha)			Average yield (tons/ha)			Production (tons)		
	2020	2021	Change 2021/2020	2020	2021	Change 2021/2020	2020	2021	Change 2021/2020
Lavender	18,949	18,242	-3.7%	3.23	4.47	38.5%	61,157	81,523	33.3%
Oil-bearing rose	4,807	4,161	-13.4%	3.04	2.89	-4.6%	14,587	11,954	-18.1%
Lemon balm	658	665	1.1%	2.51	3.71	47.7%	1,653	2,468	49.3%
Coriander	21,589	23,976	11.1%	0.95	1.33	39.7%	20,579	31,924	55.1%
Fennel	2,775	1,537	-44.6%	0.56	0.35	-38.1%	1,550	532	-65.7%

Source: MA, Agrostistics Department

The planted areas with oil-bearing rose in 2021 amounted to 5,269 ha, of which 4,161 ha were harvested - 13.4% less compared to 2020. With a 4.6% lower average yield, the amount of rose petals produced decreased by 18.1% on annual basis, reaching 11,954 tons.

The quantity of harvested lavender petals increased by 33.3% compared to 2020, reaching 81,523 tons. This is as a result of an increase in the average yield by 38.5%, while the harvested areas shrank by 3.7%.

In 2021, the coriander production reached 31,924 tons - 55.1% above the previous year's level. There was an increase in both the harvested areas (by 11.1%) and the average yield (by 39.7%).

With a significantly higher average yield (by 47.7%) and a slight increase in the harvested areas, lemon balm production increased by 49.3% on annual basis, reaching 2,468 tons.

The harvested production of fennel in 2021 amounted to 532 tons - 65.7% less than the previous year, with a decrease both in the harvested areas and the average yield.

### 2.2.7. Fruit

The total planted areas with seed, stone, shell and berry plantations in agricultural holdings in 2021 is 65,497 ha, which is 1% above the level of the previous year. Of these, 45,086 ha were harvested - by 8.9% more on an annual basis. Due to climate and other reasons, about 11% of the productive areas with orchard trees were not harvested. With 23.9% cherries have the largest share of harvested areas followed by plums and cherry plums - 20.6%, and walnuts - 17.9%. For almost all of the main orchard tree crops, an increase in the harvested areas compared to 2020 was observed, ranging from 1.2% (cherries) to 66.7% (apricots). A decrease is present only in peaches and nectarines (by 3.7%) and raspberries (by 10.8%).

The areas with young, fruit-bearing orchards in 2021 are 10.9 thousand ha. The largest relative share of the newly planted orchard trees was occupied by walnuts - 46%, followed by plums and cherry plums - 15.9%.

Around 51% of the newly planted crops in the business year 2020/2021 were stone species, 36% - nut species and 13% - pome fruits and other species. Among stone fruit varieties, the largest share is plums and cherry plums - 44%, followed by cherries - 31%.

In 2021, the country produced 226,118 thousand tons of fruit - 11.6% more on an annual basis. The largest relative share of the total fruit production was occupied by plums and cherry plums - 28.8%, followed by cherries - 23.3% and apples - 19.5%.

Compared to 2020, there was a significant increase in the production of apricots and almonds - more than twice and by 75.1%, respectively. The harvested quantities of peaches and nectarines, pears, plums and cherry plums, apples and cultivated rose hips are significantly larger - between 4.6% and 37.3%. At the same time, production of sour cherries, raspberries and hazelnuts shrank from 8.2% to 18.2%. The production of cherries and walnuts is close to that reported in the previous year.

The leading place in fruit production is occupied by the southeastern region with 26.5% and the south-central region with 23.3%. In the southeastern region, the focus is on the production of peaches (65.5%) and cherries (41%), and in the south-central region - on apples (40.4%) and sour cherries (29.8%). In the north-central region, 84.7% of the apricots and 25.2% of the plums and cherry-plums in the country are produced. In the production of raspberries, the Northeast region has the highest share - 32.8%.

**Table II.7. Fruit production in the 2020 and 2021 harvest years**

Orchard crops	Harvested areas (ha)			Average yield (kg/ha)			Production (tons)		
	2020	2021	Change 2021/2020	2020	2021	Change 2021/2020	2020	2021	Change 2021/2020
Apples	3,555	3,778	6.3%	10,654	11,654	9.4%	37,874	44,030	16.3%
Pears	503	545	8.3%	5,626	5,574	-0.9%	2,830	3,038	7.3%
Peaches and nectarines	2,775	2,673	-3.7%	7,474	8,117	8.6%	20,740	21,698	4.6%
Apricots	1,838	3,064	66.7%	5,177	6,756	30.5%	9,516	20,701	117.5%
Plums and cherry plums	8,573	9,275	8.2%	7,002	7,021	0.3%	60,024	65,123	8.5%
Cherries	10,631	10,754	1.2%	4,922	4,893	-0.6%	52,326	52,615	0.6%
Sour cherries	1,101	1,183	7.4%	4,368	3,731	-14.6%	4,809	4,414	-8.2%
Walnuts	7,097	8,066	13.7%	669	587	-12.3%	4,750	4,731	-0.4%
Almonds	928	1,284	38.4%	510	645	26.5%	473	828	75.1%
Hazelnuts	1,337	1,561	16.8%	633	443	-30.0%	846	692	-18.2%
Raspberries	1,829	1,632	-10.8%	3,372	3,409	1.1%	6,167	5,563	-9.8%
Cultivated rose hips	699	780	11.6%	1,582	1,947	23.1%	1,106	1,519	37.3%
Other orchard tree varieties	519	491	-5.4%	-	-	-	1,118	1,166	4.3%
<b>Total:</b>	<b>41,385</b>	<b>45,086</b>	<b>8.9%</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>202,579</b>	<b>226,118</b>	<b>11.6%</b>

Source: MA, Agrostistics Department

In 2021, a serious increase in the average yields of cultivated rose hips, apricots, and almonds is reported - between 23.1% and 30.5% compared to the previous year. The average yields of plums and cherry plums, raspberries, peaches and nectarines, and apples increased less - by between 0.3% and 9.4%, while those of cherries, pears, walnuts, sour cherries and hazelnuts decreased from 0.6% to 30% (most significant for hazelnuts).

98% of the fruits produced during the year were sold. The largest share is the production intended for direct sales and in the commercial network - 51%.

## 2.2.8. Vegetables

In 2021, the main areas used for vegetable production in the agricultural holdings were 37,072 ha, which was 1.6% more than the previous year. The open areas planted with vegetables are 35,965 ha, of which 35,094 ha have been harvested. Greenhouse areas increased by 23.3% on an annual basis, up to 1,107 ha.

The harvested open vegetable areas during the year increased by 4.1% compared to 2020, and by crop groups, there was an increase in fresh leguminous crops (by 2.9%), fruit vegetables (by 6%), leafy or stem vegetables (by 7.7%), potatoes (by 9.6%) and strawberries (by 14.5%), and a decrease in Brassica vegetables and tuberous and bulbous vegetables by 12% and 13.6%, respectively.

With the largest relative share of the total harvested open areas with vegetables in 2021 are the areas with potatoes - 31.1%, followed by those with watermelons - 13.5%, melons - 8.4%, pepper - 8.2%, tomatoes - 6.9%, etc.

By types of vegetable crops, in 2021 a significant annual growth of harvested areas with summer savory (more than twice), garden beans - green (by 91.4%), melons (by 31.7%), sweet corn (by 14%), pepper (by 10.4%), etc. On the other hand, the harvested areas with cauliflower, pumpkins for seeds, spinach and courgettes decreased by between 40.5% and 73.3%, and those by onions, tomatoes and cucumbers by 6.1% - 11.8%.

**Table II.8. Main areas used for vegetable production - harvests in 2020 and 2021, ha**

Main areas	2020 harvest	2021 harvest	Change 2021/2020
Open areas with fresh vegetables, strawberries, potatoes, and legumes	35,605	35,965	1.0%
Total greenhouse area	898	1,107	23.3%
<b>Total area</b>	<b>36,503</b>	<b>37,072</b>	<b>1.6%</b>

Source: MA, Agrostistics Department

The total production of vegetables - the harvest in 2021 amounted to 690.1 thousand tons - 5.9% above the level of the previous year. The production from open areas increased by 4% on an annual basis, up to 581.6 thousand tons, and the greenhouse production - by 17.2%, up to 108.5 thousand tons.

In 2021, the largest production is potatoes - 195.6 thousand tons, tomatoes - 116.4 thousand tons, watermelons - 107.3 thousand tons, pepper - 61.6 thousand tons and cucumbers - 51.4 thousand tons.

**Table II.9. Areas, production, and average yields of vegetables - harvests in 2020 and 2021**

Crops	Open harvested areas (ha)		Production (tons)							Average yield from open areas (kg/ha)	
			From open areas		Greenhouse production		TOTAL				
	2020	2021	2020	2021	2020	2021	2020	2021	Change 2021/2020	2020	2021
Fruit and vegetables, including:	15,751	16,693	276,317	290,690	92,187	107,826	368,504	398,516	8.1%	-	-
Tomatoes	2,586	2,427	69,515	57,398	46,275	59,020	115,790	116,418	0.5%	26,881	23,650
Cucumbers	490	432	8,352	7,381	41,850	44,033	50,202	51,414	2.4%	17,045	17,086
Gherkins	206	156	3,386	2,143	48	125	3,434	2,268	-34.0%	16,437	13,737
Eggplants	369	321	9,921	7,733	c	71	c	7,804	-	26,886	24,090
Zucchini	220	131	4,315	2,094	c	c	c	c	-	19,614	15,985

Crops	Open harvested areas (ha)		Production (tons)							Average yield from open areas (kg/ha)	
			From open areas		Greenhouse production		TOTAL				
	2020	2021	2020	2021	2020	2021	2020	2021	Change 2021/2020	2020	2021
Pumpkins and gourds	1,516	1,623	13,751	14,776	-	c	13,751	c	-	9,071	9,104
Seed pumpkins	190	66	183	47	-	-	183	47	-74.3%	963	712
Melons	2,242	2,952	25,453	29,173	c	30	c	29,203	-	11,353	9,882
Water melons	4,421	4,747	87,251	107,342	c	-	c	107,342	-	19,736	22,613
Pepper (incl. hot pepper)	2,597	2,866	47,319	57,052	3,673	4,524	50,992	61,576	20.8%	18,221	19,906
Sweet corn	414	472	4,895	3,445	-	-	4,895	3,445	-29.6%	11,824	7,299
Okra	500	500	1,976	2,106	-	-	1,976	2,106	6.6%	3,952	4,212
Fresh legumes, including:	1,092	1,124	5,258	5,600	1	c	5,259	c	-	-	-
Garden peas - green	870	699	3,444	2,723	-	-	3,444	2,723	-20.9%	3,959	3,896
Garden beans - green	222	425	1,814	2,877	1	c	1,815	c	-	8,171	6,769
Vegetables of the Brassica genus, incl.	1,677	1,475	34,242	32,705	6	c	34,248	c	-	-	-
Cabbage	1,460	1,394	32,060	31,818	6	c	32,066	c	-	21,959	22,825
Cauliflower	135	36	1,580	532	-	-	1,580	532	-66.3%	11,704	14,778
Other Brassica vegetables (broccoli, Brussels sprouts, and collards)	82	45	602	355	-	-	602	355	-41.0%	-	7,889
Leafy or stem vegetables (excluding vegetables of the Brassica genus)	795	856	6,387	6,544	315	487	6,702	7,022	4.8%	-	-
Garlic-green	-	200	-	626	-	15	-	641	-	-	3,130
Salad greens and lettuce	129	135	2,201	2,333	227	301	2,428	2,634	8.5%	17,062	17,281
Spinach	144	63	844	339	65	69	909	408	-55.1%	5,861	5,381
Leek	113	122	1,389	1,318	-	-	1,389	1,318	-5.1%	12,292	10,803
Summer savory	51	106	76	255	-	-	76	255	236%	1,490	2,406
Other leafy or stem vegetables (dill, parsley, green onion, asparagus, etc.)	358	230	1,877	1,673	23	93	1,900	1,766	-7.1%	-	7,274

Crops	Open harvested areas (ha)		Production (tons)							Average yield from open areas (kg/ha)	
			From open areas		Greenhouse production		TOTAL				
	2020	2021	2020	2021	2020	2021	2020	2021	Change 2021/2020	2020	2021
Tuber and onion vegetables, including:	3,712	3,207	40,319	44,286	1	45	40,320	44,331	9.9%	-	-
Onions - ripe	2,620	2,351	28,443	29,859	-	15	28,443	29,874	5.0%	10,856	12,701
Carrots	591	459	8,702	12,056	-	-	8,702	12,056	38.5%	14,724	26,266
Garlic - ripe	369	272	1,600	1,031	-	-	1,600	1,031	-35.6%	4,336	3,790
Other tuber and onion vegetables (beetroot, seed onion, turnips, radishes, etc.)	132	125	1,574	1,340	1	30	1,575	1,370	-13.0%	-	10,720
Potatoes	9,946	10,902	192,331	195,625	-	14	192,331	195,639	1.7%	19,338	17,944
Strawberries	731	837	4,176	6,138	96	142	4,272	6,280	47.0%	5,713	7,333
Total vegetables	33,704	35,094	559,030	581,588	92,606	108,516	651,636	690,104	5.9%	-	-

Source: MA, Agrostistics Department

c - confidential data (there were less than 3 farms in the category under consideration)

**Table II.10. Total production of basic vegetables from harvests 2020 and 2021, tons**

Types of vegetables	2020 harvest	Harvest 2021	Change 2021/2020
Tomatoes	115,790	116,418	0.5%
Pepper (sweet and hot)	50,992	61,576	20.8%
Cucumbers and gherkins	53,636	53,682	0.1%
Potatoes	192,331	195,639	1.7%
Cabbage*	32,060	31,818	-0.8%
Onions ripe	28,443	29,874	5.0%
Strawberries	4,272	6,280	47.0%

Source: MA, Agrostistics Department

\* Data is from open areas only

In almost all groups of vegetables there was an increase in the harvested quantities produced from open areas compared to the previous year, reaching 9.8% for tuber and onion vegetables. Only in relation to the group of vegetables of the Brassica genus there was a decrease in production, by 4.5%.

Among the more important crops, a significant increase in the production obtained from open areas was reported for strawberries (by 47%), carrots (by 38.5%), watermelons (by 23%), pepper (by 20.6%), melons (by 14.6%) and onions (by 5%), and a decrease – in eggplants (by 22.1%), tomatoes (by 17.4%) and cucumbers (by 11.6%). Potato production grew by 1.7% on an annual basis.

In 2021, for the main vegetable crops, there were divergent changes in the average yields per hectare compared to 2020. The average yields of cabbage, pepper, watermelons, onions, strawberries and carrots were significantly higher on an annual basis - by between 3, 9% and 78.4%, and lower - those from potatoes, eggplants, tomatoes and melons - in the range of 7.2% - 13%. The average yields of cucumbers and pumpkins are close to those reported in the previous year.



The **greenhouse production** in the country was determined by several major vegetable crops - tomatoes, cucumbers, salads and lettuce, peppers and gherkins. Its development is determined on the basis of market demand. Part of the production is intended for export.

The total production of greenhouse vegetables in 2021 amounts to 108.5 thousand tons - with 17.2% more on an annual basis, taking into account growth in all main vegetable crops.

**Table II.11. Greenhouse production of basic vegetables from harvests in 2020 and 2021, tons**

Types of vegetables	2020 harvest	Harvest 2021	Change 2021/2020
Tomatoes	46,275	59,020	27.5%
Pepper	3,673	4,524	23.2%
Cucumbers	41,850	44,033	5.2%
Gherkins	48	125	160.4%
Other vegetables (excluding mushrooms)	760	814	7.1%
Total	92,606	108,516	17.2%

Source: MA, Agrostatistics Department

The trend for modernization of existing greenhouses with the application of new and more modern technologies for quality vegetables from greenhouse production continues.

There is a diversification of the types of vegetable crops grown in greenhouses. In addition to the main greenhouse crops, potatoes, green onions, green garlic, zucchini, melons, strawberries, raspberries and others were also produced.

#### 2.2.9. Forecast data for the production of basic cereals and oilseeds from the harvest in 2022

The forecast data available at the end of September 2022 show a decrease in the production of all major cereals and oilseeds compared to the previous year. This is mainly related to a decrease in the average yields as a result of the less favorable climatic conditions during the economic year and in the case of corn and barley - with less harvested areas.

At this stage, the production of sunflower, barley and wheat is expected to shrink by 8.5% - 11% on an annual basis. A more serious decrease is expected for corn for grain and rape - by 31.9% and 20.5%, respectively.

**Table II.12. Forecast for the production of major cereals and oilseeds in 2022**

Crop	Indicator / year	2021	2022 (forecast)	Change 2022/2021
Wheat	Areas (thousand ha)	1,206	1,208	0.2%
	Average yield (tons/ha)	5.90	5.30	-10.2%
	Production (thousand tons)	7,119	6,343	-10.9%
Corn for grain	Areas (thousand ha)	573	526	-8.2%
	Average yield (tons/ha)	5.89	4.40	-25.3%
	Production (thousand tons)	3,376	2,300	-31.9%
Barley	Areas (thousand ha)	126	124	-1.6%
	Average yield (tons/ha)	5.41	5.00	-7.6%
	Production (thousand tons)	683	617	-9.7%
Sunflower	Areas (thousand ha)	836	913	9.2%

Crop	Indicator / year	2021	2022 (forecast)	Change 2022/2021
Rapeseed	Average yield (tons/ha)	2.38	2.20	-7.6%
	Production (thousand tons)	1,989	2,055	3.3%
	Areas (thousand ha)	131	131	0.0%
Rapeseed	Average yield (tons/ha)	2.85	2.30	-19.3%
	Production (thousand tons)	372	296	-20.4%

Source: MA, Agrostistics Department (forecast data for 2022).

### 2.3. Livestock Breeding Production Results

The state policy in the field of livestock breeding is aimed at creating conditions for sustainable development of the sector and protection of the interests of farmers.

Livestock, as a priority sector, continues to be supported through various financial instruments with European budget funds under the two pillars of the CAP (for direct payments and market measures and for rural development), as well as with national funds.

In connection to the COVID-19 pandemic, new schemes and measures have been developed in 2021 to support the Livestock sector, which, like all others, was seriously affected by the imposed restrictions.

During the year, an emergency aid scheme was implemented to help livestock farmers who are suffering losses due to the drought and the negative impact of the pandemic. The aid covers farmers who have received support under the coupled animal support schemes and under the Transitional National Aid for ewes and/or female goats tied to production (TMSA3), who have applied for Campaign 2020.

Under the scheme "Aid to support the liquidity of farmers to overcome the negative economic impact of COVID-19", farmers raising large and small ruminants and bee colonies who are registered farmers according to the Ordinance No. 3 of 1999 are entitled to support. The support is aimed at ensuring the continuity of their economic activity, with the aim of preserving the vitality of the industry.

A financial resource has been provided under de minimis aid, according to Regulation (EU) No. 1407/2013, to farmers breeding cows and/or heifers and/or buffaloes, ewes and/or does.

Minimum de minimis aid has also been granted to slaughterhouses for organizing the purchase of small ruminant animals to compensate for part of the costs related to transport, logistics and subsequent sale in the commercial network of the meat harvested by them.

In 2021, the classification of carcasses of cattle, pigs and sheep (lambs) according to the EU Scales continued to be applied. The classification aims to improve market transparency and increase the competitiveness of meat products on the European market, as well as to provide feedback to farmers on the results of their livestock production methods.

Towards the end of 2021, there was an overall decrease in the number of farms raising farm animals compared to the previous year. The most significant decrease on an annual basis is recorded in farms with chickens for fattening and with laying hens - by 50.9% and 66.3%, respectively. The overall number of farms with pigs also decreased significantly - by 28.6%, followed by those with goats - by 10.7% and cattle - by 9.9%, and the number of farms with sheep decreased the least - by 2%. The exception is buffalo farms, which remain unchanged.

The total number of large ruminants, pigs and poultry increased compared to 2020, respectively: cattle - by 3.7%, buffaloes - by 7.5%, pigs - by 17.3% and poultry - by 1.5%. At the same time, the number of small ruminants decreased, more significantly for goats - by 15.2%, and more moderately for sheep - by 8.3%. Bee colonies are 2.9% less on an annual basis.

The trend of increasing large and small meat-producing ruminants is maintained. By the end of 2021, in the country there were 19.1% more beef cows than a year earlier and 17.2% more ewes bred for meat. The

applied schemes for coupled support in livestock breeding (including schemes for beef cows and animals under selective control) have a favorable effect on this growth.

**Table II.13. Number of animals in 2020 and 2021**

Type of animals	2020	2021	Change 2021/2020
Cattle - total, including:	568,726	589,512	3.7%
cows - total, including:	367,529	381,419	3.8%
- milk cows	227,795	214,936	-5.6%
- beef cows	139,734	166,483	19.1%
buffaloes - total, including:	20,179	21,686	7.5%
female buffaloes	14,147	15,407	8.9%
sheep - total, including:	1,307,771	1,199,547	-8.3%
ewes - total, including:	1,105,776	1,013,239	-8.4%
- milk sheep - ewes	975,531	860,559	-11.8%
- meat sheep - ewes	130,245	152,680	17.2%
Goats - total, including:	253,401	215,002	-15.2%
Does	207,714	179,836	-13.4%
Pigs - total, including:	592,097	694,663	17.3%
total breeding sows over 50 kg	65,769	65,750	0.0%
Poultry - total, thousand, including:	13,964	14,168	1.5%
hens and pre-laying hens	7,062	6,659	-5.7%
chicken for meat	5,349	5,517	3.1%
waterfowl	1,368	1,893	38.4%
other poultry	185	99	-46.5%
Bee colonies	863,283	837,955	-2.9%

**Source:** MA, Agrostatistics Department

**Note:** the data on animals of the genus LR (large ruminants), SR (small ruminants) and pigs are as of 1 November, for poultry - as of 31 December, and for bee colonies - as of 1 October.

In 2021, the average number of large ruminant and pig holdings increased compared to the previous year, while that of small ruminant holdings decreased. The most significant increase in the average number of animals kept on one holding was recorded for pigs in total - by 64.3%, up to 463.1 animals and sows - by 55.7%, up to 181 animals. The annual increase of the average number of cattle was by 15%, of cows - by 12.9%, and of buffaloes - by 6.9%. The average number of sheep and goats in one farm was 6.4% and 5% less than a year earlier, and the number of ewes and she-goats - by 5.5% and 3%.

**Table II.14. Milk production for the period 01.11.2020 - 31.10.2021 by planning regions, thousand liters**

Regions	Total milk	Including:			
		Cow milk	Buffalo milk	Sheep milk	Goat milk
Northwestern	137,419	113,431	5,816	12,052	6,120
North-central	152,671	139,159	1,146	5,941	6,425
Northeastern	146,875	133,586	803	8,803	3,683
Southeastern	169,830	150,852	3,062	12,115	3,801
Southwestern	80,919	60,657	1,951	12,873	5,438
South-central	237,264	213,751	3,291	16,203	4,019
<b>Total for the country</b>	<b>924,978</b>	<b>811,436</b>	<b>16,069</b>	<b>67,987</b>	<b>29,486</b>
<b>Change 2021/2020</b>	<b>- 5,2%</b>	<b>- 5,2%</b>	<b>4.1%</b>	<b>-8.0%</b>	<b>-3.0%</b>

Source: MA, Agrostatistics Department

The total production of raw milk in the country in 2021 is 924,978 thousand liters - 5.2% below the level of the previous year, mainly due to the reduced number of milk animals. An increase was observed only in the buffalo milk produced - by 4.1%, as a result of the larger number of buffaloes during the year.

Traditionally, the largest share in the total production of raw milk belongs to the cow's milk - 87.7%. Sheep milk accounts for 7.4%, goat's for 3.2% and buffalo's for 1.7%.

In 2021, the south-central region remains the leader in milk production, representing 25.7% of the total volume, followed by the southeastern region with 18.4%. The lowest production was reported in the Southwestern region - 8.7%.

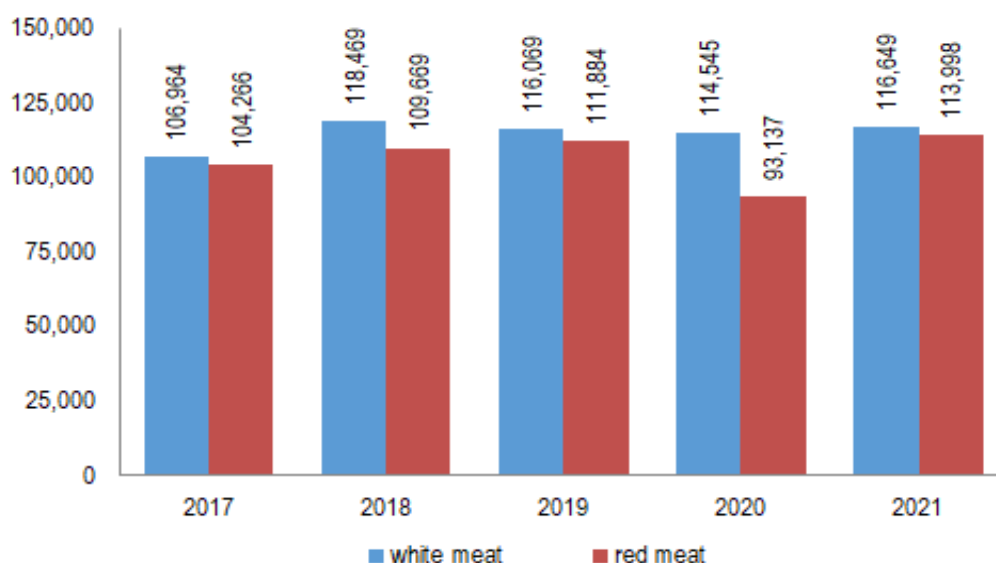
**Table II.15. Animal production in 2020 - 2021**

Product	2020	2021	Change 2021/2020
1. Milk - total (thousand liters), including:	975,810	924,978	-5.2%
Cow milk	856,081	811,436	-5.2%
Buffalo milk	15,435	16,069	4.1%
Sheep milk	73,897	67,987	-8.0%
Goat milk	30,397	29,486	-3.0%
2. Meat - total carcass weight (tons), including:	207,682	230,647	11.1%
Red meat	93,137	113,998	22.4%
White meat	114,545	116,649	1.8%
3. Eggs (thousand pieces)	1,382,372	1,325,578	-4.1%
4. Bee honey (tons)	9,066	11,638	28.4%

Source: MA, Agrostatistics Department

The total meat production in the country in 2021 increased by 11.1% on an annual basis, to 230,647 tons of carcass meat. The production of red meat is 113,998 tons - 22.4% above the level of 2020, with an increase in production both in slaughterhouses - by 24.6%, and in farms - by 14.5%. The produced white meat amounted to a total of 116,649 tons - 1.8% more than the previous year, due to an increase in industrial production by 2.6%, whereas the production on farms shrank in half.

**Figure II.3. Meat production in the period 2017 - 2021, tons**



Source: MA, Agrostatistics Department

In 2021, the honey produced in the country increased by 28.4% on an annual basis, up to 11,638 tons, with a 31.6% higher average yield per bee family in the amount of 17.5 kg.

The production of poultry eggs decreased by 4.1% compared to the previous year, to 1,325,578 thousand.

### **Expected data for 2022**

In 2022, the total number of livestock by individual species and categories is expected to be around or slightly above the levels of the previous year.

In the period January - June 2022, a total of 103,036 tons of meat were produced in the country's slaughterhouses - by 10.5% more on an annual basis, including: 45,146 tons of red meat and 57,890 tons of white meat.

Compared to the same period in 2021, the industrial production of red meat increased by 13.3%. This is mainly related to the reported growth of 12.3% in pork (up to 40,197 tons), which accounts for about 89% of total red meat production.

The total production of white meat in slaughterhouses increased by 8.4% on an annual basis. It mainly includes meat from broiler chickens of the hen species - 42,752 tons, 5.3% more compared to the same period in 2021. The industrial production of duck meat increased by 27.3%, up to 7,789 tons.

Given the data for the first half of the year, the production of red and white meat for the entire 2022 can be expected to be above the level of the previous year.

In the first six months of 2022, milk processing enterprises processed nearly 352 million liters of milk in total, including 329 million cow's milk, which is respectively 6.6% and 6.5% less compared to same period of 2021.

The total yield of dairy raw material for the entire 2022 is predicted to be close to that reported for the previous year.

Egg production is expected to increase by about 2% on an annual basis, and bee honey production - by nearly 5%.

### **2.3.1. Cattle breeding and buffalo breeding**

The process of specialization of production in cattle breeding continues, which is characterized by the transition from dairy to meat production.

As of 01.11.2021, a total of 589,512 cattle heads were bred in the country - 3.7% more than a year earlier. The total number of cows increased by 3.8% on an annual basis (up to 381,419) due to a 19.1% increase in beef cows, while dairy cows decreased by 5.6%. Thus, the share of cows for meat in the total number of cows reached 43.6%, compared to 38% in 2020.

**Table II.16. Distribution of cattle by regions in 2020 and 2021**

Regions	01/11/2020				01/11/2021			
	Cattle		Cows		Cattle		Cows	
	thousand heads	share	thousand heads	share	thousand heads	share	thousand heads	share
Northwestern	62.7	11.0%	42.5	11.6%	59.9	10.2%	37.9	9.9%
North-central	64.8	11.4%	36.6	10.0%	68.7	11.7%	40.2	10.5%
Northeastern	66.3	11.7%	38.1	10.4%	67.3	11.4%	36.4	9.5%
Southeastern	110.3	19.4%	71.3	19.4%	114.3	19.4%	73.1	19.2%
Southwestern	85.3	15.0%	56.7	15.4%	93.3	15.8%	64.7	17.0%
South-central	179.3	31.5%	122.3	33.3%	186	31.5%	129.1	33.8%
<b>Total for the country</b>	<b>568.7</b>	<b>100%</b>	<b>367.5</b>	<b>100%</b>	<b>589.5</b>	<b>100%</b>	<b>381.4</b>	<b>100%</b>

Source: MA, Agrostistics Department

Cattle breeding is concentrated in southern Bulgaria, where the biggest number of cattle in the country is reared in 2021. Approximately one third of the total number of cows in the country are reared in the south-central region, incl. 27.7% of milk cows and 41.7% of beef cows.

By the end of 2021, the number of dairy farms was reduced to 15,975, or 9.3% less than the previous year. With the exception of farms raising 3 - 9 animals, the number of which increased by 6.5% on an annual basis, all other categories of farms decreased. The largest decrease was observed in farms with 50 - 99 dairy cows - by 15.6%, followed by the smallest with 1 - 2 animals - by 12.8%. Farms with 100 or more animals, where nearly 36% of all dairy cows in the country are raised, are 7% less compared to a year earlier. The slightest decrease was reported for farms with 20 - 49 dairy cows - by 2.1%.

**Table II.17. Distribution of dairy cows by number of farm animals on a farm as of 01.11.2021**

Number of animals on a farm	Farms		Milk cows	
	heads	Change 2021/2020	thousand heads	Change 2021/2020
1 - 2	10,229	-12.8%	13.0	-9.7%
3 - 9	1,979	6.5%	11.3	29.9%
10 -19	992	-6.1%	13.5	-6.9%
20 -49	1,727	-2.1%	52.1	-7.6%
50 - 99	692	-15.6%	47.3	-12.9%
100 and more	356	-7.0%	77.7	-2.3%
<b>Total</b>	<b>15,975</b>	<b>-9.3%</b>	<b>214.9</b>	<b>-5.7%</b>

Source: MA, Agrostistics Department

Cow's milk produced in 2021 was 811,436 thousand liters - 5.2% less compared to 2020, due to the decrease in the number of dairy cows.

Traditionally, the south-central region accounted for the largest share of total cow mil production - 26.3%, followed by the southeastern region with 18.6%. The share of cow milk produced in the Southwestern region is the smallest - 7.5%.

By the end of 2021, there were 460 farms rearing female buffaloes - 5.5% less on an annual basis, while the number of female buffaloes in them increased by 8.9%. There was a significant increase in the number of farms with 10 - 19 female buffaloes - by 83.3%, as well as in the number of animals raised in them - by 72%. Large farms with 100 or more animals also grew significantly - by 25%, and the female buffaloes in them - by 20.6%. A little over 44% of the female buffaloes in the country are concentrated in farms with 20 - 99 animals, the number of which remains close to the level of the previous year.

Leaders in buffalo breeding in 2021 remain the northwestern, south-central and southeastern regions, where more than 75% of the livestock are concentrated.

**Table II.18. Distribution of buffaloes by regions in 2020 and 2021**

Regions	01/11/2020				01/11/2021			
	Buffaloes total		Female buffaloes		Buffaloes total		Female buffaloes	
	thousand heads	share	thousand heads	share	thousand heads	share	thousand heads	share
Northwestern	5.8	28.6%	4.5	32.0%	6.4	29.5%	4.6	29.6%
North-central	2.2	10.9%	1.2	8.7%	2.4	10.9%	1.2	8.0%
Northeastern	1.7	8.5%	1.0	7.1%	1.5	6.8%	0.8	5.4%
Southeastern	4.3	21.3%	3.1	21.5%	4.8	21.1%	3.8	24.6%
Southwestern	1.5	7.3%	1.0	7.3%	1.4	6.5%	0.9	5.9%
South-central	4.7	23.4%	3.3	23.4%	5.2	24.2%	4.1	26.6%
<b>Total for the country</b>	<b>20.2</b>	<b>100%</b>	<b>14.1</b>	<b>100%</b>	<b>21.7</b>	<b>100%</b>	<b>15.4</b>	<b>100%</b>

Source: MA, Agrostatistics Department

In 2021 the production of buffalo milk increased by 4.1% compared to the 2020, reaching 16,069 liters. The production of buffalo milk is the largest in the Northwestern region - with a share of 36.2% of the total production in the country. It is followed by the south-central and southeastern regions, with a share of 20.5% and 19.1%, respectively.

**Table II.19. Beef production in 2020 and 2021 (tons of carcass weight)**

Categories of animals	In slaughterhouses			In farms			Total production		
	2020	2021	Change 2021/2020	2020	2021	Change 2021/2020	2020	2021	Change 2021/2020
Calves and young cattle	657	616	-6.2%	6,858	7,390	7.8%	7,515	8,006	6.5%
Other cattle	5,580	6,519	16.8%	3,591	3,671	2.2%	9,171	10,190	11.1%
<b>Total for the country</b>	<b>6,237</b>	<b>7,135</b>	<b>14.4%</b>	<b>10,449</b>	<b>11,061</b>	<b>5.9%</b>	<b>16,686</b>	<b>18,196</b>	<b>9.0%</b>

Source: MA, Agrostatistics Department

The total production of beef in the country in 2021 amounted to 18,196 tons, 9% more than the previous year. A more substantial growth was reported in slaughterhouse production - by 14.4%, and a more moderate one in farms - by 5.9%. Beef accounts for about 16% of the total red meat produced during the year.

Within 2021, a total of 10,610 cattle over 8 months of age were classified on the Union classification scales, which is 5.7% less than in 2020. Slaughterhouses classifying cattle carcasses during the year there were five - two fewer than the previous year.

The highest was the share of category "D" cows - 72.6%, followed by cattle with category "A" - young bull (12.8%), "B" - bull (5.7%), "E" - heifer (6.9%), "Z" - an animal aged 8 to 12 months (2%), and there is no cattle classified as category "C" for the year. The main part of the classified beef was from dairy-purpose animals, whose carcasses have a low yield and poorly developed conformation. Therefore, the largest was the share of

classified carcasses of cattle with conformation class P (poor) - 43.2%, followed by O (fair) - 33.2%, class R (good) - 23.5% and U (very good) - 0.1%. When determining the classes by fat cover, the largest is the number of carcasses class 2 (slight) - 47.2%, class 3 (average) - 28.9%, class 1 (low) - 20.9%, class 4 (high) - 2.9% and class 5 (very high) - 0.1%.

### 2.3.2. Sheep and goat breeding

Appropriate natural and climatic conditions and long-standing traditions favor the development of sheep breeding in the country. It is widespread in the plains as well as in the mountainous and semi-mountainous areas, providing livelihood for a large part of the population in rural areas.

As of November 1, 2021, the total number of sheep in the country amounted to 1,199,547 - 8.3% below the level reported a year earlier. The total number of ewes decreased by 8.4% on annual basis, as a result of the decrease in ewes from the dairy sector by 11.8% (to 860,559), whereas those from the meat sector increased by 17.2% (to 152,680 heads).

Traditionally, sheep breeding is concentrated mainly in southern Bulgaria, and in 2021, the south-central region is leading, with the largest number of ewes raised.

By the end of 2021, the number of holdings raising sheep and ewes decreased by 2% and 3.1%, respectively, compared to the previous year. The average number of sheep on a farm decreased by 6.4% to 62.2, and that of ewes - by 5.5% to 53.6.

**Table II.20. Distribution of sheep by regions in 2020 and 2021 (thousand heads)**

Regions	Sheep in general			Including ewes		
	01/11/2020	01/11/2021	Share (2021)	01/11/2020	01/11/2021	Share (2021)
Northwestern	145.1	146.1	12.2%	124.6	123.3	12.2%
North-central	113.2	116.2	9.7%	95.2	95.3	9.4%
Northeastern	185.3	140.7	11.7%	152.5	116.2	11.5%
Southeastern	265.8	231.9	19.3%	227.8	199.9	19.7%
Southwestern	245.2	236.4	19.7%	200.2	194.6	19.2%
South-central	353.2	328.2	27.4%	305.5	283.9	28.0%
<b>Total for the country</b>	<b>1,307.8</b>	<b>1,199.5</b>	<b>100%</b>	<b>1,105.8</b>	<b>1,013.2</b>	<b>100%</b>

Source: MA, Agrostistics Department

The number of farms with inseminated sheep and one-year-old sheep decreased by 3.3% on an annual basis, and the number of animals in them - by 8.3%. An increase was observed in medium-sized holdings keeping 50 - 99 animals (by 22.9%) and 20 - 49 animals (by 3.5%), whereas the other categories of holdings decreased by between 1.6% and 17.8%, respectively, and the number of inseminated sheep and goats bred in them - from 3.1% to 16.6%.

By the end of 2021, the total number of goats, including mothers, decreased significantly on an annual basis - respectively by 15.2% (to 215,002 heads) and by 13.4% (to 179,836 heads). A serious decline was registered in the number of kids - by 34.9%, to 19,347. The number of young goats inseminated for the first time increased by 11.1%, reaching 9,505.

Total goat and doe farms are down nearly 11% from 2020, and the average number of animals on a farm is down 5%, to 23.4 total goats, and 3%, to 19.8 does average, respectively.

In 2021, the number of middle-sized farms with 20 - 49 or more pregnant goats increased by 11.3% on an annual basis, and the number of animals in them - by 17%. For the rest of the farms with inseminated goats, a decrease of between 9.6% and 31.1% was observed, and of the animals in them - between 11.3% and 29.8%. Over 51% of the inseminated goats in the country are kept on farms with 100 or more animals.



Approximately 42% of the goat herds in 2021 are bred in the southern regions of the country. The Southwestern region with a share of 24.6% of the total number of goats and 23.8% of mother goats remains the leading region.

**Table II.21. Distribution of goats by regions in 2020 and 2021 (thousand heads)**

Regions	Goats total			Including does		
	01/11/2020	01/11/2021	Share (2021)	01/11/2020	01/11/2021	Share (2021)
Northwestern	39.3	34.8	16.2%	34.9	29.7	16.5%
North-central	34.1	30.3	14.1%	26.3	24.3	13.5%
Northeastern	28.0	24.9	11.6%	22.7	19.8	11.0%
Southeastern	41.7	34.7	16.1%	35.8	30.4	16.9%
Southwestern	65.7	53	24.6%	48.5	42.7	23.8%
South-central	44.6	37.3	17.4%	39.5	32.9	18.3%
<b>Total for the country</b>	<b>253.4</b>	<b>215.0</b>	<b>100%</b>	<b>207.7</b>	<b>179.8</b>	<b>100%</b>

Source: MA, Agrostistics Department

In 2021, 97,473 liters of milk from small ruminants were produced in Bulgaria, including: 67,987 thousand liters - sheep milk and 29,486 thousand liters - goat milk. Compared to the previous year, the yield of the two types of milk decreased by 8% and 3%, respectively. The relative share of sheep milk in the total volume of raw milk produced during the year was 7.4%, and the one of goat milk - 3.2%.

The meat produced from small ruminants in 2021 amounted to 12,428 tons (10.9% of total red meat production) - 26.6% more on an annual basis, of which 1,851 tons in slaughterhouses and 10,577 tons - on farms. The production of sheep meat increased by 22.4% compared to 2020, to 10,509 tons, and goat meat - by 55.6%, to 1,919 tons.

In 2021, the classification of light and heavy carcasses of sheep (lambs) is applied in two slaughterhouses. A total of 6,314 light carcasses of sheep (lambs) were classified, which was 52% less than in 2020. All classified sheep were light carcasses (up to 13 kg), and about 86.7% were classified as first quality. The share of light carcasses weighing from 7.1 kg to 10 kg - category B - 45.9%, was the largest. They are followed by those weighing 10.1 kg to 13 kg category C with 45.5%, and lambs weighing up to 7 kg, classified in category A, are 8.6%. In 2021, there are no classified carcasses of sheep aged up to 12 months and over 13 kg.

In 2022, the number of classified sheep is expected to remain the same.

### 2.3.3. Pig breeding

The pig sector in the country is well structured and specialized, which is a prerequisite for sustainable development. This allows the sector to overcome the effects of African swine fever in 2019 and the Covid-19 pandemic relatively quickly.

As of November 1, 2021, a total of 694,663 pigs were bred in the country, which is 17.3% more on an annual basis. The total number of breeding sows remained at the level of a year earlier - 65,750, while the number of primary sows increased by 16.8% (up to 54,353).

Compared to the previous year, the total number of farms breeding swine and primary sows shrank by 28.6% and 25% respectively.

About 66% of all pigs reared during the year were concentrated in two planning regions - the Southeastern (36.8%) and Northeastern (29.3%). The largest number of primary sows are also reared in these two areas, 34.5% and 26.4% respectively. The least number of pigs is bred in the Southwestern region - only 1.3% of the total for the country.

**Table II.22. Distribution of pigs by regions in 2020 and 2021 (thousand heads)**

Region	Pigs total			Primary sows		
	01/11/2020	01/11/2021	Share (2021)	01/11/2020	01/11/2021	Share (2021)
Northwestern	22.6	22.0	3.1%	2.0	2.1	3.9%
North-central	119.5	168.7	24.3%	12.0	11.7	21.5%
Northeastern	225.6	203.4	29.3%	10.8	14.3	26.4%
Southeastern	154.2	255.5	36.8%	9.8	18.8	34.5%
Southwestern	9.3	8.8	1.3%	2.3	2.0	3.6%
South-central	60.9	36.3	5.2%	9.6	5.5	10.1%
<b>Total for the country</b>	<b>592.1</b>	<b>694.7</b>	<b>100%</b>	<b>46.5</b>	<b>54.4</b>	<b>100%</b>

Source: MA, Agrostatistics Department

The total number of farms rearing female pigs for breeding (over 50 kg) at the end of 2021 decreased by 19.5% compared to the previous year, with a relative retention of the number of animals in them (-0.2%). The most significant decrease was recorded in small farms with 1-2 female pigs - by 44.2%, and in those with 50-199 animals - by 25.9%. The decrease in farms with 200 and more animals was more moderate - by 12.5%, while the number of breeding sows raised in them increased by 0.9%, up to 61.9 thousand (94% of all breeding sows reared in the country).

**Table II.23. Distribution of breeding sows over 50 kg according to the number of animals bred on a farm as of 01.11.2021**

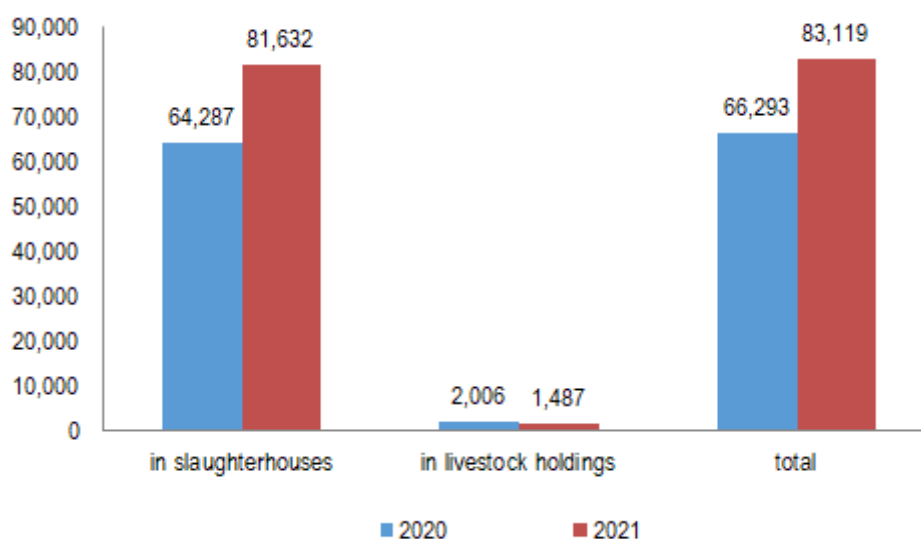
Number of animals on a farm	Farms		Breeding sows over 50 kg	
	Heads	Change 2021/2020	Thousand heads	Change 2021/2020
1-2	82	-44.2%	0.1	-38.5%
3-9	83	-4.6%	0.3	-14.3%
10-49	78	11.4%	1.3	-7.1%
50-199	20	-25.9%	2.0	-18.3%
200 and more	42	-12.5%	61.9	0.9%
<b>Total</b>	<b>305</b>	<b>-19.5%</b>	<b>65.7</b>	<b>-0.2%</b>

Source: MA, Agrostatistics Department

In 2021, the state aid scheme for implementation of the five-year voluntary commitments on swine welfare will continue to apply. Subsidies are granted annually and cover the additional costs or lost income related to these commitments.

The total production of pork in 2021 is 83,119 tons, which represents 73% of the total production of red meat in the country. The amount was 25.4% more on annual basis, as a result of a 27% increase in the production of the slaughterhouses to 81,632 tonnes, while that in livestock farms fell by 25.9% to 1,487 tons.

**Figure II.4. Pork production in 2020 and 2021, tons**



Source: MA, Agrostistics Department

In 2021, a total of 68,008 animals were classified under the (S) EUROP Pig Carcass Classification Scale, which is 68.7% more than in 2020. Only one slaughterhouse performed classification during the year.

Over 90% of the pigs classified in 2021 were of class E, with a lean meat content of 55% to 60% of the carcass weight, and 9% of the other classified pigs were of conformation class U - from 50% to 55% content of lean meat.

According to the regression equation applied in Bulgaria, only steamed pig carcasses were classified. During the year, nearly 69.7% of all pigs slaughtered and steam-processed were classified, and only 5.7% of all fattened pigs slaughtered in industrial conditions in the country.

For 2022, the number of classified pigs is expected to be slightly above the 2021 level due to the inclusion of new slaughterhouses, which perform classification.

**Table II.24. Classified pig carcasses by lean meat content**

Year	<b>S</b> 60% and more	<b>E</b> from 55 to 60%	<b>U</b> From 50 to 55%	<b>R</b> from 45 to 50%	<b>O</b> from 40 to 45%	<b>P</b> 40% and less	<b>Total (heads)</b>
2017	240	70,525	20,967	82	17	0	97,831
2018	318	70,422	18,888	134	0	0	89,762
2019	151	37,081	9,491	35	0	0	46,758
2020	161	33,079	7,050	31	0	0	40,321
2021	218	61,580	6 130	80	0	0	68,008

Source: MA, Animal Husbandry Directorate

#### 2.3.4. Horse breeding

According to expert estimates, in 2021 the number of equidae (including horses) in Bulgaria remained at about 116 thousand. Their main purpose is as draught power in agriculture.

Kabiyuk stud is the only state-owned enterprise operating in the sector, which breeds Bulgarian and foreign tribal horse breeds, such as Karakachan horse, East Bulgarian horse, Pleven horse, Thoroughbred English horse, Thoroughbred Arabian horse, Arabian Shagia and others. The remaining horses are bred in the private sector.

In order to preserve the number of horses, in 2014, for the first time, support was provided to horse breeding through the granting of de minimis state aid, which had a beneficial effect on the development of the sector. This contributed to the continuation of the existing centuries-old cultural and historical traditions and the consolidation of the country's position in this sector among other EU Member States.

The work related to the conservation and development of genetic resources in horse breeding continued in 2021.

### 2.3.5. Poultry farming

Poultry farming is one of the most intensive sectors in livestock breeding, characterized by widespread mechanization and automation of production processes, which ensures highly efficient industrial production.

As of 31.12.2021, the total number of birds in the country increased by 1.5% compared to the previous year, reaching 14,168 thousand, including: 6,659 thousand hens and laying hens, 5,517 thousand chickens for meat, 16 thousand turkeys, 1,889 thousand ducks, 4 thousand geese and 83 thousand other poultry.

The increase in the total number of birds is due to the growth in ducks, by 38.9%, and in broiler chickens, by 3.1%. On the other hand, the number of reared hens and young laying hens (by 5.7%), turkeys (by 23.8%) and geese (by 50%) decreased.

**Table II.25. Number of birds at the end of the year, thousand**

Type of poultry	2019	2020	2021	Change 2021/2020
Adult and young laying hens	7,107	7,062	6,659	-5.7%
Chickens for meat	6,635	5,349	5,517	3.1%
Turkeys	23	21	16	-23.8%
Ducks	1,573	1,360	1,889	38.9%
Geese	36	8	4	-50.0%
Other poultry (quail, ostriches and guinea fowl)	191	164	83	-49.4%
<b>Total</b>	<b>15,565</b>	<b>13,964</b>	<b>14,168</b>	<b>1.5%</b>

Source: MA, Agrostistics Department

By the end of 2021, about 58% of the poultry were raised in the north-central and northeastern regions of the country.

**Table II.26. Number of poultry by species and regions in 2021, thousand heads**

Region	Adult and young laying hens	Chickens for meat	Hens and chickens total	Turkeys	Ducks	Other poultry	Poultry, total	Change 2021/2020 Poultry, total
Northwestern	496	369	865	2	253	2	1,122	-22.0%
North-central	1,905	3,305	5,210	1	c	c	5,384	12.5%
Northeastern	1,593	1,110	2,703	1	c	c	2,818	-19.1%
Southeastern	1,210	732	1,942	4	510	20	2,476	41.6%
Southwestern	312	1	313	2	16	54	385	-15.9%
South-central	1,143	0	1,143	6	828	6	1,983	-3.4%
<b>Total for the country</b>	<b>6,659</b>	<b>5,517</b>	<b>12,176</b>	<b>16</b>	<b>1,889</b>	<b>87</b>	<b>14,168</b>	<b>1.5%</b>
<b>Change 2021/2020</b>	<b>-5.7%</b>	<b>3.1%</b>	<b>-1.9%</b>	<b>-23.8%</b>	<b>38.9%</b>	<b>-49.0%</b>	<b>1.5%</b>	

Source: MA, Agrostistics Department, confidential data

Farms, raising laying hens, decreased by 50.9% on an annual basis, with the largest drop observed in small poultry farms (with 1 to 99 birds) - by 51.1%, and in the poultry raised in them - by 51.9%. Also the number of farms rearing between 100 and 9,999 heads of poultry dropped significantly by 27.3%, and the laying hens in them - by 13.2%. The decline in the number of industrial poultry farms (100,000 and more birds) and the birds in them was more moderate, by 15% and 2.7%, respectively. An increase was registered only in the number of farms with 10,000 - 99,999 laying hens - by 6.7%, and the number of birds raised in them was 4.2% more.

The number of farms raising chickens for meat in 2021 marked a significant decrease compared to the previous year - by 66.3%, while the birds in them increased by 3.1%. The most significant is the decrease in the number of small farms (with 1 - 199 birds) - by 80.1% and the number of birds raised in them - by 81.8%. Approximately 98% of chickens for fattening were concentrated in industrial poultry farms with over 10,000 heads of poultry. The number of these farms reached 92, which is 2 more compared to 2020, and the birds raised in them increased by nearly 3%.

In 2021, the total production of eggs shrank by 4.1% on an annual basis to 1,325,578 thousand pieces. Of these, 1,305,215 thousand pieces (98.5%) are hen eggs, including: 237,741 thousand pieces - for breeding and 1,067,474 thousand pieces - for consumption. Eggs for consumption decreased by 6.6% compared to the previous year, and eggs for breeding hens increased by 9.1%.

By planning regions, the leader in egg production in 2021 was the Northeast region with a share of 29.9% of total egg production in the country, followed by the south-central and north-central regions, respectively with a share of 22.2% and 18.7%.

**Table II.27. Egg production in 2021 by planning regions, thousand pieces**

Region	Eggs from hens	Other eggs	Total eggs	Change, total eggs, 2021/2020
Northwestern	85,914	589	86,503	-26.8%
North-central	245,478	2,246	247,724	-24.9%
Northeastern	395,572	305	395,877	8.0%
Southeastern	227,759	6,062	233,821	8.0%
Southwestern	58,959	7,790	66,749	-6.8%
South-central	291,533	3,371	294,904	5.4%
<b>Total for the country</b>	<b>1,305,215</b>	<b>20,363</b>	<b>1,325,578</b>	<b>-4.1%</b>

Source: MA, Agrostistics Department

The total yield of poultry meat and by-products in the country in 2021 amounted to 116,649 tons, which is 1.8% more than the previous year. The industrial production grew by 2.7% on an annual basis, whereas farm production (making up less than 1% of the total volume of production) dropped by 52.7%. Over 83% of the meat produced in the country in 2021 was of the chicken species.

**Table II.28. Production of poultry meat and by-products in the period 2020 - 2021**

	Slaughtered poultry - thousand heads			Total meat and by-products - tons		
	2020	2021	Change 2021/2020	2020	2021	Change 2021/2020
In slaughterhouses	59,589	59,724	0.2%	112,809	115,828	2.7%
In farms	937	486	-48.1%	1,736	821	-52.7%
<b>Total</b>	<b>60,526</b>	<b>60,210</b>	<b>-0.5%</b>	<b>114,545</b>	<b>116,649</b>	<b>1.8%</b>

Source: MA, Agrostistics Department

The development of poultry farming in recent years has been contributed by the scheme of state aid for the implementation of voluntarily undertaken commitments for the humane treatment of birds (for fattening and for egg production) for a period of five years, the implementation of which continues in 2021.

### 2.3.6. Beekeeping

The development of beekeeping in Bulgaria is favored by long-standing traditions and the appropriate natural, climatic and ecological conditions in the country. Given the irreplaceable medicinal properties of bee honey and bee products, there is increased interest and demand from consumers, and the good quality parameters of Bulgarian honey make it largely export-oriented.

Beekeeping is an alternative employment for the population in underdeveloped rural areas, providing additional income.

**Table II.29. Number bee farms and bee colonies as of October 1**

Number of bee colonies on a farm	Number of farms			Number of bee colonies			Average number of bee colonies		
	2020	2021	Change 2021/2020	2020	2021	Change 2021/2020	2020	2021	Change 2021/2020
from 1 to 9	1,968	1,188	-39.6%	10,678	5,942	-44.4%	5.4	5.0	-7.4%
from 10 to 49	3,689	3,945	6.9%	91,884	92,751	0.9%	24.9	23.5	-5.6%
from 50 to 149	4,273	3,819	-10.6%	384,015	347,585	-9.5%	89.9	91.0	1.2%
150 and more	1,696	1,849	9.0%	376,706	391,677	4.0%	222.1	211.8	-4.6%
<b>Total</b>	<b>11,626</b>	<b>10,801</b>	<b>-7.1%</b>	<b>863,283</b>	<b>837,955</b>	<b>-2.9%</b>	<b>74.3</b>	<b>77.6</b>	<b>4.4%</b>

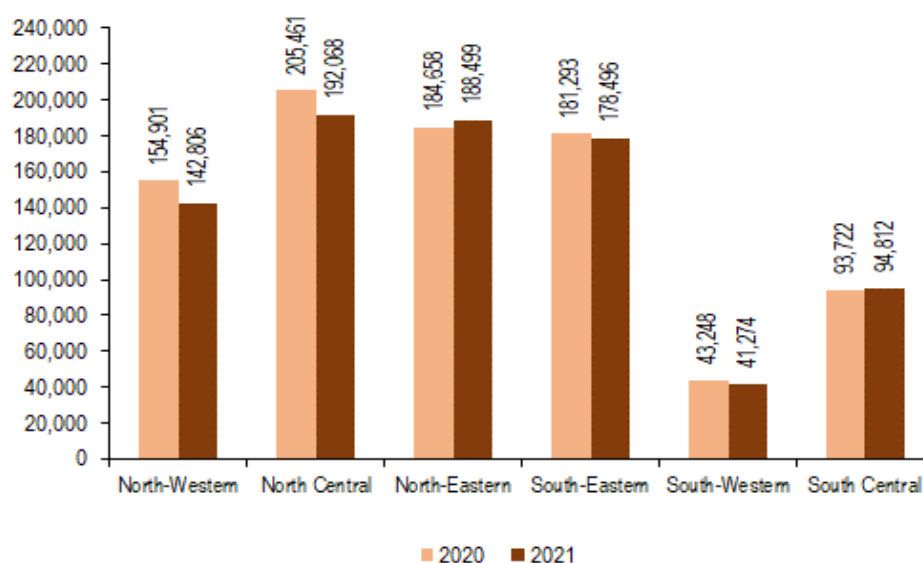
Source: MA, Agrostistics Department

The sector was positively affected by the already implemented for the fifth consecutive three-year National Beekeeping Program, which is being developed with the broad participation of branch beekeeping organizations.

As of October 1, 2021, there were 10,801 bee farms in the country, which raised 837,955 bee colonies - respectively 7.1% and 2.9% less on an annual basis. The average number of bee colonies in a holding increased by 4.4%, reaching 77.6 units (at 74.3 units in 2020).

Beekeeping is more widespread in Northern and Southeastern Bulgaria, where 84% of bee colonies were raised in 2021. The largest number of bee colonies were registered in the north-central region, followed by the northeastern, southeastern and northwestern regions.

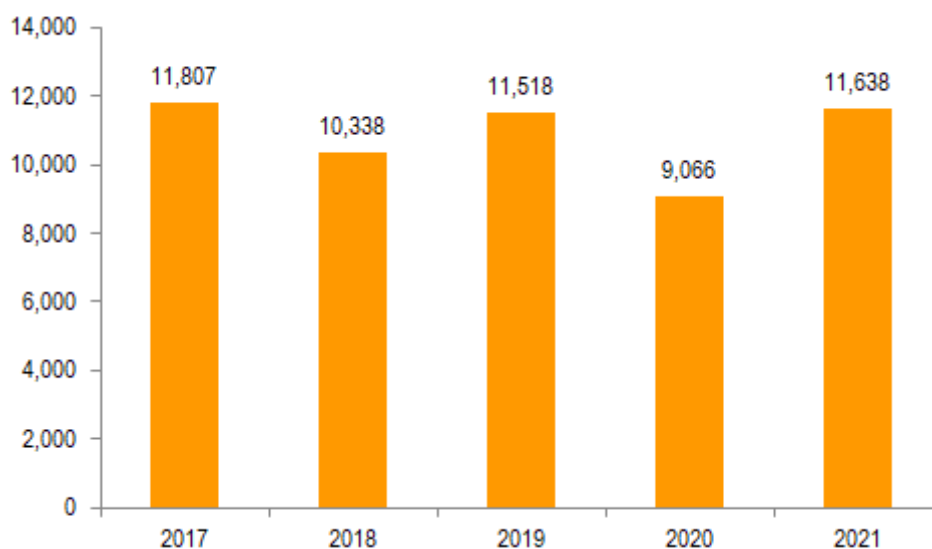
**Figure II.5. Number of bee colonies by regions in 2020 and 2021**



Source: MA, Agrostistics Department

In 2021, the number of bee colonies from which honey was extracted was 665,020 - 2.2% less than the previous year. With a 31.6% higher average bee colony yield of 17.5 kg, honey production increased by 28.4% on annual basis to 11,638 tons.

**Figure II.6. Production of honey in the period 2017 - 2021, tons**



*Source: MA, Agrostatistics Department*

The sales of honey and the average selling prices (excluding VAT) in 2021 were as follows:

- Direct sales to the end user - 1,952 tons - 8.19 BGN /kg;
- Direct sales to retailers - 277 tons - 8.45 BGN /kg;
- Sales to processing enterprises - 5,667 tons - 5.67 BGN/kg;
- Sales for industry - 209 tons - 5.53 BGN /kg;
- For own consumption and nutrition of bees - 1, 540 tons.

The total realized quantity of bee honey is 4.2% above the level of the previous year, with the biggest increase occurring in the sales of processing enterprises - by 15.8%. Direct sales to end users also increased - by 8.4%, and the amount of honey allocated for own consumption and bee feeding - by 10%. Sales to industry are significantly decreasing, by 67%, as well as direct sales to retailers, by 38.2%.

As a result of poisoning, diseases, famine and other causes, in 2021 a total of 81,440 bee colonies were destroyed - 84.5% more than in 2020, including: 17,031 - from poisoning, 8,443 - from disease, 12,500 - from hunger and 43,446 - from other causes.

Varroasis is a common disease in Europe, including Bulgaria. Its invasion significantly affects the yields, and the treatment measures against it affect the quality of honey. In 2021, 832,386 bee colonies were treated (99.3% of their total number), with an average price of BGN 5.46 per treatment.

The nutrition of bee colonies during the year includes: autumn - 576,988, winter - 519,106 and spring feeding - 582,396 bee colonies.

In 2021, the number of farms practicing in mobile beekeeping increased by 13.1% on an annual basis, to 294, and the number of bee colonies in them - by 27.2%, to 28,518. The value of transport costs and veterinary certificates during the year was BGN 11.14/bee colony, 17.3% higher than in 2020.

The fifth three-year National Beekeeping Program (NBP) 2020-2022 was implemented in 2021. A budget of BGN 8,073,092 (including 50% national co-financing) was provided for the financial year 2021. The funds utilized by the beekeepers amounted to BGN 6,547,349.05, or 81% of the total resource. The highest

percentage of budget absorption was achieved under measure A "Technical assistance for beekeepers and beekeepers associations" - 90%, followed by measure E "Measures to support the renewal of beehives in the European Union" - 83% and measure D "Measures to support laboratories for analysis of bee products" - 67%. With the financial assistance under the program, 2,133 pieces of different types of beekeeping equipment, necessary for the primary extraction and processing of honey and other bee products, such as bee pollen and wax, was purchased. 26,348 new beehives were also purchased to replace the depreciated ones or to increase the number of beehives on farmers' holdings. In 2021, the largest number of queen bees were purchased since the beginning of the program.

#### **2.3.7. Rabbit breeding**

In recent years, rabbit breeding in the country was rather a hobby. According to expert estimates, the total number of rabbits in 2021 was about 115 thousand.

Despite the good natural and climatic conditions and the presence of traditions in breeding, the development of rabbit breeding was poorly represented in the country due to a number of difficulties, such as:

- Poor professional training of rabbit farmers;
- Obsolete equipment;
- High production costs, which often exceed purchase prices;
- Lack of stable strategic export markets and partners;
- Strong dependence of rabbit meat exports on the situation on foreign markets;
- Lack of direct subsidies for rabbit farmers;
- Insufficiently developed scientific potential to provide the sector;
- Insufficient marketing and management on the Bulgarian market.

#### **2.4. State of organic production in Bulgaria in 2021**

Thanks to its positive impact on the environment and climate in terms of improving carbon sequestration and soil health, protecting biodiversity and animal welfare, as well as the additional ecosystem services that organic production provides, organic agriculture contributes to achieving the objectives of the European Green Deal, the EU Farm to Fork Strategy and the EU Biodiversity Strategy 2030.

Organic production is a sustainable management system that preserves elements of the natural landscape and uses energy and natural resources responsibly.

The current rate of increase in organic farming areas, combined with agro-ecological measures, leads to high and multi-aspect benefits both for achieving the goals of biodiversity protection and for mitigating the impact of climate change and improving the water and soil quality and soil biodiversity, due to the non-use of mineral fertilizers and chemical pesticides. The application of organic production practices has an indirect effect on improving or maintaining the good condition of natural habitats and the Natura 2000 species.

The development of organic production in Bulgaria is favored by the availability of high-quality land resources, climatic conditions, traditions in the agricultural sector. Defining the organic farming sector is the specific method of production that maintains ecological balances and produces production covering the principles of ecological cycles for the continuous movement in nature by converting substances such as water, minerals, nitrogen, oxygen and carbon into different forms between living beings, water, air and soil.

The information on the state of organic production in Bulgaria in 2021 is based on the data from the annual reports of a total of 15 controllers of organic production, approved by the Minister of Agriculture.

##### **2.4.1. Control System Operators**

The collection of information from the organic production control system is done within the calendar year.



At the end of 2021, the total number of biological operators registered with the Ministry of Agriculture was 4,913 - 931 less than a year earlier, of which 4,352 were agricultural producers, 286 processors of organic production and 275 traders (importers, exporters, wholesalers and retailers). In 2021, the number of biological operators in a control system represented 6.4% of the total number of registered farmers under Ordinance No. 3 of 29 January 1999 on the establishment and maintenance of a register of farmers. There is a decrease of nearly 1 percentage point compared to 2020, when this share was 7.2%.

#### 2.4.2. Organic plant growing

The total areas on which the methods of organic production were applied (transitional areas and organic areas) in 2021 amounted to 86,310 ha, 25.7% less than in 2020 and represented 1.7% of the used agricultural area in the country.

The largest share of the total areas in the control system in 2021 (nearly 27%) is occupied by the areas with perennials, which shank by 6.9% on an annual basis, up to 23,124 ha. Areas in a control system with grain-legumes, protein crops for grain production saw a decrease of 45.1% or 5,527 ha compared to 2020. Areas in a control system with permanent meadows and pastures also decreased seriously - by 36,8% (11,090 ha) and with technical crops - by 32% (8,709 ha). On the other hand, the areas with crops for green/ feed crops from arable land increased by 373 ha or by nearly 80% compared to the previous year.

**Table II.30. Areas under a control system, including "in transition" and "organic" (ha)**

Type of crops	2020	2021
Cereals, incl. rice	15,550.3	12,496.6
Cereals, protein crops for grain production	12,245.4	6,718.7
Root crops	433.4	588.8
Industrial crops - total	27,253.1	18,544.0
Green/Forage crops from arable land	468.7	841.5
Fresh vegetables, melons, strawberries, cultivated mushrooms (greenhouse and field production)	2,107.8	1,716.2
Perennials	24,829.3	23,124.0
Permanent meadows and pastures	30,153.8	19,063.4
Fallow land	3,191.8	3,216.9
<b>Total areas in a control system</b>	<b>116,233.5</b>	<b>86,310.0</b>

Source: Ministry of Agriculture, according to data from the controlling persons, entered in the register under Art. 16a, para. 1, item 1 of the Act on the Implementation of the General Organization of the Markets of Agricultural Products of the European Union.

**Table II.31. Areas of organically grown crops and areas in transition (ha)**

Type of crops	Areas in transition		Areas that have passed the transition period		Total area	
	2020	2021	2020	2021	2020	2021
Cereals, incl. rice	1,144.6	1,553.6	14,405.7	10,943.0	15,550.3	12,496.6
Industrial Crops	3,877.6	3,226.0	23,375.5	15,318.0	27,253.1	18,544.0
Fresh vegetables, melons, and strawberries	209.9	277.4	1,897.8	1,438.8	2,107.8	1,716.2
Perennials	3,870.8	3,741.4	20,958.5	19,382.6	24,829.3	23,124.0

Type of crops	Areas in transition		Areas that have passed the transition period		Total area	
	2020	2021	2020	2021	2020	2021
Permanent meadows and pastures	7,918.6	4,380.3	22,235.2	14,683.1	30,153.8	19,063.4
Fodder crops from arable land (green crops)	27.1	15.3	441.6	826.2	468.7	841.5
Fallow land	1,400.0	1,450.9	1,791.9	1,765.9	3,191.8	3,216.9

Source: Ministry of Agriculture, according to data from the controlling persons, entered in the register under Art. 16a, para. 1, item 1 of the Act on the Implementation of the General Organization of the Markets of Agricultural Products of the European Union.

### 2.4.3. Organic Livestock Breeding

In 2021, the trend of weaker development of the organic livestock sector in Bulgaria compared to organic crop production remained the same. Mainly bees, goats, cattle, and sheep are reared organically in the country. Compared to the previous year, there was a slight increase in the number of sheep, cattle and buffaloes in a control system and a decrease in the number of goats and bee colonies.

**Table II.32. Livestock in a control system**

	Number of organically raised animals		Total number of animals as of November 1, 2021.	Share of organically raised animals from the total number of animals as of November 1, 2021
	2020	2021		
Cattle and buffaloes	10,343	10,408	611,100	1.7%
Sheep	19,090	19,873	1,199,500	1.7%
Goats	8,296	8,108	215,000	3.8%
Bee colonies	223,151	218,949	837,955	26.1%

Source: Ministry of Agriculture, according to data from the controlling persons, entered in the register under Art. 16a, para. 1, item 1 of the Act on the Implementation of the General Organization of the Markets of Agricultural Products of the European Union.

In 2021, 10,651.4 tons of raw milk, 249,806 eggs, 2,652.3 tons of honey and bee products were produced by organic means.

### 2.4.4. Organic products market

The prevailing part of the organically produced foods in the country are exported, mainly to the European market. Bulgaria mainly exports certified wild dried berries and herbs. Frozen fruits (strawberries, raspberries and blueberries), honey, essential rose oil, lavender, mint, white cheese, yellow cheese, and jams are exported and are very well received on the international markets. In 2021, the number of specialized stores for the sale of organic food continues to increase, as well as the commercial establishments that are included in the distribution of organic food. The Ministry of Agriculture carries out effective supervision and control in the field of organic farming, which makes Bulgarian organic products legitimate on the EU common market. The development of the sector is encouraged through information and awareness-raising activities on the benefits and advantages of organic farming.

## 2.5. Viticulture and wine production

### 2.5.1. Grapes production

## Areas

In 2021, the areas with vine plantations in the holdings, including the fruiting ones, the young ones that have not started fruiting, and the ones abandoned for up to 5 years with the possibility of restoration, amount to 34,237 ha. About 4% of the areas on the farms were young, at non-fruiting age.

The newly planted vineyards are about 190 ha.

The total harvested areas with vines in 2020 are 28,533 ha with 0.7% less on an annual basis. In the case of white grape wine varieties, the decrease of the harvested areas is a total of 3.6% for the country, most significantly in the south-central and northeastern regions, 15.8% and 11.8%, respectively. At the same time, in the Southwest region there was an increase in the harvested areas with white grape wine varieties with 18%, and in the Northwestern and Southeastern region - by 6.4% and 2.4%, respectively. In the case of red wine grape varieties, the total harvested areas are about 1.5% more compared to 2020. An increase in these areas is reported in the northwestern and southeastern regions - by 27.8% and 2.3%, respectively, and a decrease - in the north-central, northeastern and southwestern regions - within 4.7% - 14.6%. For dessert grape varieties, the total harvested area is 3.7% less compared to 2020, mainly due to a drop in the harvested area in the Southwestern region by nearly 54%.

Due to bad weather conditions, out of 1,493 ha of fruit-bearing vineyards, no produce was harvested.

**Table II.33. Distribution of harvested vineyards in 2020 - 2021 by statistical regions**

Regions	Red wine varieties (ha)		White wine varieties (ha)		Table varieties (ha)		Total vineyards (ha)	
	2020	2021	2020	2021	2020	2021	2020	2021
Northwestern	1,199	1,532	656	698	20	25	1,875	2,255
North-central	522	446	660	629	59	74	1,241	1,149
Northeastern	668	615	1,760	1,553	96	94	2,524	2,262
Southeastern	4,327	4,425	5,076	5,198	504	539	9,907	10,162
Southwestern	1,928	1,838	161	190	291	135	2,380	2,163
South-central	7,561	7,589	2,062	1,737	1,194	1,216	10,817	10,542
<b>Total</b>	<b>16,205</b>	<b>16,445</b>	<b>10,375</b>	<b>10,005</b>	<b>2,164</b>	<b>2,083</b>	<b>28,744</b>	<b>28,533</b>

Source: MA, Agrostistics Department

Of the total harvested vineyard area in 2021, 58% are with red wine varieties, 35% with white wine varieties and 7% with dessert varieties.

## Average yields

In 2021, higher average yields from vineyards were recorded compared to the previous year.

In the case of wine varieties, the average yield for the country increased by about 13%, up to 6,230 kg/ha, and in the case of dessert varieties - by about 11%, up to 6,392 ha/da.

The highest average yields were recorded in the southeast region, respectively 7,277 kg/ha for the wine varieties and 7,696 kg/ha for the dessert varieties.

**Table II.34. Average yields of grapes from vineyards, 2021 harvest**

Regions	Average yields from vineyards (kg/ha)	
	Wine varieties	Table varieties
Northwestern	4,198	5,960
North-central	6,429	4,986

Regions	Average yields from vineyards (kg/ha)	
	Wine varieties	Table varieties
Northeastern	6,350	4,170
Southeastern	7,277	7,696
Southwestern	5,975	5,926
South-central	5,641	6,132
<b>Bulgaria</b>	<b>6,230</b>	<b>6,392</b>

Source: MA, Agrostatistics Department

## Production

The total production of grapes in the country in 2021 amounted to 178,302 tons, which is nearly 12.1% growth on an annual basis. The grape harvested from vineyards amounted to 178,098 tons - 12.2% above the level of the previous year, in the ratio of wine variety - 93% and table variety - 7%. The production of grapes from vine-arbors shrank by 43.5% to 204 tons.

Traditionally, the largest production of vineyards was reported in the southeastern and south-central regions, where about 76% of all production is concentrated.

Compared to 2020, most regions of the country reported an increase in the production of grapes from vineyards, most significantly in the north-central region - by 27.7% and the southeastern region - by 19.4%. A decrease in production is present only in the northwestern and northeastern regions, respectively by 9.1% and 11.2%.

**Table II.35. Grape production, 2021 harvest**

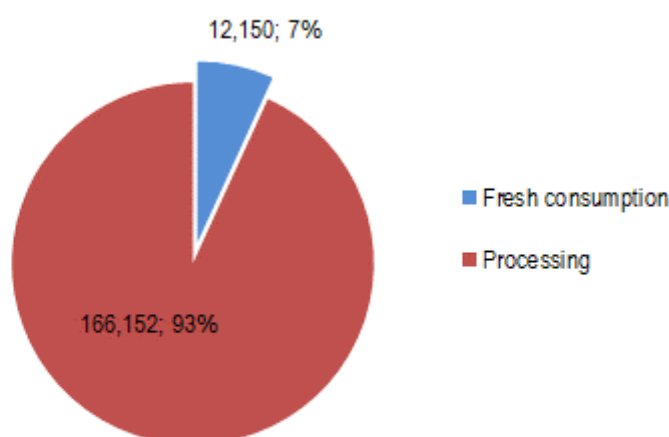
Regions	Grapes from the vineyards			Grapes from arbors (tons)	Total grapes produced (tons)
	Wine grape (tons)	Table grape (tons)	Total grapes produced from vineyards (tons)		
Northwestern	9,361	149	9,510	-	-
North-central	6,911	369	7,280	-	-
Northeastern	13,766	392	14,158	-	-
Southeastern	70,024	4,148	74,172	-	-
Southwestern	12,118	800	12,918	-	-
South-central	52,604	7,456	60,060	-	-
<b>Total</b>	<b>164,784</b>	<b>13,314</b>	<b>178,098</b>	<b>204</b>	<b>178,302</b>

Source: MA, Agrostatistics Department

Out of the total grape produced during the year, around 93% were destined for processing and 7% - for fresh consumption.

According to the data of the Executive Agency for Vine and Wine, in 2021 the quantity of wine grapes purchased and processed by wine enterprises amounted to 127,446 tons, which is 13.1 thousand tons less than the previous year.

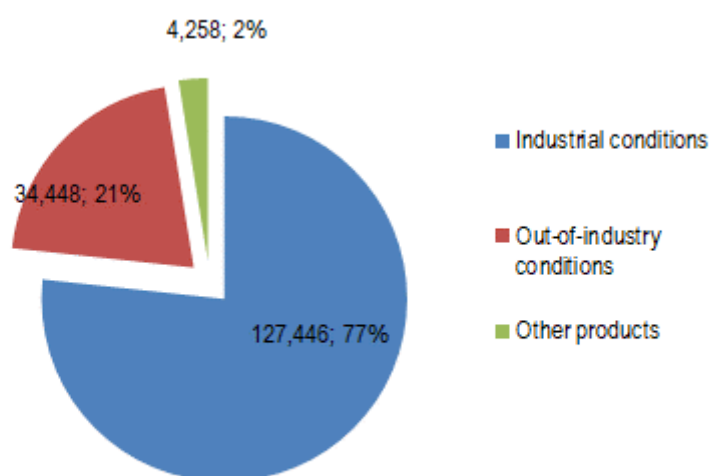
**Figure II.7. Distribution of grapes produced, 2021 harvest, tons and percentage**



*Source: MA, Agrostatistics Department*

Grapes intended for processing in non-industrial conditions amounted to 34,448 tons and 4,258 tons of processed grapes were used for products other than wine and grape must.

**Figure II.8. Distribution of grapes - harvest 2021, intended for processing, tons and percentage**



*Source: MA, Agrostatistics Department*

## 2.5.2. Wine production

The total production of wine from the 2021 harvest, declared by the registered wine producers, amounted to 837,467 hectoliters. This is 10.7% above the previous year, with an increase in the quantities produced for all categories of wines. The production of white wines increased by nearly 15% on an annual basis, to 445,497 hectoliters, and that of red wines and roses - by about 7%, to 391,970 hectoliters.

About 43.9% of industrially produced wines, vintage 2021, are regional wines (with a protected geographical indication), 0.6% - high-quality wines with a protected designation of origin, and 55.5% - other wines (including table wines).

The leader in wine production was the southeastern region with about 58% of total industrial production, followed by the south-central region with 17%. The share of wine produced in the North-West region was the smallest - 2%.

**Table II.36. Quantity of wine and raw grape juice produced by wine-producing enterprises, the 2021 harvest, hectoliters**

Region	PDO* wines (quality)		PGI** wines (regional)		Other wines (including table wines)		Raw grape juice	Total wine	
	white	red and rosé	white	red and rosé	white	red and rosé		white	red and rosé
Northwestern region	0	0	5,210	5,532	3,184	4,087	19,084	8,394	9,619
North-central region	0	1,427	17,659	17,819	12,764	12,406	0	30,423	31,652
Northeastern region	98	0	27,025	8,869	23,479	7,492	460	50,602	16,361
Southeastern region	459	1,728	80,039	90,311	205,517	103,603	2,774	286,015	195,642
Southwestern region	242	1,136	6,073	14,603	16,300	27,568	14,690	22,614	43,307
South-central region	0	11	22,249	72,009	25,199	23,370	14,642	47,448	95,389
<b>Total</b>	<b>799</b>	<b>4,302</b>	<b>158,254</b>	<b>209,142</b>	<b>286,444</b>	<b>178,526</b>	<b>51,650</b>	<b>445,497</b>	<b>391,970</b>

Source: Executive Agency on Vine and Wine

\*PDO- Protected designation of origin; \*\*PGI - Protected geographical indication

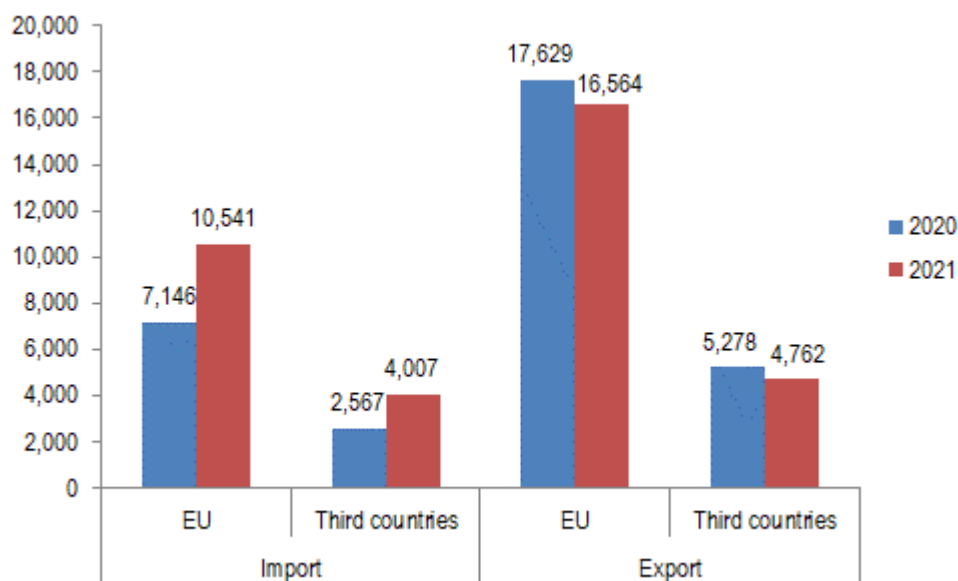
157,447 hectoliters of wine were produced in non-industrial conditions in 2021, compared to 135,792 hectoliters for the previous year.

Thus, the total production of wine in the 2021 harvest amounted to 994,914 hectoliters, 12% more than the 2020 harvest.

### 2.5.3. Export and Import of Wine

The export of wine from Bulgaria traditionally exceeds the import in the country.

**Figure II.9. Foreign trade in wine during the period 2020 - 2021, thousand liters**



Source: NSI

## Export

According to NSI data, 21,326 thousand liters of wine were exported in 2021 - 6.9% less compared to the previous year. In terms of value, exports decreased by only 0.8%, to 30,496 thousand euros, as a result of the 6.6% higher average export price of 1.43 euros/liter.

The total amount of wine sold in EU countries shrank by 6.0% on annual basis to 16,564 thousand liters (78% of all exports), mainly due to a drop in shipments to Sweden, the Czech Republic, Lithuania and Slovakia. The leading destination within the Union remains Poland with 8,514 thousand liters, which is 1% above the level of the previous year. The export of wine to France and Slovenia has increased significantly compared to 2020. The quantities exported to Germany, Denmark, the Netherlands, and Greece are also significantly higher.

In the export of wine to third countries in 2021, a decrease of 98% on an annual basis is reported, to 4,762 thousand liters. There was a serious decrease in exports to the Russian Federation, Nigeria, the United Kingdom, the United Arab Emirates, Rwanda and Japan, which was partially offset by the expansion of sales in the United States, Lebanon, Côte d'Ivoire, Mongolia, etc.

**Table II.37. Wine Exports in 2020 and 2021, liters**

Countries	2020	2021	Change 2021/2020	
			liters	%
<b>EU - total, including:</b>	<b>17,628,587</b>	<b>16,564,150</b>	<b>-1,064,436</b>	<b>-6.0%</b>
Poland	8,431,391	8,514,145	82,753	1.0%
Sweden	4,553,136	3,701,337	-851,802	-18.7%
Czech Republic	2,127,459	1,890,653	-236,806	-11.1%
Belgium	675,884	637,965	-37,920	-5.6%
Italy	346,821	291,276	-55,545	-16.0%
Germany	249,832	272,392	22,560	9.0%
France	37,240	251,736	214,497	576.0%
The Netherlands	147,014	169,063	22,050	15.0%
Slovakia	311,009	143,962	-167,046	-53.7%
Greece	111,161	134,925	23,764	21.4%
Croatia	106,176	114,216	8,040	7.6%
Lithuania	284,073	112,022	-172,051	-60.6%
Latvia	120,608	101,679	-18,929	-15.7%
Slovenia	2,772	92,462	89,690	3235.6%
Denmark	20,278	37,498	17,221	84.9%
Romania	53,462	31,399	-22,063	-41.3%
Others	50,274	67,424	17,150	34.1%
<b>Third countries, including:</b>	<b>5,278,221</b>	<b>4,762,110</b>	<b>-516,111</b>	<b>-9.8%</b>
United Kingdom	1,361,095	1,285,824	-75,271	-5.5%
Russian Federation	1,326,501	920,156	-406,346	-30.6%
Japan	661,269	621,906	-39,364	-6.0%
USA	469,503	583,209	113,707	24.2%
Nigeria	503,987	216,144	-287,843	-57.1%
China	161,046	170,419	9,373	5.8%
Côte d'Ivoire	81,896	132,165	50,270	61.4%
Benin	146,790	126,360	-20,430	-13.9%

Countries	2020	2021	Change 2021/2020	
			liters	%
Lebanon	14,999	111,704	96,705	644.8%
Mongolia	56,754	103,464	46,710	82.3%
Canada	43,439	62,422	18,983	43.7%
Brazil	58,799	59,465	666	1.1%
Switzerland	54,888	47,030	-7,858	-14.3%
United Arab Emirates	91,668	46,690	-44,978	-49.1%
Burundi	31,670	45,860	14,190	44.8%
Ghana	51,102	45,833	-5,270	-10.3%
Kazakhstan	29,867	41,280	11,414	38.2%
Ukraine	2,700	26,759	24,059	891.1%
Hong Kong	27,949	23,974	-3,975	-14.2%
Cameroon	0	10,512	10,512	100.0%
Central African Republic	0	9,608	9,608	100.0%
Others	102,302	71,331	-30,971	-30.3%
<b>TOTAL</b>	<b>22,906,807</b>	<b>21,326,260</b>	<b>-1,580,547</b>	<b>-6.9%</b>

Source: NSI and MA calculations.

### Import

The total import of wine in 2021 amounted to 14,548 thousand liters, marking a growth of 49.8% compared to 2020. At a slightly lower average import price of 2.07 euros/liter (-0.4%), the total value of imports reached 30,184 thousand euros - 49.1% more on an annual basis.

**Table II.38. Wine imports in 2020 and 2021, liters**

Countries	2020	2021	Change 2021/2020	
			liters	%
<b>EU - total, including:</b>	<b>7,146,293</b>	<b>10,540,603</b>	<b>3,394,310</b>	<b>47.5%</b>
Spain	2,110,735	3,657,455	1,546,720	73.3%
Italy	2,088,536	3,205,849	1,117,313	53.5%
France	1,175,691	1,737,854	562,163	47.8%
Germany	1,021,708	1,319,246	297,538	29.1%
Hungary	160,056	259,272	99,216	62.0%
Greece	85,320	70,225	-15,095	-17.7%
Sweden	130,119	69,381	-60,738	-46.7%
Czech Republic	107,487	62,106	-45,381	-42.2%
The Netherlands	40,439	48,279	7,840	19.4%
Portugal	16,144	36,572	20,428	126.5%
Romania	174,983	16,498	-158,485	-90.6%
Others	35,076	57,866	22,790	65.0%
<b>Third countries, including:</b>	<b>2,566,879</b>	<b>4,007,007</b>	<b>1,440,128</b>	<b>56.1%</b>
Northern Macedonia	1,542,483	2,598,140	1,055,658	68.4%
New Zealand	422,994	504,550	81,557	19.3%



Countries	2020	2021	Change 2021/2020	
			liters	%
South Africa	97,957	313,580	215,623	220.1%
Moldova	212,387	219,911	7,524	3.5%
Chile	98,082	170,326	72,244	73.7%
Argentina	85,724	89,793	4,070	4.7%
United Kingdom	20,433	40,232	19,799	96.9%
Georgia	26,078	26,672	594	2.3%
Ukraine	37,791	630	-37,161	-98.3%
Others	22,952	43,173	20,221	88.1%
<b>TOTAL</b>	<b>9,713,172</b>	<b>14,547,610</b>	<b>4,834,438</b>	<b>49.9%</b>

Source: NSI and MA calculations.

EU wine supplies increased by 47.5% on an annual basis, to 10,541 thousand liters, representing 72.4% of the total imports. Traditionally, the most significant quantities have been imported from Spain, Italy, France and Germany, with all four countries showing a significant increase compared to 2020 - between 29.1% and 73.3%. At the same time, deliveries from Romania decreased by nearly 91%.

Imports of wine from non-EU countries in 2021 amounted to 4,007 thousand liters - 56.1% above the level of 2020, mainly due to the growth of deliveries from the Republic of Northern Macedonia with 1,056 thousand liters or 68.4%. The quantities imported from South Africa, New Zealand, Chile and the United Kingdom are also significantly larger. The exception is imports from Ukraine, which fell to an insignificant volume during the year.

### III. TRADE IN AGRICULTURAL GOODS

#### 1. Key trading indicators

According to NSI data, in 2021 Bulgaria's agricultural trade amounted to EUR 10,4595 million, which is 19.1% above the level of 2020. The export of agricultural goods increased by 26.2% compared to the previous year, to EUR 6,041 million. With a smaller increase in imports (10.5%), the traditionally positive balance in Bulgaria's agricultural trade grew two-fold on an annual basis, reaching EUR 1.6 billion.

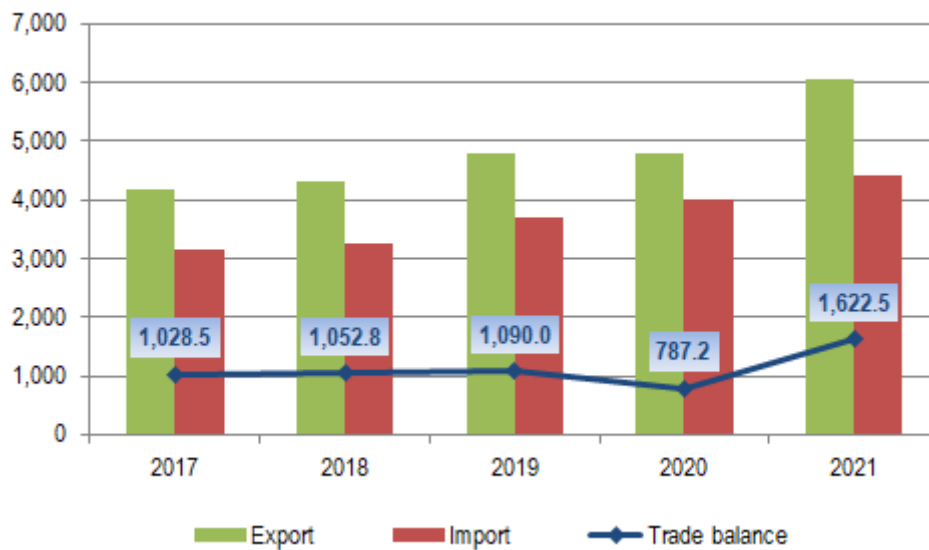
In 2021, the agricultural sector formed 14.1% of the country's total trade for the year, including 17.3% of total exports and 11.3% of total imports.

**Table III.1. Agricultural trade in Bulgaria in the period 2017 - 2021 (EUR thousand)**

	2017	2018	2019	2020	2021	Change 2021/2020 (%)
Agricultural export	4,171,713	4,308,894	4,793,025	4,786,078	6,041,008	26.2%
Share of total exports	14.9%	15.0%	16.0%	17.1%	17.3%	
Agricultural imports	3,143,166	3,256,142	3,702,996	3,998,845	4,418,467	10.5%
Share of total imports	10.4%	10.1%	11.0%	13.0%	11.3%	
Balance	1,028,547	1,052,752	1,090,029	787,233	1,622,541	106.1%
Commodity exchange	7,314,879	7,565,036	8,496,021	8,784,923	10,459,475	19.1%

Source: NSI and MA calculations.

**Figure III.1. Agricultural trade of Bulgaria (million euros)**

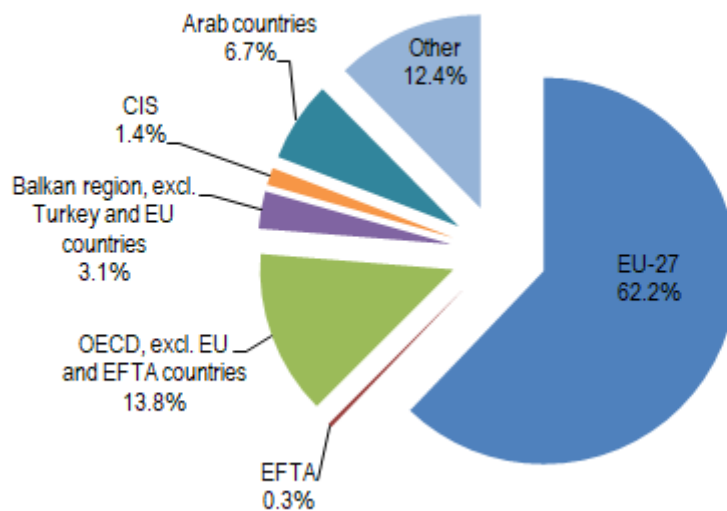


Source: NSI

## 2. Structure of Bulgaria's agricultural trade by country

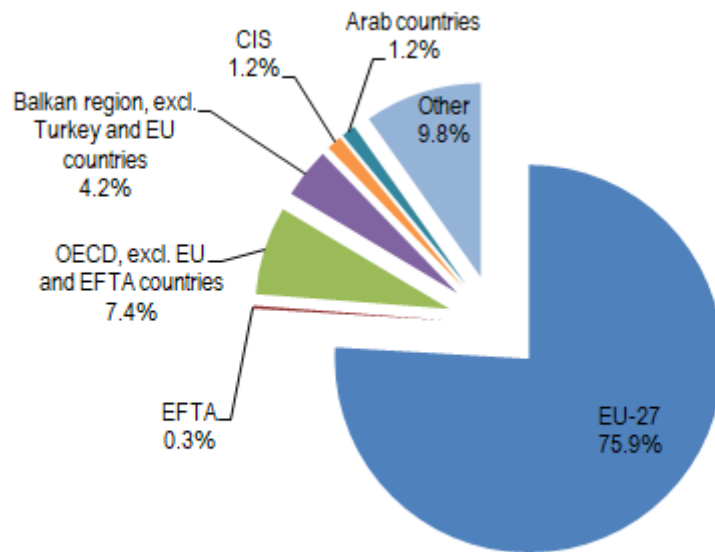
In recent years, Bulgaria's main partner in trade in agricultural goods are the countries of the European Union. In 2021, trade with the EU represents 62.2% of Bulgaria's total agricultural exports and 75.9% of total agricultural imports.

**Figure III.2. Bulgaria's Agricultural Exports by Economic Communities and Regions in 2021**



Source: NSI and MA calculations

**Figure III.3. Bulgaria's Agricultural Imports by Economic Communities and Regions in 2021**



Source: NSI and MA calculations

**Table III.2. Imports and exports of agricultural goods by economic communities and regions in 2020 and 2021 (EUR million)**

	2020					2021				
	Export		Import		Balance	Export		Import		Balance
	million euros	%	million euros	%	million euros	million euros	%	million euros	%	million euros
<b>All countries, including:</b>	<b>4,786.1</b>	<b>100.0</b>	<b>3,998.8</b>	<b>100.0</b>	<b>787.2</b>	<b>6,041.0</b>	<b>100</b>	<b>4,418.5</b>	<b>100</b>	<b>1,622.5</b>
European Union*	3,041.3	63.5	2,883.5	72.1	157.8	3,755.0	62.2	3,355.6	75.9	399.4
EFTA**	17.7	0.4	9.6	0.2	8.1	20.7	0.3	11.6	0.3	9.2
OECD***, excluding the EU and EFTA countries	705.6	14.7	297.0	7.4	408.6	833.0	13.8	326.1	7.4	506.8
including USA	147.4	3.1	21.9	0.5	125.5	156.2	2.6	21.7	0.5	134.5
Balkan region, excluding Turkey and EU countries ****	175.7	3.7	153.9	3.8	21.8	188.7	3.1	185.2	4.2	3.6
CIS	79.3	1.7	172.3	4.3	-93.0	87.3	1.4	55.2	1.2	32.1
including Russian Federation	57.9	1.2	143.5	3.6	-85.6	63.7	1.1	11.5	0.3	52.2
Arab countries (League of Arab States)	326.6	6.8	31.0	0.8	295.5	406.9	6.7	52.0	1.2	354.9
Others	439.9	9.2	451.5	11.3	-11.6	749.4	12.4	432.8	9.8	316.6

Source: NSI and MA calculations.

\* Includes 27 member states of the European Union (excluding the United Kingdom)

\*\*Includes: Iceland, the Principality of Liechtenstein, the Kingdom of Norway, and Switzerland

\*\*\*Includes: Australia, Canada, New Zealand, the United Kingdom, the United States, Turkey, Japan, Republic of Korea, Mexico, Chile, and Israel

\*\*\*\*Includes: Albania, Bosnia and Herzegovina, Macedonia, Serbia, Montenegro and Kosovo

## 2.1. Exports by country

The leading destinations of Bulgarian exports of agricultural goods in 2021 remain neighboring Greece and Romania (together forming nearly a quarter of the total agricultural exports for the year), followed by Spain, Germany, Italy, the Netherlands, France, Poland, etc.

**Table III.3. Export of agricultural goods by country (thousand euros)**

	2019	2020	2021	Share in total agricultural exports (2021)	Change 2021/2020	
					EUR thousand	%
<b>TOTAL, including:</b>	<b>4,793,025</b>	<b>4,786,078</b>	<b>6,041,008</b>	<b>100.0%</b>	<b>1,254,930</b>	<b>26.2%</b>
<b>EU-27, total, including:</b>	<b>3,110,174</b>	<b>3,041,348</b>	<b>3,754,979</b>	<b>62.2%</b>	<b>713,631</b>	<b>23.5%</b>
Greece	648,501	584,939	744,863	12.3%	159,925	27.3%
Romania	540,555	578,028	679,769	11.3%	101,741	17.6%
Spain	331,868	259,483	438,191	7.3%	178,708	68.9%
Germany	275,572	317,935	371,305	6.1%	53,370	16.8%
Italy	245,446	286,179	341,849	5.7%	55,671	19.5%
The Netherlands	240,068	251,270	294,807	4.9%	43,537	17.3%
France	152,636	137,369	184,599	3.1%	47,229	34.4%
Poland	118,729	121,013	156,285	2.6%	35,272	29.1%
Belgium	112,697	103,214	97,678	1.6%	-5,535	-5.4%
Cyprus	48,628	44,760	72,133	1.2%	27,372	61.2%
Hungary	47,382	49,286	67,373	1.1%	18,087	36.7%
Others	348,092	307,873	306,127	5.1%	-1,746	-0.6%
<b>Third countries, including:</b>	<b>1,682,851</b>	<b>1,744,730</b>	<b>2,286,029</b>	<b>37.8%</b>	<b>541,299</b>	<b>31.0%</b>
Turkey	288,318	309,317	357,824	5.9%	48,507	15.7%
China	44,829	65,692	161,498	2.7%	95,806	145.8%
USA	107,142	147,406	156,208	2.6%	8,802	6.0%
Korea	69,279	17,403	148,881	2.5%	131,478	755.5%
United Kingdom	136,988	140,839	159,221	2.6%	18,382	13.1%
Israel	34,470	37,297	105,816	1.8%	68,519	183.7%
Libya	60,085	75,979	98,996	1.6%	23,018	30.3%
Tunisia	17,598	27,425	93,392	1.5%	65,967	240.5%
Pakistan	7,324	15,488	67,961	1.1%	52,472	338.8%
Vietnam	10,113	3,097	64,093	1.1%	60,997	1969.7%
Russian Federation	64,676	57,894	63,718	1.1%	5,824	10.1%
Indonesia	46,993	23,874	55,185	0.9%	31,312	131.2%
Serbia	40,010	44,206	55,076	0.9%	10,870	24.6%
Northern Macedonia	49,960	48,432	53,989	0.9%	5,557	11.5%
Others	705,065	730,381	644,170	10.7%	-86,211	-11.8%

Source: NSI and MA calculations.

With almost all main partners, an increase in exports compared to the previous year is reported. Shipments of agricultural goods to the EU increased by 23.5% on an annual basis, and exports to third countries - by 31%.

## 2.2. Import by country

In 2021, the most significant is the import of agricultural goods from Romania, Greece and Germany, followed by Poland, the Netherlands, Turkey, Italy, Hungary, Spain, etc. Agricultural imports from EU member states were 16.4% above the level of the previous year, while those from third countries shrank by 4.7%. The decrease in imports from the Russian Federation and Ukraine is mainly related to the dynamics of sunflower supplies from both countries, which marked a several-fold increase on an annual basis in 2020 and decreased in 2021 (the Russian Federation did not even register sunflower imports in 2021).

**Table III.4. Imports of agricultural goods by country (thousand euros)**

	2019	2020	2021	Share in total agricultural imports (2021)	Change 2021/2020	
					EUR thousand	%
<b>TOTAL, including:</b>	<b>3,702,996</b>	<b>3,998,783</b>	<b>4,418,467</b>	<b>100.0%</b>	<b>419,622</b>	<b>10.5%</b>
<b>EU-27, total, including:</b>	<b>2,794,515</b>	<b>2,883,530</b>	<b>3,355,558</b>	<b>75.9%</b>	<b>472,028</b>	<b>16.4%</b>
Romania	498,080	512,439	685,924	15.5%	173,484	33.9%
Greece	375,614	389,799	468,252	10.6%	78,454	20.1%
Germany	360,033	405,995	453,460	10.3%	47,465	11.7%
Poland	289,816	270,153	309,143	7.0%	38,990	14.4%
The Netherlands	217,928	228,051	262,182	5.9%	34,130	15.0%
Italy	223,532	243,705	233,491	5.3%	-10,213	-4.2%
Hungary	147,924	155,038	190,768	4.3%	35,730	23.0%
Spain	164,955	141,108	162,054	3.7%	20,946	14.8%
France	127,269	123,693	146,909	3.3%	23,216	18.8%
Belgium	60,192	85,822	88,301	2.0%	2,479	2.9%
Austria	77,259	75,734	79,160	1.8%	3,426	4.5%
Czech Republic	57,435	52,959	63,158	1.4%	10,199	19.3%
Lithuania	24,412	28,532	40,364	0.9%	11,832	41.5%
Denmark	34,551	36,716	37,693	0.9%	977	2.7%
Others	135,515	133,786	134,699	3.0%	913	0.7%
<b>Third countries, including:</b>	<b>908,481</b>	<b>1,115,315</b>	<b>1,062,909</b>	<b>24.1%</b>	<b>-52,406</b>	<b>-4.7%</b>
Turkey	164,893	190,498	261,184	5.9%	70,685	37.1%
Serbia	106,087	116,450	140,928	3.2%	24,478	21.0%
Ukraine	54,280	144,101	95,626	2.2%	-48,475	-33.6%
China	45,255	65,240	62,368	1.4%	-2,872	-4.4%
United Kingdom	59,528	55,366	51,024	1.2%	-4,342	-7.8%
Moldova	40,026	22,139	38,158	0.9%	16,019	72.4%
Côte d'Ivoire	36,740	19,903	35,701	0.8%	15,798	79.4%
Northern Macedonia	44,860	29,220	34,494	0.8%	5,274	18.1%
Ecuador	21,811	23,105	23,021	0.5%	-84	-0.4%
Others	335,000	449,293	320,405	7.3%	-128,888	-28.7%

Source: NSI and MA calculations.

### 3. Structure of Bulgaria's agricultural trade by products

#### 3.1. Export by products

The leading groups of products in the structure of agricultural exports in 2021 are cereal plants and oilseeds, representing respectively 27.7% and 13.8% of the total value of agricultural goods sold outside the country. The export of fats of vegetable or animal origin, residues from the food industry and prepared animal feed, food products prepared on the basis of cereal plants, cocoa products, soft drinks, etc., is also relatively large.

**Table III.5. Agricultural exports from Bulgaria by product groups in the period 2020-2021 (thousand euros)**

		2020		2021		Change 2021/2020 %
		EUR, thousand	share of the total agricultural exports %	EUR thousand	share of the total agricultural exports %	
	<b>Total agricultural goods, including:</b>	<b>4,786,078</b>	<b>100%</b>	<b>6,041,008</b>	<b>100.0%</b>	<b>26.2%</b>
1	Live animals	40,940	0.9%	40,530	0.7%	-1.0%
2	Meat and edible offal	115,472	2.4%	148,186	2.5%	28.3%
3	Fish and crustaceans, molluscs and other aquatic invertebrates	34,030	0.7%	43,197	0.7%	26.9%
4	Milk and milk products; poultry eggs; natural honey; edible products of animal origin, not elsewhere specified	200,193	4.2%	229,154	3.8%	14.5%
5	Other products of animal origin, not elsewhere specified	12,316	0.3%	16,739	0.3%	35.9%
6	Live plants and flower products	18,929	0.4%	14,824	0.2%	-21.7%
7	Edible vegetables, plants, roots and tubers	114,674	2.4%	141,295	2.3%	23.2%
8	Edible fruit; citrus or melon peels	104,476	2.2%	127,834	2.1%	22.4%
9	Coffee, tea, maté and spices	101,866	2.1%	97,028	1.6%	-4.7%
10	Wheat plants	1,171,708	24.5%	1,673,915	27.7%	42.9%
11	Milling products; malt and starch; inulin; wheat gluten	56,090	1.2%	61,809	1.0%	10.2%
12	Oilseeds and oleaginous fruits; seeds for sowing and fruits; industrial or medicinal plants; straw and feed	614,719	12.8%	832,083	13.8%	35.4%
13	Natural varnishes, glues, resins and other plant juices and extracts	2,443	0.1%	3,339	0.1%	36.7%
14	Weaving materials and other products of vegetable origin, not elsewhere specified or included	1,256	0.0%	1,134	0.0%	-9.7%
15	Fats and oils of animal or vegetable origin; processed fats for food purposes; waxes of animal or vegetable origin	435,048	9.1%	713,155	11.8%	63.9%
16	Products of meat, fish or crustacean products, molluscs or other aquatic invertebrates	92,984	1.9%	101,360	1.7%	9.0%
17	Sugar and sugar confectionery	94,340	2.0%	122,751	2.0%	30.1%
18	Cocoa and cocoa products	244,761	5.1%	257,061	4.3%	5.0%
19	Food prepared from cereals, flour, starch, farina or milk; pastry confectionery	268,974	5.6%	310,874	5.1%	15.6%

		2020		2021		Change 2021/2020 %
		EUR, thousand	share of the total agricultural exports %	EUR thousand	share of the total agricultural exports %	
20	Food products from vegetables, fruit or other parts of plants	157,551	3.3%	165,739	2.7%	5.2%
21	Various types of food products	134,906	2.8%	152,564	2.5%	13.1%
22	Non-alcoholic and alcoholic beverages and vinegars	271,417	5.7%	212,418	3.5%	-21.7%
23	Residues and waste from the food industry; prepared animal feed	334,109	7.0%	408,733	6.8%	22.3%
24	Tobacco and processed tobacco substitutes	162,877	3.4%	165,288	2.7%	1.5%

Source: NSI and MA calculations.

The main contribution to the increase in total agricultural exports in 2021 is the registered significant growth in the value of exported wheat (by EUR 516.7 million or 84.2% on an annual basis), sunflower oil (by EUR 249 million or 62.4%), sunflower (with 134.1 million euros or 28.6%) and rapeseed (with 76.3 million euros or two-fold). The export of meatballs and poultry meat also increased seriously (respectively by 42.7% and 25.4% in terms of value). A large part of this increase is due to the achieved higher export prices of the mentioned products compared to the previous year.

**Table III.6. Leading products in agricultural exports from Bulgaria (thousand euros)**

	2020		2021		Change 2021/2020	
	Quantity (tons)	Value (EUR thousand)	Quantity (tons)	Value (EUR thousand)	Quantity	Value
Wheat and a wheat and rye mix	3,230,283	613,592	5,119,222	1,130,256	58.5%	84.2%
Sunflower oil, cottonseed oil or safflower oil	524,522	399,005	559,477	647,970	6.7%	62.4%
Sunflower seeds, even crushed	818,423	468,562	758,222	602,642	-7.4%	28.6%
Corn	2,593,043	441,201	1,759,340	398,509	-32.2%	-9.7%
Bakery, pastry or biscuit products	95,530	232,104	106,400	267,829	11.4%	15.4%
Chocolate and other food products containing cocoa	49,598	192,220	50,414	205,018	1.6%	6.7%
Preparations used in animal feeding	131,666	165,553	135,853	182,067	3.2%	10.0%
Meat and other solid residues resulting from the extraction of vegetable fats or oils	570,857	115,249	645,340	164,476	13.0%	42.7%
Rapeseed, even broken	192,837	76,046	270,658	152,309	40.4%	100.3%
Food preparations not elsewhere specified or included	35,782	117,760	42,638	134,151	19.2%	13.9%
Poultry meat and offal	32,329	94,759	35,277	118,869	9.1%	25.4%
Raw or unprocessed tobacco; tobacco waste	22,933	109,326	22,908	111,205	-0.1%	1.7%

	2020		2021		Change 2021/2020	
	Quantity (tons)	Value (EUR thousand)	Quantity (tons)	Value (EUR thousand)	Quantity	Value
Cheese and curd	23,379	90,577	25,758	97,931	10.2%	8.1%
Fruit, nuts and other parts of plants fit for consumption, prepared or preserved	46,147	92,681	40,812	94,005	-11.6%	1.4%
Barley	337,458	58,164	431,273	93,558	27.8%	60.9%

Source: NSI and MA calculations.

### 3.2. Import by products

The groups oilseeds and fruits (10.5%) and meat and offal (9.2%) take the largest share in the structure of the total import of agricultural goods in 2021, followed by non-alcoholic and alcoholic beverages and vinegar; milk and milk products, bird's eggs and natural honey; fats and oils of animal or vegetable origin; tobacco and processed tobacco substitutes; cocoa and cocoa products; fruit, etc.

**Table III.7. Agricultural imports into Bulgaria by product groups in the period 2020-2021 (thousand euros)**

		2020		2021		Change 2021/2020 %
		EUR, thousand	Share of the total agricultural import %	EUR thousand	Share of the total agricultural import %	
	<b>Total agricultural goods, including:</b>	<b>3,998,845</b>	<b>100%</b>	<b>4,418,467</b>	<b>100%</b>	<b>10.5%</b>
1	Live animals	31,070	0.8%	26,703	0.6%	-14.1%
2	Meat and edible offal	399,762	10.0%	405,215	9.2%	1.4%
3	Fish and crustaceans, molluscs and other aquatic invertebrates	83,400	2.1%	99,935	2.3%	19.8%
4	Milk and milk products; poultry eggs; natural honey; edible products of animal origin, not elsewhere specified	247,914	6.2%	306,200	6.9%	23.5%
5	Other products of animal origin, not elsewhere specified	19,521	0.5%	22,503	0.5%	15.3%
6	Live plants and flower products	26,902	0.7%	31,855	0.7%	18.4%
7	Edible vegetables, plants, roots and tubers	191,647	4.8%	221,396	5.0%	15.5%
8	Edible fruit; citrus or melon peels	228,487	5.7%	275,736	6.2%	20.7%
9	Coffee, tea, maté and spices	134,776	3.4%	137,453	3.1%	2.0%
10	Wheat plants	94,179	2.4%	106,596	2.4%	13.2%
11	Milling products; malt and starch; inulin; wheat gluten	25,953	0.6%	28,012	0.6%	7.9%
12	Oilseeds and oleaginous fruits; seeds for sowing and fruits; industrial or medicinal plants; straw and feed	523,281	13.1%	462,066	10.5%	-11.7%
13	Natural varnishes, glues, resins and other plant juices and extracts	20,681	0.5%	19,023	0.4%	-8.0%
14	Weaving materials and other products of vegetable origin, not elsewhere specified or included	839	0.0%	1,308	0.0%	55.9%



		2020		2021		Change 2021/2020 %
		EUR, thousand	Share of the total agricultural import %	EUR thousand	Share of the total agricultural import %	
15	Fats and oils of animal or vegetable origin; processed fats for food purposes; waxes of animal or vegetable origin	175,958	4.4%	296,468	6.7%	68.5%
16	Products of meat, fish or crustacean products, molluscs or other aquatic invertebrates	66,941	1.7%	73,464	1.7%	9.7%
17	Sugar and sugar confectionery	133,817	3.3%	137,178	3.1%	2.5%
18	Cocoa and cocoa products	263,828	6.6%	286,085	6.5%	8.4%
19	Food prepared from cereals, flour, starch, farina or milk; pastry confectionery	188,206	4.7%	230,415	5.2%	22.4%
20	Food products from vegetables, fruit or other parts of plants	157,041	3.9%	165,052	3.7%	5.1%
21	Various types of food products	221,728	5.5%	259,552	5.9%	17.1%
22	Non-alcoholic and alcoholic beverages and vinegars	346,189	8.7%	359,815	8.1%	3.9%
23	Residues and waste from the food industry; prepared animal feed	155,693	3.9%	174,612	4.0%	12.2%
24	Tobacco and processed tobacco substitutes	261,033	6.5%	291,825	6.6%	11.8%

Source: NSI and MA calculations.

Compared to the previous year, in 2021 there was a serious drop in sunflower imports (by 24% in value terms). The value of delivered water and soft drinks (by 7.9%), pork (by 5.3%), and sugar (by 1%) decreased less, while the rest of the main imported products increased, most significantly in animal or vegetable fats and oils and their fractions (almost three-fold).

**Table III.8. Leading products in agricultural imports in Bulgaria (thousand euros)**

	2020		2021		Change 2021/2020	
	Quantity (tons)	Value (EUR thousand)	Quantity (tons)	Value (EUR thousand)	Quantity	Value
Sunflower seeds, even crushed	1,020,753	436,913	585,158	331,989	-42.7%	-24.0%
Pork	126,380	243,597	138,373	230,694	9.5%	-5.3%
Cigars (including those with cut ends), cigarillos and cigarettes of tobacco or of tobacco substitutes	14,565	165,900	14,625	176,345	0.4%	6.3%
Chocolate and other food products containing cocoa	38,450	164,421	39,718	172,802	3.3%	5.1%
Bakery, pastry or biscuit products	50,918	123,481	64,678	153,600	27.0%	24.4%
Food preparations not elsewhere specified or included	26,366	123,373	30,094	145,652	14.1%	18.1%
Waters, including mineral waters and aerated waters, sweetened with sugar or other sweeteners or flavored, and other non-alcoholic beverages	221,432	150,122	221,272	138,203	-0.1%	-7.9%
Coffee and coffee substitutes	39,984	115,230	38,213	116,077	-4.4%	0.7%

	2020		2021		Change 2021/2020	
	Quantity (tons)	Value (EUR thousand)	Quantity (tons)	Value (EUR thousand)	Quantity	Value
Cheese and curd	28,139	88,740	33,447	110,191	18.9%	24.2%
Undenatured ethyl alcohol of an alcoholic strength by volume of less than 80% vol; distillates, liqueurs and other spirituous beverages	16,520	88,165	18,950	109,791	14.7%	24.5%
Poultry meat and offal	99,515	90,033	93,348	99,559	-6.2%	10.6%
Preparations used in animal feeding	86,047	85,343	91,203	93,504	6.0%	9.6%
Cane or beet sugar	232,259	94,408	207,950	93,460	-10.5%	-1.0%
Animal or vegetable fats and oils and their fractions	37,666	29,304	81,840	87,216	117.3%	197.6%
Raw or unprocessed tobacco; tobacco waste	18,153	57,771	23,771	73,672	30.9%	27.5%

Source: NSI and MA calculations.

#### 4. Development of foreign trade in agricultural goods in 2022

According to preliminary NSI data, in the first six months of 2022 the export of agricultural goods amounted to EUR 4,137.5 million, an increase of 55.4% compared to the same period in 2021. The increased exports of fats and oils of vegetable or animal origin (mainly sunflower oil) and of grain plants - respectively with 539.8 million euros or about two and a half times and with 525.6 million euros or 81.4%. The value of exported residues and waste from the food industry and prepared animal feed also significantly increased (by 50.3%), meat and offal (by 74.7%), oilseeds and fruits (by 11.2%), sugar and sugar products (by 58.8%), food products prepared on the basis of cereal plants (by 21.1%), cocoa products (by 22.8%), etc.

The leading groups of products in the structure of the country's agrarian exports in the period January - June 2022 are cereal plants and fats of vegetable or animal origin, followed by oilseeds; residues and waste from the food industry and prepared animal feed; food products prepared on the basis of cereal plants; cocoa products; dairy products, eggs and honey; non-alcoholic and alcoholic beverages; meats etc.

Imports of agricultural goods for the six months of 2022 reported a slightly smaller increase on an annual basis - by 51.8% to EUR 3,041.3 million.

Thus, for the first half of 2022, there was a positive trade balance for Bulgaria in the amount of nearly 1.1 billion euros, with 66.3% more compared to the same period of 2021.

Main partners in the country's agricultural trade remain the EU countries. In the first six months of 2022, the exchange of agricultural goods with the EU increased by 45.1% on an annual basis, forming 63.5% of total agricultural exports and 64.5% of total agricultural imports.

#### 5. Activities to support the export of agricultural products

One of the main mechanisms to support exports is the collection and provision of information on potential markets for agricultural products produced in the country. In this regard, upon receipt of specific inquiries in 2021, market analyses and studies on the opportunity of exporting various agricultural products to trading partners from both the EU and third countries were conducted. One such study, shared with the business sector, is an analysis of the opportunities for exporting agricultural products to the countries of the Western Balkans - Albania, Bosnia and Herzegovina, Kosovo, North Macedonia, Serbia, Montenegro, Croatia.

In 2021, the Ministry of Economy made a request for assistance and the provision of information, based on the experience and knowledge of the Trade and Economic Affairs Offices (TEA) at the Ministry of Economy and Industry, regarding opportunities to increase the export potential of Bulgarian agricultural products in order to support producers and increase the export of agricultural products and food. The resulting information has

been made available to a wide range of Bulgarian producers and exporters of agricultural goods and food, so that they can benefit from the events held abroad and from the support of TEA in places.

The MA monitors and analyzes the negotiations led in 2021 by the EU and third countries on a number of free trade agreements (FTAs) aimed at easing administrative burdens in trade and trade. The subject of consideration are the trade and economic relations in the agricultural sector between Bulgaria and the respective countries, with which trade agreements are to be concluded.

In 2021, the continuations for concluding FTAs between Australia, New Zealand, Mercosur, Chile, Indonesia, and Mexico continued. The effect of the implementation of the Trade and Cooperation Agreement between the European Union and the European Atomic Energy Community and the United Kingdom of Great Britain and Northern Ireland was also monitored.

The Cooperation Agreement between the EU and China for the protection of geographical indications entered into force, which will be revised during the first four years of its implementation, and this concerns some Bulgarian names.

Regarding the Airbus-Boeing case, in respect to which the most affected duties for import of European agricultural goods into the US are cheeses (mostly from cow's milk, since for the main tariff positions, under which sheep's milk is imported from Bulgaria, there are no additional duties for Bulgaria) and processed cherries, an agreement was reached between the EU and the US on 15 June 2021, according to which "each party intends to suspend the application of its countermeasures for a period of five years".

Due to the review of the implementation of the Association Agreement between the EU and Ukraine, which began in 2021, the Ministry of Agriculture formulated a position regarding the need to protect the defensive interests of Bulgaria in relation to this major exporter of agricultural goods to the EU. In the context of Russia's military attack on Ukraine on February 24, 2022 and the Commission's proposed Regulation of the European Parliament and of the Council to introduce measures to liberalize trade for a period of one year, the Ministry of Agriculture is revising its position on this agreement.

The Ministry of Agriculture traditionally organizes the country's participation in various international events and exhibitions for the food industry in order to promote and build a recognizable image of Bulgarian agricultural products, support exports and develop international contacts between business operators in the sector.

#### **IV. SUPPORT OF THE AGRICULTURAL INDUSTRY**

##### **1. Support under the First Pillar of CAP**

##### **1.1. Area-Based Direct Payments, Transitional National Aid and Coupled Support**

Financial support through direct payments is provided by the EAGF and the NB. During the calendar year 2021, funds for direct payments were authorized for the 2020 and 2021 campaigns.

##### **2020 campaign**

**Table IV.1. Authorized funds for the 2020 campaign in 2021**

Scheme	Number of valid applications submitted	Number of applications with authorized payments	Budget allocation by source (%)		Authorized amount (BGN)
			EAGF	NB	
SAPS	54,984	182	100	-	88,877,198
GDP	54,984	54,933	100	-	489,215,169
SRP	54,912	54,861	100	-	113,435,375
YFS	3,729	3,724	100	-	2,995,640
SSF	2,806	2,806	100	-	2,466,201

Scheme	Number of valid applications submitted	Number of applications with authorized payments	Budget allocation by source (%)		Authorized amount (BGN)
			EAGF	NB	
SDC	3,541	347	100	-	1,733,225
SSCc-milk	931	35	100	-	1,079,021
SDC-MA	317	57	100	-	91,959
SMKH	5,003	500	100	-	1,329,609
SSCc-meat	443	24	100	-	158,352
Buffaloes	263	46	100	-	447,342
SSC	2,085	136	100	-	1,161,432
SMR	2,083	379	100	-	591,144
SF (main)	5,611	5,605	100	-	34,117,014
SF (other)	3,153	3,144	100	-	7,635,966
SV (main)	3,047	3,023	100	-	17,710,372
CV-CCWM	2,769	2,766	100	-	6,656,339
CV-TCGE	1,860	1,858	100	-	4,404,988
SV-P	1,291	1,291	100	-	4,797,415
SVg	1,019	1,018	100	-	9,599,974
SPC	16,143	16,134	100	-	32,749,049
Cotton	119	119	100	-	3,882,571
TMSA1	4,146	22	-	100	14,521,035
TMSA3	6,329	389	-	100	830,420
TNT	39,765	39,754	-	100	71,303,228
Financial discipline	n/a	n/a	100	-	19,221,325
<b>TOTAL</b>					<b>931,011,363</b>

Source: SFA-PA

### The 2021 campaign

During the 2021 campaign, farmers were supported under the following direct payment schemes, financed by European and national funds:

#### Direct payment schemes

- Single area payment scheme;
- Payment scheme for climate and environmentally friendly agricultural practices - green direct payments;
- Redistributive payment scheme;
- Young farmers scheme;
- Scheme for small farmers;
- Coupled support scheme for dairy cows;
- Coupled support scheme for dairy cows under selection control;
- Coupled support scheme for dairy cows in mountain areas;

- Coupled support scheme for beef cows and/or heifers;
- Coupled support scheme for beef cows under selection control;
- Coupled support scheme for ewes and does in mountain areas;
- Coupled support scheme for ewes and does under selection control;
- Coupled support scheme for buffaloes;
- Coupled support scheme for fruit;
- Coupled support scheme for fruit (plums and table grapes);
- Coupled support scheme for vegetables (tomatoes, cucumbers, gherkins and eggplants);
- Coupled support scheme for vegetables (pepper);
- Coupled support scheme for vegetables (potatoes, onions and garlic);
- Coupled support scheme for vegetables (carrots, cabbage, watermelons and melons);
- Coupled support scheme for greenhouse vegetables;
- Coupled support scheme for protein crops;
- Specific support for cotton;
- Transitional national aid scheme for tobacco, uncoupled with production;
- Transitional national support scheme for cattle and buffaloes, uncoupled with production;
- Transitional National Coupled Support Scheme for Ewes and Does.

A total of 99,549 applications have been accepted for the 2021 campaign, of which 60,500 have claimed areas.

The authorization of funds for the 2021 campaign started in October 2020 with the payment of subsidies under the transitional national support schemes in livestock breeding. In December of the same year, payments were made under the coupled production schemes in the Livestock sector and under the single area payment scheme financed by the EAGF.

**Table IV.2. Authorized funds for the 2021 campaign in 2021**

Scheme	Number of valid applications submitted	Number of applications with authorized payments	Budget allocation by source (%)		Authorized amount (BGN)
			EAGF	NB	
SAPS	54,154	54,067	100	-	642,793,900
SDC	3,239	3,230	100	-	27,396,521
SMKH	4,776	4,753	100	-	17,681,975
SDC-MA	326	325	100	-	827,599
SSCc-milk	921	916	100	-	35,231,025
SSCc-meat	488	481	100	-	3,101,210
Buffaloes	256	254	100	-	4,170,732
SMR	1,962	1,957	100	-	3,199,600
SSC	2,069	2,061	100	-	23,067,049
TMSA1	3,763	3,729	-	100	18,673,818
TMSA3	5,569	5,227	-	100	13,847,372
<b>TOTAL</b>					<b>789,990,801</b>

Source: SFA-PA

## **Area-based support schemes (hectare)**

The single area payment scheme was applied with a minimum eligible farm size of 0.5 ha and a minimum parcel size of 0.1 ha. As a tool for overcoming the structural imbalance, the reduction of SAPS payments for amounts over EUR 150,000 was made, taking into account employment on farms by deducting the costs of agricultural work remuneration before the reductions in payments. For the 2021 campaign, 56,425 applications for funding were submitted. As of 30.06.2022, the total amount of authorized funds is BGN 715,599,618, with payment per unit area of BGN 193.44/ha. The budget for the campaign amounts to BGN 735,899,087.

The payment scheme for agricultural practices that are favorable for the climate and the environment (green direct payments) has been in force since 2015. Farmers eligible for SAPS payment must follow practices for crop diversification, preservation of permanently grassed areas and maintaining of ecologically oriented areas within all their hectares, depending on the structure of the agricultural holding, its size and the cultivated crops. 56,425 farmers applied for the 2021 campaign under the scheme with a budget of BGN 462,718,810. As of the end of June 2022, payments in the amount of BGN 452,108,016 (97.7% of the budget) were authorized with funding for 121.63 BGN/ha.

The redistributive payment scheme is aimed at supporting economically more vulnerable small and medium-sized farms. It provides a higher payment per hectare for the first 30 hectares of each holding eligible for support under the SAPS. For the 2021 campaign, the scheme had a budget of BGN 108,277,000 and there were support applications by 56,353 farmers. As of June 30, 2022, payments in the amount of BGN 105,014,227 or 97% of the budget have been authorized. The rate per unit area set was BGN 137.74/ha.

Farmers who were not more than 40 years old in 2021 and had started farming in the last 5 years, for the 2021 campaign received a 50% increased payment of the SAPS payment for the first 30 ha under the Young Farmers Scheme. Applications for support were submitted by 3,768 young farmers. The funds authorized as of 30 June 2022 amounted to BGN 2,518,479.

During the 2021 campaign, 2,253 beneficiaries continue to participate under the Small Farmers Scheme. By the end of June 2022, BGN 627,477 were authorized under it. Support for small farmers replaced all payments under direct payment schemes. The financial support is set up annually and individually for each individual beneficiary, depending on the size of eligible areas, the number of eligible animals and the applied schemes, and may not exceed EUR 1,250.

## **Coupled support schemes**

### *Coupled Support Scheme for Dairy Cows*

The scheme, with a budget of BGN 28,842,022 for the 2021 campaign, is aimed at supporting farms in the dairy sector to maintain the level of milk produced. Applications for the campaign were submitted by 3,243 farmers. The set support rate is 352.19 BGN a head up to the 50th animal and 281.75 BGN/head over the 50th animal. As of 30 June 2022, BGN 27,590,520 were authorized under the scheme - 95.7% of the budget.

### *Coupled Support Scheme for dairy cows under selection control*

921 farmers applied for the 2021 campaign under this scheme. The set support rates are BGN 520.66 per head up to the 50th admissible animal and BGN 416.53 per head over the 50th animal. From the budget, amounting to BGN 36,807,035, BGN 35,441,097 has been authorized until the end of June 2022 (96.3% used).

### *Coupled Support Scheme for Dairy Cows in Mountain Areas*

The budget of the scheme for the 2021 campaign amounted to BGN 840,994. 327 farmers applied for funding under it. At a rate of BGN 359.55 per head, a total of BGN 829,699 or 98.7% of the budget has been authorized until the end of June 2022.

### *Coupled support scheme for beef cows and/or heifers*

The scheme has an annual budget of BGN 18,749,713. 4,790 farmers applied for participation for the 2021 campaign. The set support rate is BGN 154.51 per head up to the 50th animal and BGN 123.61 per head

over the 50th animal. As of 30 June 2022, BGN 17,896,381 were authorized under the scheme, which is 95.4% of the budget.

*Coupled support scheme for beef cows under selection control*

For the 2021 campaign, the budget of the scheme amounts to BGN 3,249,951. 488 applications for funding were submitted. The funds authorized as of 30.06.2022 amount to BGN 3,154,402 (97.1% of the budget), at a rate of BGN 131.33 per head for the 50th animal and BGN 105.06 per head over the 50th permissible animal.

*Coupled support scheme for ewes and/or she-goats in mountain areas*

Under this scheme, farmers who raise from 10 to 49 ewes and/or does are funded, in order for the level of production in this category of farms to be kept the same. The budget for scheme for the 2021 campaign is BGN 3,284,950, and 1,979 farmers have applied for participation. The set rate is BGN 59.55 per head. By the end of June 2022, payments for the total amount of BGN 3,221,577 (98.1% of the annual budget) have been authorized.

*Coupled support scheme for ewes and or she-goats under selection control*

The scheme aims to fund farmers who breed 50 or more ewes under selection control of one breed and/or 20 or more she-goats under selection control of one breed. The budget under the scheme for 2021 amounted to BGN 24,004,232. Applications for funding were submitted by 2,070 farmers. The set funding rate is BGN 73.03 per head up to the 200th animal and BGN 58.42 per head over the 200th animal. As of 30 June 2022, a total resource amounting to BGN 23,141,390 was authorized under the scheme, which represents 96.4% of the annual budget.

*Coupled support scheme for buffaloes*

The financial support is aimed at farmers who rear 10 or more buffaloes. Under the scheme, with a budget of BGN 4,424,442 for 2021, 256 farmers have applied. The set rate is BGN 420.24 per head up to the 50th admissible animal and BGN 336.19 per head over the 50th animal. The authorized funds until the end of June 2022 amount to BGN 4,222,211 or 95.4% of the total budget.

*Coupled support scheme for fruits (main group)*

5,862 farmers applied for the 2021 campaign under the scheme. The set budget amounted to BGN 31,515,603, and the rate was BGN 1,809.96/ha for areas up to 30 ha and BGN 1,206.64/ha for areas over 30 ha. As of 30 June 2022, the authorized funds amounted to BGN 30,600,510 or 97.1% of the budget.

*Coupled support scheme for fruit (others) - plums and table grapes*

The budget set for 2021 is BGN 7,096,882, and the authorized funds as of the end of July 2022 amount to BGN 6,894,063, or an utilization rate of 97.1% has been achieved. 3,400 beneficiaries applied for the scheme. The rate for a unit area is 928.47 BGN/ha for the first 30 ha and 618.98 BGN/ha for areas over 30 ha.

*Coupled support scheme for vegetables (tomatoes, cucumbers, gherkins and eggplants)*

Under the scheme, with an annual budget of BGN 4,693,697, applications for funding under the 2021 campaign were submitted by 1,727 farmers. As of 30.06.2022, 95.5% of the budget have been used with 4,482,063 BGN authorized and a rate of 2180.73 BGN/ha for areas up to 30 ha and 1453.82 BGN/ha for areas over 30 ha.

*Coupled support for vegetables (pepper)*

1,237 farmers applied for support for the 2021 campaign. The set budget amounted to BGN 4,573,200, and the set rate is BGN 2,366.82/ha for the first 30 ha and 1,577.88 BGN/ha for areas over 30 ha. As of the end of June 2022, funds in the amount of BGN 4,351,009 (95.1% of the budget) were authorized.

#### *Coupled support for vegetables (potatoes, onions and garlic)*

2,907 farmers applied for the scheme under the 2021 campaign. As of the end of June 2022, the annual budget, in the amount of BGN 16,815,358, has been used at 97.1%. The authorized payments amount to BGN 16,322,602, at a rate of 1,680.12 BGN/ha for areas up to 30 ha and 1,120.08 BGN/ha for areas over 30 ha.

#### *Coupled support scheme for vegetables (carrots, cabbage, watermelons and melons)*

The annual budget of the scheme for 2021 is BGN 6,426,070. 2,869 farmers applied to participate. At a rate of 899.64 BGN/ha for the first 30 ha and 599.76 BGN/ha for areas over 30 ha, funds in the amount of BGN 6,133,201 (95.4% of the budget) have been authorized as of June 30, 2022.

#### *Coupled support scheme for greenhouse vegetables*

Due to the specific nature of greenhouse production, areas with a minimum farm size of 0.5 ha are eligible for funding, which can be combined with field and greenhouse production. 1,135 farmers applied for the 2021 campaign under the scheme with a budget of BGN 8,546,875. As of the end of June 2022, payments in the amount of BGN 8,212,821 (96.1% of the budget) were authorized with funding for 13,050.46 BGN/ha.

#### *Coupled support for protein crops*

The scheme aims, on the one hand, to indirectly fund animal breeders, by promoting the production of protein crops for feed, and on the other hand, contributes to the fulfillment of the requirements for maintaining ecologically oriented areas, as part of the green requirements. 16,303 farmers applied for support for the 2021 campaign. As of 30 June 2022, BGN 30,880,649 have been authorized from the annual budget in the amount of 31,488,380 BGN (98.1% utilization rate). The rate per unit area set was 238.35 BGN/ha.

#### *Specific payment for cotton*

Cotton was supported through a stand-alone scheme with a specific budget. For the 2021 campaign, 77 farmers submitted an application for assistance, to whom BGN 3,746,324 or 73.5% of the set annual budget of BGN 5,093,987 were paid in the first six months of 2022.

### **Transitional national aid**

In 2021, the implementation of the nationally funded transitional national aid schemes for cattle, buffaloes, ewes and does, and tobacco continued, under the conditions of the national co-payment schemes implemented in 2013.

#### *Transitional national aid for tobacco*

For the 2021 campaign, 38,804 farmers applied for support for tobacco delivered during the reference years. As of June 30, 2022, the authorized funds amounted to BGN 70,241,739.

#### *Transitional national aid for cattle and buffaloes (decoupled)*

The budget of the scheme for 2021 amounted to BGN 32,064,360. 3,746 farmers applied for funding. The set rate for cattle was 183.28 BGN/head, and for buffaloes it was 320.74 BGN/head. As of the end of June 2022, funds in the amount of BGN 31,920,555 (99.6% of the budget) were authorized.

#### *Transitional national aid for ewes and/or she-goats (coupled)*

Under the scheme, with a budget of BGN 26,828,690 for the 2021 campaign, 5,582 farmers have applied. The support rate was BGN 41.07/head. The funds authorized as of 30 June 2022 amount to BGN 23,034,491 or 85.9% of the allocated budget.



**Table IV.3. Amount of assistance under direct payment schemes and transitional national assistance and utilization of their budgets for the 2021 campaign**

Scheme	Budget for the 2021 campaign (BGN)	Number of valid applications submitted	Rate for 2021 campaign (BGN/ha, BGN/head)		Authorized funds for the 2021 campaign (BGN)	Budget utilization (%)
			up to (ha/piece)	over (ha/no.)		
SAPS	735,899,087	56,425	193.44		715,599,618	97.2%
GDP	462,718,810	56,425	121.63		452,108,016	97.7%
SRP	108,277,000	56,353	137.74		105,014,227	97.0%
YFS		3,768	96.72		2,518,479	
SSF		2,253	N/A		627,477	
SDC	28,842,022	3,243	352.19	281.75	27,590,520	95.7%
SSCc - milk	36,807,035	921	520.66	416.53	35,441,097	96.3%
SMLU- MR	840,994	327	359.55		829,699	98.7%
SMKH	18,749,713	4,790	154.51	123.61	17,896,381	95.4%
SSCc-meat	3,249,951	488	131.33	105.06	3,154,402	97.1%
SMR - MR	3,284,950	1,979	59.55		3,221,577	98.1%
SSC	24,004,232	2,070	73.03	58.42	23,141,390	96.4%
Buffaloes	4,424,442	256	420.24	336.19	4,222,211	95.4%
SP - main	31,515,603	5,862	1,809.96	1,206.64	30,600,510	97.1%
SP - others	7,096,882	3,400	928.47	618.98	6,894,063	97.1%
SV – TCGE	4,693,697	1,727	2,180.73	1,453.82	4,482,063	95.5%
SV - P	4,573,200	1,237	2,366.82	1,577.88	4,351,009	95.1%
SV – POG	16,815,358	2,907	1,680.12	1,120.08	16,322,602	97.1%
SV – CCWM	6,426,070	2,869	899.64	599.76	6,133,201	95.4%
SVg	8,546,875	1,135	13,050.46		8,212,821	96.1%
SPC	31,488,380	16,303	238.35		30,880,649	98.1%
Cotton	5,093,987	77			3,746,324	73.5%
TNT		38,804			70,241,739	
TMSA1	32,064,360	3,746	183.28	320.74	31,920,555	99.6%
TMSA3	26,828,690	5,582	41.07		23,034,491	85.9%
<b>Total</b>					<b>1,628,185,121</b>	

**Source:** Direct Payments Directorate, Ministry of Agriculture

\*Data as of 30 June 2022

## The 2022 campaign

**Table IV.4. Declared data for the 2022 campaign**

Scheme	Number of applications	Declared areas (ha)/ number of animals
Single area payment scheme	54,465	3,835,356
Green direct payments	54,465	3,835,356
Redistributive payment scheme	54,383	785,969
Young farmers	3,221	50,443
Small farmers	1,847	3,158
Coupled support for dairy cows	2,932	88,194
Coupled support for dairy cows under selection control	895	82,188
Coupled support for dairy cows in mountain areas	340	2,677
Coupled support for beef cows and/or heifers	4,552	133,947
Coupled support for beef cows under selection control	515	30,475
Coupled support for ewes and/or does in mountain areas	1,792	53,041
Coupled support for ewes and/or does under selection control	2,079	351,531
Coupled support for buffalo	256	13,480
Coupled support for fruit (main group)	5,776	20,713
Coupled support for fruit (other)	3,404	9,386
Coupled support for vegetables - greenhouse production	2,439	10,136
Coupled support for vegetables (carrots, cabbage, watermelons and melons)	2,710	6,593
Coupled support for vegetables (tomatoes, cucumbers, gherkins and eggplant)	1,552	2,644
Coupled support for vegetables (pepper)	1,096	1,936
Coupled support for vegetables - greenhouse production	1,114	803
Coupled support for protein crops	15,477	128,178
Specific support for cotton	56	1,572
Transitional national aid for ewes and/or does, coupled	5,105	550,827
Transitional national aid for cattle	3,412	160,442
Transitional national aid for buffaloes	67	3,227
Transitional national aid for tobacco	38,218	n.a.

Source: SFA-PA

## **1.2. Market support mechanisms**

### **1.2.1. Milk sector**

#### **Contractual relations in the milk sector**

Contractual relations in the milk sector, the terms and conditions for the recognition of producer organizations, their associations and interbranch organizations in the milk and milk products sector, are regulated by Ordinance No. 1 of 28.01.2015.

The purpose of the regime is to ensure the sustainable development of raw milk production of all types, improve the possibilities of milk producers to negotiate with buyers and fairer distribution of added value along the supply chain.

The legislation allows milk producers' organizations or their associations to jointly negotiate with a raw milk buyer the terms of contracts, including price, for part or all of the raw milk of their members.

In 2021, 252 inspections of manufacturers and 200 of purchasers were performed. 37 CEAVs were issued, the criminal proceedings on which resulted in the issuance of 31 penal rulings. The amounts imposed under the NP are property sanctions, amounting to BGN 94,000 and fines for the amount of BGN 2,000. By the end of December 2021, BGN 14,500 were paid voluntarily.

More than 1,312 applications were accepted and processed under the scheme, relating to 6,651 contracts between producers and first buyers of raw cow, sheep, goat and buffalo milk. 77 applications for the registration of contracts have been received electronically in the ESS of SFA-PA.

### **1.2.2. Fruit and Vegetable Sector**

#### **Producer organization scheme**

##### ***Producer organizations in the fruit and vegetables sector;***

The scheme supports the implementation of operational programs, including investments for the modernizing the holdings of members of the producer organizations, environmental costs, crisis prevention and management measures and administrative costs aimed at supporting the activities of the organizations.

In order to receive financial support, the organization of fruit and vegetable producers shall be recognized by the Ministry of Agriculture, it shall prepare and submit for approval an operational program lasting up to 3 years and to establish an operational fund.

In 2021, four producer organizations put in place operational programs with a total value of approved costs amounting to BGN 6,284,572.

The investments, costs, and activities agreed for implementation in 2021 are for the total amount of BGN 2,048,043. Throughout the year, financial assistance amounting to BGN 846,684 was paid, BGN 246,199 of which from the EAGF and BGN 600,485 from the NB.

One new operational program with an implementation period of 2022-2024 was submitted for approval, and for the applying producer organization this was the second operational program. Both programs of this organization envisage the implementation of investments, costs and activities in the total amount of BGN 2,294,127. The agreed financial aid for 3 years amounted to a total of BGN 999,119, of which BGN 290,524 from the EAGF and BGN 708,595 from the NB.

In 2021, two of the organizations have completed the implementation of their operational programs. The expected value of the financial aid, which will be paid by the end of 2022 for implemented investments, costs and activities in 2021 is BGN 572,529, including: BGN 166,480 from the EAGF and BGN 406,049 from the NB.

##### ***Producer organizations and groups in other sectors***

As of the end of 2021, the total number of recognized organizations and groups of producers of agricultural products was 46, of which: 2 PGs in the Cereals sector, 1 PG in the Potatoes sector, 2 PGs in the Meat sector, 10 PGs in the Milk sector, 1 PG in the Fruits sector, 3 PGs in the Medicinal and essential oils sector,

6 POs in the Fruits and vegetables sector, 6 POs in the Fruit sector, 4 OPs in the Vegetables sector, 1 POs in the Wine grapes sector, 4 POs in the Honey and bee products sector, 3 POs in the Milk sector and dairy products', 1 PO in the Meat and Wool sector and 2 POs in the Cereals and Oilseeds sector.

The largest number of associations was set up in the Fruit and vegetable sector - 16 POs and 1 PG, followed by those in the livestock sector (milk, dairy products and meat) - 4 POs and 12 GPs. In terms of the number of representatives of agricultural producers with the highest degree of association, the Livestock sector stood out (Milk and Dairy subproducts - 227 farmers participating in 10 GPs and 3 POs; Meat and wool subsector - 136 farmers included in 2 GPs and 1 PO), followed by the Fruits and vegetables sector, in which 127 farmers were united in associations.

### ***Producer Groups***

In 2021, BGN 62,949 was paid to a group of fruit and vegetable producers.

### **Scheme to supply fruits, vegetables, milk and dairy products to kindergartens and schools in Bulgaria (School Fruit Scheme and School Milk Scheme)**

The scheme aims to create healthy eating habits for children and students by making regular deliveries to institutions in the preschool and school education system. The aid is intended for children regularly attending kindergarten and school throughout the country and it covers children from 1st to 4th group in kindergartens and pupils from preschool to 4th grade. Deliveries of fruit, vegetables, milk and dairy are made only during school days. Financial aid is provided for supply of products accompanying educational measures and monitoring, evaluation and publicity.

#### *2020/2021 academic year*

Under the School Fruit scheme, deliveries of fruit and vegetables were made by 112 approved applicants. Products under the scheme were received by 430,513 children in 3,362 institutions in the preschool and school education system. The total budget under the scheme for the school year, which also covers costs for accompanying measures and information activities, amounted to BGN 13,595,619, of which BGN 5,011,201 - from the EU and BGN 8,584,418 from NB. 98.7% of the established annual budget has been used.

Under the School Milk scheme, supplies of milk and milk products were made by 97 approved applicants. Products under the scheme were received by 433,889 children in 3,443 institutions in the preschool and school education system. The total annual budget under the scheme amounts to BGN 16,268,242, of which BGN 2,241,094 from the EU and BGN 13,601,639 from the NB, and has been almost fully utilized.

#### *2021/2022 academic year*

The EU budget for the implementation of school schemes in the 2021/2022 school year amounted to BGN 4,196,595 under the School Fruit Scheme and BGN 1,995,798 under the School Milk Scheme. The national co-financing in both directions is in the amount of BGN 8,584,286 and BGN 13,601,639, respectively. The aid covers costs for the supply of the products accompanying educational measures and monitoring, evaluation and publicity activities.

Under the School Milk scheme, 101 applicants were approved for the supply of products to 3,411 institutions in the preschool and school education system, including 428,154 children and students. Under the School Fruit scheme, 111 applicants have been approved for 3,407 institutions in the system of preschool and school education, in which 428,268 children and students are covered.

Despite the continuing second year in a row of an extraordinary epidemic situation and the holding of a large part of the classes in a distance form of learning, the scheme for offering fruit, vegetables, milk and dairy products in schools and kindergartens is successfully implemented with the participation of over 95% of the children and students, and when more than 98% of the planned budget is used.

In order to reduce the applicants' losses, an extraordinary measure was introduced in 2021, allowing perishable products (fruits, vegetables and dairy products) intended for distribution in schools participating in the scheme, to be provided free of charge to centers for social assistance and to the Bulgarian Red Cross.

## Temporary Emergency Measures Scheme

In 2021, there were no calls under the Temporary Emergency Measures scheme in the fruit and vegetable sector

### 1.2.3. Beekeeping sector

The support in the sector was provided through the National Beekeeping Program, prepared in cooperation with the beekeeping organizations, in accordance with the requirements of Regulation 1308/2013. Decision (EU) 2019/974 dated 12.06.2019 approved the national beekeeping programs of the member states and determined the amount of the EU's participation in the programs for the period 2020-2022. In addition to the European financing, the provision of funds from the national budget up to the same amount is permissible. The available budget for Bulgaria under the NBP for the period 2020-2022 amounts to BGN 19,199,412 (5 million BGN more than the previous three-year period), including BGN 6,399,307 for 2020, BGN 6,400,203 for 2021, and BGN 6,399,902 for 2022.

With Implementation Decision (EU) 2021/974 of the European Commission of 9 June 2021, an additional budget has been provided for the beekeeping years 2021 and 2022. As a result, the available funds for Bulgarian beekeepers have been increased by BGN 3,346,000, BGN 1,673,000 for each of the two years. Thus, the total amount of support for Bulgaria under the NBP reaches BGN 8 million for 2021 and 2022. The funds are provided by the EU and the national budget (50% each) and represent the largest financial resource allocated under the Program for the entire period of its implementation (2008 - 2021).

The interest of beekeepers in the measures of the NBP is traditionally high. 1,976 applications for support were submitted in 2021. 1,892 contracts for funding were concluded.

For 2021, a resource is planned for the implementation of new measures and activities aimed at beekeeping associations. They cover carrying out various studies: for resistance of the causative agent to preparations to combat varroasis; for presence of nosematosis and its spread on the territory of the country; of samples of the food supplies of the bee colonies for residual amounts of pesticide substances above the limit values. There are also three new topics under the measure for applied research programs in the field of beekeeping and bee products, intended for beekeeping associations, universities, scientific institutes and scientific organizations.

Due to lack of interest from the mentioned organizations, the planned resource has been redistributed to the other measures and activities under the NBP, for which a higher interest has been established.

In order to support the implementation of investments, the Bulgarian beekeepers can use the credit scheme of the Agriculture State Fund, which provides low-interest loans to finance measures and activities under the NBP under preferential terms. In 2021, loans were granted to over 220 beekeepers, with a total value of over BGN 1 million.

**Table IV.5. Budget and paid financial aid under the NBP for 2021, BGN**

Measure / activity	Budget	Paid financial aid	Budget utilization (%)
<b>Measure A - Technical assistance - total</b>	<b>3,488,196</b>	<b>3,134,321</b>	<b>89.9%</b>
Activity 1 - Support for the purchase of technical equipment for the primary extraction and processing of bee products	3,476,532	3,126,868	89.9%
Activity 2 - Exchange of knowledge and good technological practices for beekeeping	5,661	5,240	92.6%
Activity 3 - Promotion of Bulgarian bee products by organizing bazaars in which local beekeepers participate	6,003	2,213	36.9%
<b>Measure B - Fight against aggressors and diseases in the hive, especially against varroasis - total</b>	<b>974,953</b>	<b>492,782</b>	<b>50.5%</b>

Measure / activity	Budget	Paid financial aid	Budget utilization (%)
Activity 1 - Purchase of VMPs against varroasis	974,953	492,782	50.5%
Activity 2 - Testing for the resistance of the Varroa destructor to VMPs authorized for use to combat varroasis	0	0	n.a.
Activity 3 - Study of bee colonies for the presence of nosematosis and its spreading in the country	0	0	n.a.
<b>Measure C - Rationalization of mobile beekeeping - total</b>	<b>221,576</b>	<b>108,720</b>	<b>49.1%</b>
Activity 1 - Support for the purchase of new attachment equipment mobile beekeeping	21,296	18,080	84.9%
Activity 2 - Reimbursement of mobile beekeeping costs in terms of the movement of bee colonies	200,280	90,640	45.3%
<b>Measure D - Measures to support laboratories for analysis of bee products - total</b>	<b>66,265</b>	<b>44,120</b>	<b>66.6%</b>
Activity 1 - PCA of honey	66,265	44,120	66.6%
Activity 2 - Examination of food samples of bee colonies /honey, pollen/ for residual amounts of pesticides above the limit values	0	0	n.a.
<b>Measure E - Measures to support the renewal of beehives in the EU - total</b>	<b>3,322,102</b>	<b>2,767,407</b>	<b>83.3%</b>
Activity 1 - Purchase of new hives	1,612,332	1,422,492	88.2%
Activity 2 - Purchase of nucleus colonies	915,450	706,200	77.1%
Activity 3 - Purchase of queen bees	794,320	638,715	80.4%
<b>Measure E - cooperation with specialized bodies for the implementation of research programs in the beekeeping and bee products sectors - total</b>	<b>0</b>	<b>0</b>	<b>n.a.</b>
<b>TOTAL</b>	<b>8,073,093</b>	<b>6,547,349</b>	<b>81.1%</b>

Source: IACS, module National Beekeeping Program - Call '2021

#### 1.2.4. Wine sector

In 2021, the National Program for Support of the Viticultural Sector 2019-2023 includes the following seven financial support measures:

- Measure "Restructuring and conversion of vineyards", with a budget of BGN 14,279,757;
- Measure "Promotion in third countries", with a budget of BGN 171,496;
- Measure "Investments in enterprises", with a budget of BGN 15,392,525;
- Measure "Harvest Insurance", with a budget of BGN 300,000;
- Measure "Crisis storage of wine", with a budget of BGN 15,000,000;
- Measure "Green Harvesting", with a budget of BGN 2,000,000;
- Measure "Information in the Member States" with a budget of BGN 3,161,354.

The measures are financed by the European Agricultural Guarantee Fund, and state aid is provided under the "Promotion in third countries" and "Information in the Member States" measures.

Under the "Restructuring and conversion of vineyards" measure, there were two calls for applications for financial assistance, within which 104 contracts were concluded. The disbursed funds for the calendar year 2021 are BGN 16,376,329.

Under the "Investments in enterprises" measure, there was one call with 38 projects agreed upon. For the calendar year 2021, payments were made in the amount of BGN 10,629,710.

No project proposals were received in 2021 under the "Promotion in third countries" measure. Funds were paid for a project agreed in previous years in the amount of BGN 82,318, of which BGN 27,439 is state aid.

Under the "Harvest Insurance" measure, one reception was held and 49 support contracts were concluded. The disbursed funds for the calendar year 2021 amount to BGN 292,881.

Under the "Green Harvesting" measure, which is of a crisis nature, there was one call, with 12 contracts for financial assistance concluded. In 2021 its implementation was justified by the crisis caused by the COVID-19 pandemic. The measure is aimed at grape producers who find it difficult to find a market for their products, and the support is provided per hectare of green vineyards. The paid funds amounted to BGN 945,960.

Under the emergency measure "Crisis storage of wine" in 2021, there was one call. It aims at financial support for wine producers to store wine that, due to the difficult commercial processes in the conditions of the COVID-19 pandemic, cannot be marketed. 55 assistance contracts were concluded and funds in the amount of BGN 14,110,126 were paid.

Under the "Information in the Member States" measure, there was one call, with one project agreed upon. In the calendar year 2021, no payments were made under this measure.

For projects agreed by 15 October 2022, an increased amount of aid is applied under all measures of the Program, as follows:

- Measure "Restructuring and conversion of vineyards" - from 75% to 90% of the costs incurred;
- Under measures "Promotion of third country markets", "Investment in enterprises", "Harvest insurance" and "Green Harvesting" - from 50% to 70% of the costs incurred;
- According to the "Harvest insurance" measure - 80% of the costs incurred for insurance premiums.

#### **1.2.5. Public Intervention and Private Storage**

In the event of the regulatory market conditions, public intervention for regular and durum wheat, barley, corn and paddy rice, beef and veal, butter and skim powdered milk, meat, as well as private storage of products, may be opened by means of implementing acts of the European Commission. In 2021, there were no conditions for opening a public intervention and private storage of products.

The beginning of 2022 is characterized by extremely difficult market conditions for the pork sector due to the restrictions related to the containment of African swine fever and the increased production requirements in slaughterhouses in the conditions of the pandemic of COVID-19. The increase in pork on the European market led to a suppression of purchase prices while at the same time there was an increase in the costs of feed. The Russian invasion of Ukraine has caused further market disruptions due to hampered exports. In order to achieve a balance between supply and demand, the European Commission has taken measures to provide financial assistance by introducing exceptional support for the Pig farming sector with Implementing Regulation (EU) 2022/470 of 23 March 2022 on the provision of assistance to private storage of pork and for preliminary determination of its size. The aim of the scheme is to regulate average market prices in the European Union by restoring market equilibrium by temporarily withdrawing pork from the market. The scheme supports private storage of fresh or chilled pork that has not previously been stored and originates from animals slaughtered no earlier than 10 days before the day the meat enters storage. Quantities of at least 10 tonnes for deboned products and a minimum of 15 tonnes for other products described in the Annex to the Regulation are financed. The permissible storage period for pork and other products is between 60 and 150 days.

On 1 April 2022 the call for applications for assistance under the temporary emergency scheme for assistance for private storage of pork was opened. Five applications for the storage of fresh pork were accepted, with a total value of BGN 185,330. By the end of June 2022, two contracts were signed, with a total value of BGN 94,905.

#### **1.2.6. Sugar sector**

As of 1 October 2017, the production in the Sugar sector in EU has been liberalized and is not subject to a quota regime. Thus, from the 2017/2018 market year, there are no longer restrictions on the production of sugar from sugar beet, isoglucose and inulin syrup.

In 2021, one enterprise for the production of isoglucose and one sugar refinery will operate on the territory of Bulgaria.

Pursuant to Regulation No. 2017/1185 and Article 10a of the Law on the Implementation of the Common Organization of Agricultural Markets of the European Union, refineries submit notifications to the MA for prices and stocks of sugar, and isoglucose producers - notifications for isoglucose production.

#### **1.2.7. Promotional programs**

Promotional programs cover activities aimed at providing information about the presented product and facilitating its market offering. The programs may include organization of trainings, conferences with the participation of journalists and doctors, promotions in supermarkets and shops, tastings, advertising, organization of competitions, publications in the specialized press and the Internet, participation in exhibitions, fairs, national and international exhibitions.

The implementation of promotional programs contributes to increasing the market share and the demand of the products in the target countries, improves the image of products compared to other similar products, and at the same time increases the consumption of promoted products.

The rules for implementation of promotional programs after the reform from 2015 are set in Regulation (EU) 2015/1831 and Regulation (EU) 1144/2014. According to the European legislation, the selection of the 2021 programs, for which financial support is available, is made by the EU-Chafea Executive Agency for Consumers, Health, Agriculture and Food (CHAFEA) established for this purpose. For the 2021 Campaign, Bulgaria has no approved promotional program.

#### **1.2.8. Quality Policy - Protected Designations**

In 2021, the number of enterprises and producers producing products with PDO/PGI/FTST entered in the registers of Bulgarian products with protected names is 36.

The national procedure for processing the applications - specifications of the Bulgarian dairy products "Bulgarian yogurt" and "Bulgarian white brine cheese" applying for registration as protected designations of origin in the European Register of PDO and PGI has been completed. The European procedure for review and reflection of notes is underway. A European procedure is also being conducted in connection with an application for registration of Lukanka Troyanska FTST.

In 2021, the producers of the Strandzhanski Manno Honey PDO are faced with a new challenge - the forest vegetation in Strandzha is attacked by a new pest - *Corythucha arcuata*, which is an American insect common in Turkey. The state aid provided by the Ministry of Agriculture to cover the costs of certification provided an opportunity to preserve the market positions of the producers of the product.

In order to protect the interests of the Bulgarian producers from the Dobrudzha region, the Ministry of Health sent an objection to the EC in relation to the Dobrudzhanska Banitsa product, applying for registration as a PGI from Romania. Communication has been initiated with the EC and the Romanian side, aiming to reach a compromise between Bulgaria and Romania.

Work has begun on the preparation of a Program for local traditional and regional traditional products, and one of the measures included in it is assistance to producers of products with potential for protection according to European quality schemes.



In 2022, the national procedure for processing applications - specification for registration of Strandjanski Herbal Tea PDO, which was sent to the EC for review under the European procedure, ended.

The discussion of the parameters of the intervention "Promotion and support of quality schemes recognized by the Union or by the Member States, as well as their use by agricultural producers", part of the Strategic Plan for the development of agriculture and rural areas 2023-2027, continues.

The Ministry of Agriculture actively supports groups of producers - applicants for products with PDO/PGI/FTST with consultations and expert advice already at the stage of preparation for application, and after submission of applications provides active assistance and support in the preparation and design of the necessary documentation, the refinement of the texts of the application-specifications of the products, the search and selection of evidentiary and illustrative materials. Meetings, conferences and consultations are held both with producers who have submitted an application and with interested farmers wishing to apply for registration.

### **1.3. Trade mechanisms**

#### **1.3.1. Export licensing**

##### **Scheme Mandatory export licenses for agricultural products for the calendar year 2021**

For the calendar year 2021, 99 compulsory licenses were issued for the export of 4,063 tons of rice. The implementation of the mandatory licenses is secured by guarantees. 3 guarantees with a total value of BGN 7,629 were accepted and processed and 5 guarantees with a total value of BGN 4,426 were released. One fine was imposed in the amount of BGN 589.

From October 2021, the mandatory licensing regime for exports to third countries in the rice sector will no longer apply.

##### **Scheme Export licenses for dairy products to Canada and the USA for the calendar year 2021**

According to the Agreement between the European Community and Canada, signed in 1995, in order for the traders to benefit from the reduction of customs duties on imports of cheese and yellow cheese in Canada, an export license issued within the quota is mandatory. Canada's import quota system is a mechanism to protect domestic production and is a combination of two tools - quotas and import duties. For Bulgaria, the agreement entered into force after joining the EU on 01.01.2007. The export license for Canada gives the right to a reduced duty upon import of dairy products under code 0406, produced in a member state of the European Union.

As a result of the negotiations between the USA and the EU conducted within the framework of the World Trade Organization, an agreement was concluded, with which, from 2013, Bulgaria and Romania became part of the quota for imports into the USA of European cheese under code 0406 of the Combined Nomenclature, with a reduced duty.

In 2021, 79 licenses were issued for the export of milk and milk products within the quotas for the USA and Canada, including: 32 licenses for a total of 99.6 tons of cheese; 39 licenses for a total of 466.8 tons of cow's cheese and 8 licenses for a total of 70.6 tons of sheep's cheese.

#### **1.3.2. Import licensing of agricultural products from third countries**

Under European law, compulsory third-country agricultural import licenses are required for rice, hemp seed for sowing, hemp seed not intended for sowing, raw or decontaminated hemp and ethyl alcohol of agricultural origin.

The application of the licensing regime for the import of agricultural products from third countries within the framework of tariff quotas and preferential regimes covers the following groups of agricultural products: cereals, rice, sugar, olive oil and table olives, fresh and processed fruits and vegetables (garlic and canned mushrooms), beef and veal, pork, milk and dairy, eggs and egg albumin, and poultry meat.

In 2021, 243 applications were submitted for issuance of licenses for the import of agricultural products from third countries, including 8 for license extracts. 236 licenses were issued, of which 137 under tariff quotas and preferential regimes and 99 under general conditions.

The guarantees established in favor of the MA for fulfillment of the import obligation under the licenses issued in 2021 amounted to BGN 47,740,099. Guarantees in the total amount of BGN 47,505,521 were reimbursed to importers.

In 2021, 12 new companies of importers of agricultural products were entered in the MA register, reaching total of 508.

## **2. Support under the Second Pillar of CAP**

### **Rural Development Program 2014 - 2020**

The budget under the Rural Development Program for the period 2014-2020, after its 11th amendment in November 2021, had a total budget of BGN 7,423,093,032 (EUR 3,795,425,418) public funds, allocated among 17 measures and a Thematic sub-program for development of small farms.

As of 31.12.2021, the total amount of the authorized funds amounted to BGN 4,712,005,079 or 63.5% of the budget. The disbursed subsidies amount to BGN 3,810,414,704 of public funds, which represents 51.3% of the Program's budget.

A total of BGN 707,801,658 of public funds were disbursed in 2021 under the 2014-2020 RDP.

#### **Measure 1 "Knowledge transfer and information actions"**

##### ***Sub-measure 1.1. "Vocational training and skills acquisition" of measure 1 "Knowledge transfer and information actions"***

The support under Sub-measure 1.1. "Vocational training and skills acquisition" is aimed at increasing the knowledge and skills of farmers and foresters and employees on their farms, by achieving an appropriate level of technical and economic training and increasing the capacity for access to knowledge and information in the field of agriculture and forestry.

The first call under the sub-measure was open in the period 2019-2020. 79 project proposals were received, with a value of the requested subsidy of BGN 38,605,496.

As of 31.12.2021, 41 administrative contracts have been concluded, with a total of 299 approved activities and public expenditures in the amount of BGN 12,156,377.

Due to the extraordinary epidemiological situation in the country in 2021 and the related ban on conducting trainings, only five of the approved beneficiaries under sub-measure 1.1 have started the implementation of the activities in the first year of signing the administrative contracts for the provision of grants.

In 2021, no payments were made under the sub-measure.

#### **Measure 2 - Consulting Services, Farm Management and Farm Replacement Services**

##### ***Sub-measure 2.1 Assistance for Provision of Consultancy Services***

Sub-measure 2.1. is applied with two sub-measures: Sub-measure 2.1.1 Consultancy Services for Farmers and Forester Holders and Sub-measure 2.1.2 Consultancy Services for Small Farmers. For the period of application of the sub-measure 2.1 until 31.12.2021 the public resource paid under it amounted to BGN 18,760,989.

*Sub-measure 2.1.1 Consulting Services for Farmers and Foresters* is aimed at improving the economic and environmental performance of farms and their adaptation to climate change by providing advisory services to farmers, young farmers and foresters.

The implementation of the sub-measure started in 2015. During the first and second call, the National Agricultural Advisory Service was designated as the only beneficiary to provide consulting services to farmers, applicants under sub-measure 6.1 Start-up Aid for Young Farmers of the RDP 2014 - 2020.

The total paid public funds under sub-measure 2.1.1 as of 31.12.2021 are in the amount of BGN 3,237,461. In 2021, no payments were made under the sub-measure.

*Sub-measure 2.1.2. Consulting Services for Small Farms* aims to provide quick and easy access to high-quality consulting services for small farmers. With financial support under the sub-measure, the National Agricultural Advisory Service provided six basic completely free advisory packages to small farms, contributing both to their economic development and strengthening through modernization and technological renewal, and to improving farmers' awareness and knowledge of environment conservation, adapting to climate change and improving risk management.

The provision of consultancy packages under sub-measure 2.1.2 includes on-site visits, assessment and analysis of the condition of farm holdings, as well as soil sampling for agrochemical analysis and preparation of recommendations for fertilization where applicable.

The total paid public funds for the entire period of application of sub-measure 2.1.2 until 31.12.2021 are in the amount of BGN 15,523,528, of which BGN 2,546,290 in 2021.

### ***Sub-measure 2.2 "Establishment of Consultancy Services (TSP)"***

In 2021, project proposals were accepted under the sub-measure aimed at expanding the territorial scope of the National Agricultural Advisory Service through the creation of mobile municipal centers (offices) for advisory services, with a budget of BGN 11,734,800. The received project proposal from the NAAS envisages the creation and operation of 28 mobile municipal offices on the territory of the rural areas of the country. An administrative contract was concluded with the Office for the provision of a grant in the amount of BGN 10,411,883. All planned mobile municipal centers have been approved for financing.

## **Measure 4 "Investments in tangible assets"**

### ***Sub-measure 4.1 "Investment in agricultural holdings"***

The implementation of the sub-measure started in 2015, and the first call period was set before the official approval of the RDP 2014 - 2020. The second call for applications for support took place in 2016.

In 2020, a third call was conducted electronically through the UMIS 2020 system, which was targeted at farmers in the Livestock sector. A total of 647 project proposals were submitted, with a total value of the requested grant of BGN 147,713,780. At the end of 2021, the assessment at the administrative compliance and eligibility stage was finalized.

In 2021, the fourth call of project proposals was open, within which 1,868 applications with a total value of BGN 734,722,907 were received, which as of 31.12.2021 are in the process of consideration and evaluation.

From the beginning of the implementation of the sub-measure until the end of 2021, 1,288 contracts for financial assistance were concluded, with a total amount of the approved subsidy of BGN 658,995,883. The total public funds paid for sub-measure 4.1 "Investments in agricultural holdings" amount to BGN 563,745,329. The payments in 2021 amounted to BGN 83,315 377.

### ***Sub-measure 4.1.2: "Investments in agricultural holdings under a Thematic sub-program for development of small farms"***

The support under the sub-measure is aimed at improving the economic sustainability and results of small farms, through restructuring and development of the available material capacities, promoting the introduction of new processes and technologies to increase the quality of the produced products, protecting the components of the environment, complying with the standards of The European Union and the improvement of conditions in agricultural holdings.

At the first call in 2018, 123 project proposals were approved with a total value of the grant of BGN 3,627,924.

In 2020, a second procedure for the selection of projects was held, with 286 applications for assistance received, with a total value of BGN 4,090,767. The supported activities under the procedure are related to increasing energy efficiency and production of bioenergy for the needs of agricultural holdings, investments in machines, equipment and facilities for environmental protection, etc. As of the end of 2021, the projects are in the process of consideration and evaluation.

In 2021, payments in the amount of BGN 628,616 were made under sub-measure 4.1.2.

#### ***Sub-measure 4.2 "Investments in processing/marketing of agricultural products"***

The first two calls under the sub-measure were open in 2015 and 2018. In the period September 2021 - March 2022, a third call of project proposals was carried out where 523 applications for support were received with a total value of BGN 653 656 994.

For the period of application of the sub-measure until 31.12.2021, 379 contracts for financial assistance were concluded, with a total of approved public expenditures in the amount of BGN 452,305,633. The total public funds paid, including advance, interim and/or final payments, amount to BGN 249,920,857, of which BGN 40,088,339 were paid in 2021.

#### ***Sub-measure 4.2.2 "Investments in processing/marketing of agricultural products under the thematic sub-programme for the development of small farms"***

In 2019, a call was opened under the sub-measure, with a budget of BGN 3,295,760. 5 project proposals were received, with a total value of the requested grant of BGN 383,603, for which, after completion of the work of the evaluation committee, refusal decisions were issued.

### **Measure 5 "Restoration of agricultural production potential damaged by natural disasters and introduction of appropriate preventive measures"**

#### ***Sub-measure 5.1 "Support for investment in preventive measures aimed at mitigating the effects of likely natural disasters, adverse climatic events and catastrophic events"***

In 2020, a procedure for accepting project proposals was announced, with a budget of BGN 45,905,931. Within this budget, a guaranteed financial resource in the amount of BGN 9,387,840 has been provided for candidates - public entities.

At that call 46 projects were received (43 from private and 3 from public entities) with a total value of the requested grant of BGN 33,346,718. 30 contracts were concluded with private entities, with a grant amounting to BGN 10,419,875. Three contracts with public entities were also signed, with an approved subsidy in the amount of BGN 7,317,221.

In 2021, two procedures for the selection of projects under the sub-measure were carried out, one for public and one for private entities. A total of 24 project proposals have been received, which are in the process of consideration with requested financial assistance in the total amount of BGN 9,209,818.

For the period of its implementation until the end of 2021, no payments were made under sub-measure 5.1.

#### ***Sub-measure 5.2 "Investments to restore the potential of agricultural land and agricultural production potential affected by natural disasters, adverse climatic events and catastrophic events"***

In 2020, a call under the sub-measure in UMIS 2020 has been announced. The support is aimed at restoring production potential disrupted by acute infectious diseases in pigs, small ruminants (sheep and goats) and poultry.

The total amount of the budget under the call is BGN 15,646,400. 3 project proposals have been received with a requested grant amounting to BGN 1,903,600. Eligible for support are costs for the purchase of animals intended to restore the population in the livestock facility and general costs related to consulting services for project preparation.

In 2021, the projects were in the process of review and evaluation.

### **Measure 6 "Development of farms and enterprises"**

#### ***Sub-measure 6.1 "Start-up aid for young farmers"***

For the period 2015-2020, there were two calls for support applications under the sub-measure. 4,561 project proposals were submitted for review with a total amount of the requested subsidy of BGN 221,770,792.

As of the end of 2021, the contracts concluded under the two calls were 2,143 with a total amount of approved public funds of BGN 104,781,985.

In 2021, under the sub-measure, a third call was opened with a deadline for the submission of project proposals until the end of February 2022. 218 applications for assistance from young farmers with a total value of BGN 10,845,889 were received, which in 2022 were under review and evaluation.

The total funds paid for the period of application of the sub-measure until 31.12.2021 are in the amount of BGN 130,876,471 (the amount also includes funds paid for the continued implementation of commitments from the 2007-2013 program period). The payments in 2021 amount to BGN 13,635,253.

### ***Sub-measure 6.3 "Starting Aid for Development of Small Farms"***

In the period 2016-2021, there were four calls under the sub-measure as 6,488 project proposals were received with a total requested subsidy of BGN 190,215,519. As of 31.12.2021, 3,400 financial aid contracts were concluded, with agreed public expenditures in the amount of BGN 99,745,800. The total disbursed funds amount to BGN 105,027,909 (the amount also includes funds paid for continued fulfillment of commitments from the 2007-2013 program period). In 2021, payments in the amount of BGN 33,496,090 were made.

### ***Sub-measure 6.4.1 "Investments in support of non-agricultural activities"***

The purpose of the support under sub-measure 6.4.1 is to promote employment, create new and preserve existing jobs through the development of non-agricultural activities in rural areas.

For the period of its implementation until the end of 2021, 770 project proposals have been received under the sub-measure, with a value of the requested subsidy of BGN 211,423,008. 229 contract were concluded for assistance with the agreed financial aid amounting to BGN 58,360,933. All payments under the sub-measure, amounting to BGN 4,539,226, were made in 2021.

## ***Measure 7 "Basic services and renewal of villages in rural areas"***

### ***Sub-measure 7.2 "Investments in the creation, improvement or expansion of all types of small-scale infrastructure"***

In the period 2016-2021, under the sub-measure, 1,457 project proposals were made with total amount of the subsidy of BGN 2,486,420,708. By 31.12.2021, 703 support contracts were concluded, with approved public expenditures in the amount of BGN 1,073,346,859. The total disbursed funds amount to BGN 851,727,790, of which BGN 243,000,171 in 2021.

### ***Sub-measure 7.3 "Support for broadband infrastructure, including its creation, improvement and expansion, passive broadband infrastructure and measures to access solutions through broadband infrastructure and e-government"***

In 2021, there was a call under sub-measure 7.3. "Broadband infrastructure, including its creation, improvement and expansion, passive broadband infrastructure and measures for access to solutions via broadband infrastructure and e-government" One project proposal was received with a value of the requested subsidy in the amount of BGN 82,143,600, which is being processed at the end of the year.

### ***Sub-measure 7.6. "Surveys and investments for maintenance, restoration and improvement of the cultural and natural heritage of the villages"***

In 2020, under the sub-measure there was a call with a total amount of the grant of BGN 28,423,283. The aim of the support is to increase the quality of life and preserve cultural identity and traditions in rural areas. In 2021, the budget under the procedure was increased to BGN 69,162,597.

At that call 133 project proposals were received, with a total value of the requested grants of BGN 76,203,872. As of 31.12.2021, the projects are being processed at the stage of technical and financial evaluation.

For the period of its implementation until the end of 2021, 87 contracts for financial aid were concluded under the sub-measure, with approved subsidy of BGN 49,323,685. The payments made amounted to BGN 43,327,020. The funds paid in 2021 are BGN 1,633,331.

## **Measure 8 "Investments in the development of forest regions and improvement of the forest viability"**

### ***Sub-measure 8.1 "Afforestation and maintenance"***

The support under the sub-measure is targeted at increasing the forest cover in lowland areas, limiting erosion and preserving land quality, improving water balance and adapting to climate change. Individuals, sole traders, local branches of religions, municipalities and legal entities, owners of agricultural or non-agricultural land are eligible for support.

The first call for project proposals was in 2020. 22 applications for assistance were received, with a value of the requested subsidy of BGN 3,179,551. By the end of 2021, the projects were in the process of review and evaluation.

### ***Sub-measure 8.3 "Prevention of damage to forests by forest fires, natural disasters and catastrophic events"***

The purpose of support under this sub-measure is to promote the introduction and improvement of preventive activities to reduce the risk of forest fires, as well as to limit the risk of pests, diseases, natural disasters and catastrophic events in forest territories.

From the beginning of its implementation (2018) until the end of 2021, 19 contracts for financial assistance were concluded under the sub-measure, with a value of the approved subsidy of BGN 31,948,866. All payments, totaling BGN 8,746,054, were made in 2021.

### ***Sub-measure 8.4 "Recovery from damage to forests from forest fires, natural disasters and catastrophic events"***

The support under the sub-measure 8.4 is aimed at restoring forests affected by forest fires, natural disasters, catastrophic events, diseases and pests, as well as protecting the environment and adapting to climate change.

For the period of its application until 31.12.2021, 11 contracts for financial aid were concluded under the sub-measure, with approved public expenditures amounting to BGN 4,488,968. Payments for the total amount of BGN 1,216,715 were made, entirely in 2021.

### ***Sub-measure 8.6 "Investments in forestry technologies and in processing, mobilization and trade in forest products"***

Through the support of sub-measure 8.6, the aim is to increase the competitiveness of forestry, logging and primary processing of wood and create new jobs. Investments in the processing and marketing of forest products are encouraged, as well as those that contribute to improving the condition of forests, their protection and sustainable management. For the period 2018-2021, 48 contracts for aid were signed with total amount of the subsidy of BGN 19,460,414. Payments under the sub-measure have not been made.

## **Measure 9 "Creating producer groups and organizations"**

The aid is aimed at stimulating the establishment of producer groups and organizations in the agricultural sector. The grant is provided in the form of a fixed payment in annual installments, based on a business plan, for no more than five years from the date on which the producer group or organization is recognised. The maximum amount of the support for one year cannot exceed the equivalent of EUR 100,000 in BGN.

From the beginning of the implementation of the measure (2018) until the end of 2021, 26 contracts for financial support were concluded, with a subsidy value of BGN 15,591,684. During the period, payments were made in the amount of BGN 5,288,672, of which BGN 2,919,389 in 2021. The number of members in approved organizations is 411.

## **Measure 10 "Agri-Environment-Climate"**

For the period of implementation of the measure 2015-2021, the total public funds paid amount to BGN

378,555,968. In 2021, BGN 35,749,559 have been authorized for the following areas:

- Restoration and maintenance of permanent grasslands of high nature value;
- Soil erosion control;
- Traditional practices for seasonal grazing (pastoralism);
- Preservation of endangered local breeds with agricultural significance;
- Conservation of endangered local varieties with agricultural significance;

#### **Measure 11 "Organic Farming"**

The measure is implemented through two sub-measures: Sub-measure 11.1 "Payments for transition to organic farming" and Sub-measure 11.2 "Payments for maintenance of organic farming", with support is targeting three areas - organic crop production, organic beekeeping, and organic livestock.

As of 31.12.2021, the funds for the 2015-2020 campaigns, in the amount of BGN 295,400,250, have been paid under measure 11 "Biological agriculture". In 2021, the authorized public funds amount to BGN 45,646,298.

#### **Measure 12 "Natura 2000 Payments and the Water Framework Directive"**

In the period of application of measure 12, the rate of absorption of the funds is uniform and reflects the size of the agricultural areas covered. In 2020, 25 new areas under Directive 92/43/EEC for the protection of natural habitats and wild flora and fauna and one area under Directive 2009/147/EC for the protection of wild birds were promulgated, which in 2021 were included in the assistance under the measure. Payments for the stated commitments during the 2015-2020 campaigns amount to BGN 274,396,596 of public funds. The funds authorized in 2021 amount to BGN 46,873,920.

#### **Measure 13 "Payments for areas facing natural or other specific constraints"**

Measure 13 started in 2015 with two sub-measures - sub-measure 13.1 "Compensation payments in mountain areas" and sub-measure 13.2 "Compensation payments for other areas affected by significant natural constraints". Since 2020 a third sub-measure - 13.3 "Compensatory payments for UAA in other areas with significant natural constraints" - was applied. As of 31.12.2021, a total of BGN 649,511,086 public funds were paid for the 2015-2021 campaigns, and the payments made during the calendar year 2021 amounted to BGN 98,856,047.

#### **Measure 14 "Animal Welfare"**

The measure is implemented in two sub-measures - sub-measure 14.1 "Animal welfare payments in the large ruminant sector" and sub-measure 14.2 "Animal welfare payments in the small ruminant sector". For the period 2017-2021, the total public funds paid under both sub-measures amount to BGN 20,228,572. In 2021, BGN 7,286,747 were authorized.

#### **Measure 16 "Cooperation"**

##### ***Sub-measure 16.1. "Support for establishment and functioning of operational groups within the EMI"***

The sub-measure aims at encouraging the functioning of task forces set up to implement a specific innovative project to achieve the objectives of the European Innovation Partnership on Agricultural Productivity and Sustainability.

The first call for project proposals was opened in 2019. 48 applications for financial assistance were received, with a total value of the requested subsidy of BGN 34,456,481.

At the end of 2020, a second call under the sub-measure was opened with 37 project proposals received, which were in the process of consideration and evaluation until the end of 2021.

In 2021, 19 support contracts were concluded for projects submitted at the first call, with a total amount of financial aid of BGN 11,324,082. Payments under the sub-measure have not been made.

#### ***Sub-measure 16.4 "Support For Horizontal And Vertical Cooperation Between Participants In The Supply Chain";***

Support is provided for the creation and development of short supply chains involving no more than one intermediary between the farmer and the consumer, and for the creation and development of local markets that are within a radius of 75 km from the farm of origin of the product. Both the processing and the sale of the product to the end user must take place within this radius.

In 2020, two receptions of project proposals were held, with a total of 13 applications for aid received and a total value of the requested subsidy of BGN 2,884,824. By the end of 2021, the projects were in the process of evaluation.

### **Measure 19 "Community-led local development"**

#### ***Sub-measure 19.1 "Aid for preparatory activities"***

The implementation of sub-measure 19.1 started in 2015. There were two calls and a total of 133 applications were received. 101 financial aid contracts at the value of BGN 5,128,440 were concluded. 180 municipalities, covering 2,309,619 inhabitants and a territory of 74,433 sq. km (78% of the territory of rural areas of the country) participate in the implementation of activities under the sub-measure.

About 1,200 public events (conferences, seminars, meetings, trainings, etc.) were organized and held by the beneficiaries through the implemented activities.

The total value of the funds paid under the sub-measure with accumulation until the end of 2021 is BGN 3,934,791.

#### ***Sub-measure 19.2 "Implementation of operations within community-led local development strategies"***

The implementation of sub-measure 19.2 aims to expand the scope of the territories that will be supported by the CLLD approach by supporting as many local action groups as possible.

In 2016 and 2017, two calls for applications for LAG selection and approval of CLLD strategies were held. Within the framework of the calls, 64 LAGs, operating in 117 municipalities, covering an area of 53.8 thousand sq. km. and a population of 1.65 million, were approved. Of the 64 approved strategies, 25 are single-fund (with funding source EAFRD), and 39 are multi-fund (with funding source EAFRD, ERDF, ESF).

In 2021, 474 contracts for financial support were concluded (including 129 contracts with municipalities), with a total value of the subsidy of BGN 43,683,698. From the beginning of the implementation of the sub-measure until 31.12.2021, 770 projects have been approved, with a value of public expenditure of BGN 77,332,332.

As of the end of 2021, payments of BGN 13,449,189 were made by EAFRD under the sub-measure.

#### ***Sub-measure 19.3 "Preparation and implementation of LAG cooperation activities"***

The sub-measure, with a budget of BGN 12,712,700, supports projects for preparation and implementation of internal and transnational cooperation. Local initiative groups are encouraged to contribute to the development of the respective rural areas through interaction and implementation of joint projects. According to Regulation (EU) 1305/2013, the application under the sub-measure is ongoing.

For the period 2018-2021, under sub-measure 19.3, 27 project proposals were received with amount of the required subsidy of BGN 1,996,128. 21 financial aid contracts were concluded, with approved subsidy of BGN 1,171,922. The payments made amounted to BGN 1,111,125.

### **Measure 20 "Technical Assistance"**

The measure has a key role in implementing the RDP. The support it provides aims at implementing activities that ensure the awareness and publicity of the Program, conducting analyses, studies, research and evaluations, as well as technical assistance and remuneration for MA and RA.



As of the end of 2021, the concluded contracts and the performed activities under the measure were 144, at a total value of BGN 75,391,003. The disbursed public funds amounted to BGN 57,702 855. In 2021, payments for the amount of BGN 14,793,623 were made.

### **Measure 21 "Extraordinary temporary support for farmers and small and medium-sized enterprises particularly affected by the crisis caused by COVID-19"**

The support under measure 21 "Extraordinary temporary support for farmers and small and medium-sized enterprises particularly affected by the crisis caused by COVID-19" is provided under three sub-measures.

#### ***Sub-measure 21.1 "Extraordinary temporary support for farmers COVID 1"***

Farmers operating in the "Crop" sector for the crops under Annex No. 1 of Ordinance No. 2 of 05.08.2020 on the application of measure 21, and/or the "Livestock" sector (cattle, buffalo, sheep and goats) and/or "Beekeeping" are supported under this sub-measure. By the end of 2021, payments for BGN 71,163,064 were made. In 2021, BGN 2,660,193 were paid.

#### ***Sub-measure 21.2 "Extraordinary temporary support for COVID 2 farmers"***

The support under the sub-measure is targeted at farmers operating in the Crop sector for agricultural crops other than those in Annex No. 1 and/or the Livestock sector (pigs and poultry). The total amount of the paid funds until the end of 2021 is BGN 961,620.

#### ***Sub-measure 21.3 "Extraordinary temporary support for small and medium-sized enterprises and recognized producer groups and organizations COVID 3"***

Beneficiaries under sub-measure 21.3 are micro, small and medium-sized enterprises processing agricultural products listed in Annex I to the Treaty on the Functioning of the European Union (TFEU), as well as recognized producer groups and organizations.

Payments in the amount of BGN 7,589,202 were made under the sub-measure, all in 2021.

### **3. Additional state support**

The support of the agricultural sector in Bulgaria under the two pillars of the CAP is supplemented by financial support with national funds under state aid schemes, short-term and investment loans granted by the Agriculture State Fund.

#### **3.1. State aid**

The policy of the MA regarding the support with state aid in the Agriculture sector is implemented in accordance with the legislation of the European Union in the field of state aid and the Law on State Aid.

State aid support is targeted primarily at small and medium-sized agricultural holdings. The applied measures are related to increasing the competitiveness of the holdings via investments for increasing the efficiency and the production of higher-quality products, insuring and compensating for damage from natural disasters and adverse climatic events; assistance in the prevention of plant and animal diseases; conservation of genetic resources in crop and livestock production; promoting animal welfare; stimulating the participation in exhibitions for popularization of the Bulgarian agricultural production and for exchange of experience.

The state aid initiative usually comes from the branch concerned (Crop, Livestock, Agricultural Processing), which is involved in developing the measure.

The total value of state aid support in the Agriculture sector in 2021 amounted to BGN 383,333,924, of which:

- BGN 227,947,174 under state aid and de minimis aid schemes administered by the SFA;
- BGN 155,386,750 under 2 tax relief schemes (assignment of corporate tax for the tax year 2021 and reduced excise rate on gas oil).

During the year, state aid was provided in the following areas:

**1) Investment aid** - aimed at small and medium-sized agricultural holdings in order to increase investment activity:

- Aid for investment in tangible assets of agricultural holdings related to the primary production of agricultural crop production;

The aid is granted in the form of a capital subsidy to cover part of the costs of investing in machinery, equipment and lines for preparation, cooling and storage of primary agricultural products, as well as machinery, equipment and facilities for protection against frost and hail, necessary for the production of own primary agricultural production in the Crop sector.

- Investments for purchase or construction of facilities for processing and/or handling of raw milk;

The aid is provided in the form of a capital subsidy to cover part of the investment costs for construction of a facility for processing and/or processing of raw milk with the necessary equipment (mini dairies) or for the purchase of a temporary retail facility for dairy products (including the purchase of the necessary equipment) in which raw milk is processed and/or processed, according to Ordinance No. 26 of 14.10.2010 on the specific requirements for direct deliveries of small quantities of raw materials and food of animal origin.

- Investments for purchase of facilities for production and storage of raw milk and facilities for feeding newborn animals with milk;

The aid is provided in the form of a capital subsidy to cover part of the costs of the investment in the purchase of facilities for production and storage of raw milk and facilities for feeding newborn animals with milk.

- Investments for construction of slaughterhouses;

The aid is granted in the form of a capital subsidy to cover part of the costs of investing in the construction of points for production and cutting of meat from own large ruminants and small ruminants on the farm and/or the purchase of mobile ones (movable objects that can be transported by vehicle).

**2) Risk and crisis management** - aimed at counteracting and compensating for damage in the event of natural disasters or adverse weather conditions, as well as in case of animal and plant diseases:

- Aid to compensate for damage to crops caused by adverse climatic events that can be equated to natural disasters;

The support under the scheme is direct aid amounting to up to 80% of the average production costs of growing a crop during the relevant marketing year.

- Aid to compensate for material damage to dead livestock and destroyed beehives;

The aid is paid in the form of direct aid up to 100% of the average market prices of farm animals by species and category.

- Aid to compensate the costs of farmers related to the implementation of measures under the National Pest Control Program in perennials during the winter;
- Aid to compensate the costs of agricultural producers related to the implementation of measures under the "National program of measures for control of soil pests on potatoes from the Wireworms (Elateridae) Family;
- Aid to compensate farmers for the implementation of measures under the National Program of Measures for Control of Tomato Leaf Miner - *Tuta absoluta* Meyrick (Lepidoptera);
- Aid to compensate farmers for costs related to implementation of measures under the State Prophylactic Program and the Programs for the Surveillance and Eradication of Animal Diseases;
- Aid for co-financing of insurance premiums for insurance of agricultural production;
- Aid to compensate for the costs of disposing and destroying of dead animals.

**3) Aid aimed at ensuring the use of quality seed in crop production, maintaining a high level of**

**breeding activity in livestock breeding and optimizing the process of producing quality agricultural products:**

- Aid for the participation of farmers in a quality scheme for production of quality seeds and propagating material;
- Aid for keeping a herd book and determining the productivity traits of animals;
- Aid for certification of holdings in the fruit and vegetables sector under the GLOBALG.A.P standard.

**4) Aid aimed at improving the quality of food and raw materials of animal origin by paying particular attention to animal welfare:**

- Aid to implement voluntary commitments for the welfare of pigs;
- Aid to implement voluntary commitments for the welfare of poultry.

**5) Aid for participation in exhibitions**

Support of this kind contributes to the popularization of Bulgarian agricultural products on the market, as well as to the promotion of profitable plant varieties, animal breeds, innovative and effective technologies and practices among Bulgarian farmers. It is applied in the "Crop production", "Livestock breeding" and "Processing of agricultural products" sectors.

**6) Minimum de minimis aid**

De minimis aid is granted in compliance with the provisions of Regulation (EU) No. 1408/2013 and Regulation (EU) 1407/2013. The de minimis rule applies to aid which, due to its small size, does not endanger competition and can be provided by member states without the need for approval from the European Commission.

In 2021, support amounting to a total of BGN 22,821,278 was provided under developed de minimis schemes.

**7) State aid in the form of tax relief (administered under another procedure)**

- Aid for investments in agricultural holdings by transfer of the corporate tax;

The aid is administered by the National Revenue Agency. According to preliminary data of the National Revenue Agency as of 15 June 2022 (with an extended deadline for filing tax returns until 30 June 2022), the tax declared for transfer for the tax year 2021 was BGN 55,396,493.

- Aid in the form of a rebate on the value of excise duty on gas oil used in primary agricultural production;

In 2021, BGN 99,990,257 was paid to 13,299 farmers under the aid line.

**Table IV.6. State aid in agriculture in 2021**

Item No.	State aid	Utilized financial resource - BGN	Number of beneficiaries
	<b>Total state aid administered by the Agriculture State Fund</b>		
1	Aid to compensate farmers for costs related to implementation of measures under the State Prophylactic Program and the Programs for the Surveillance and Eradication of Animal Diseases	16,879,154	86,800
2	Aid for creation and maintenance of a herd book and for determination of the productivity and genetic traits of animals	7,636,541	4,853
3	Aid to compensate for material damage to dead livestock and destroyed beehives and bee colonies	689,220	169

Item No.	State aid	Utilized financial resource - BGN	Number of beneficiaries
4	Investments for construction of commercial premises and purchase of commercial equipment for farmers carrying out direct deliveries of small quantities of raw materials and food from farm animals	0	0
5	Aid to implement voluntary commitments for the welfare of pigs	37,980,606	67
6	Aid to implement voluntary commitments for the welfare of poultry	35,893,213	221
7	Aid to compensate for the costs of disposing and destroying of dead animals* (indicate the number of organizations providing the subsidized service to farmers)	10,906,074	2
8	Aid "Investments for purchase of facilities for production and storage of raw milk and facilities for feeding newborn animals with milk"	1,748,086	86
9	Aid "Investments for construction of slaughterhouses"	405,526	7
10	Aid "Investments for purchase or construction of facilities for processing and/or handling of raw milk"	361,897	12
11	Aid to compensate for damage to crops caused by adverse climatic events that can be equated to natural disasters	1,972,793	85
12	Aid for compensating the costs of farmers related to implementation of measures under the National Program for Pest Control in Perennials during the winter period	6,113,954	3,479
13	Aid to compensate farmers for the implementation of measures under the National Program of Measures for Control of Tomato Leaf Miner	195,052	93
14	Aid to compensate the costs of agricultural producers related to the implementation of measures under the "National program of measures for control of soil pests on potatoes from the Wireworms family"	1,786,925	339
15	Aid for co - financing of insurance premiums for insurance of agricultural production	2,008,812	552
16	Aid for participation of farmers in a quality scheme for production of seeds and propagating material	1,121,069	425
17	Aid "Investments in tangible assets of agricultural holdings related to the primary production of agricultural crop production"	6,123,378	80
18	Aid for participation in exhibitions	541,000	94
19	Aid for certification of holdings in the fruit and vegetables sector under the GLOBALG.A.P standard	56,579	50
20	Aid to support the liquidity of farmers engaged in primary agricultural production in order to overcome the effects of the negative economic impact of COVID-19	920,057	319
21	Aid to support the provision of liquidity to farmers operating in primary agricultural production to overcome the consequences of the negative economic impact of COVID-19 (for large ruminants, small ruminants, bee colonies, fruit and vegetables)	71,785,960	27,485
22	De minimis aid (Regulation (EU) 1407/2013 and Regulation (EU) 1408/2013)	22,821,278	12,961
	<b>Tax measures</b>		
23	Aid for investment in agricultural holdings by transferring the corporate tax - tax 2021 (not final information)	55,396,493	1,870
24	Aid in the form of a rebate on the value of excise duty on gas oil used in primary agricultural production	99,990,257	13,299
	<b>Total state aid administered by the Agriculture State Fund</b>	<b>227,947,174</b>	
	<b>TOTAL state aid (including through tax measures)</b>	<b>383,333,924</b>	

Source: SF Agriculture, National Revenue Agency, Customs Agency.

### **Expected data for 2022**

It is planned that in 2022 the Agriculture sector will be supported with state aid in the amount of over BGN 900 million. The resource significantly exceeds the funds provided in previous years, due to the extraordinary aid to farmers, aimed at ensuring liquidity in the conditions of economic and geopolitical crisis. This includes both the established resource under schemes administered by the SFA and measures in the form of tax relief.

As of 20.06.2022, by decisions of the Management Board of the State Fund Agriculture, a resource for state aid in agriculture in the amount of BGN 325,707,100 under state aid schemes and for de minimis aid, applied by the SFA, was approved.

### **3.2. Short-term credits**

In 2021, the Agriculture State Fund provided a total of BGN 1,473,973 in the form of short-term credits to farmers, of which:

- BGN 854,984 under targeted credit for the purchase of seeds, seedlings and fertilizers for the production of vegetables (field and greenhouse production) and/or the purchase of fertilizers necessary for the cultivation of perennial crops: fruits (apples, pears, apricots and greens, cherries, sour cherries, peaches and nectarines, strawberries, raspberries, plums, dessert grapes), wine vines and butter rose in 2021;
- BGN 618,989 under a short-term credit to farmers for the production of fruit and vegetables (field and/or greenhouse), 2021 harvest (collateral pledge of a future receivable under the tied support scheme for fruit and/or vegetables for 2021).

During the year, credits for livestock breeders, poultry farmers and pig farmers received in the period 2008-2012 were deferred.

### **3.3. Investment credit schemes of the Agriculture State Fund**

In 2021, the SFA applied the following credit schemes for the investment intentions of farmers:

- Scheme for crediting with funds from State Fund Agriculture to persons with approved projects under the National Beekeeping Program for the three-year period 2020 - 2022;
- Credit scheme of the State Fund Agriculture for investments in agriculture

During the year, no call was opened under the scheme for crediting state aid projects "Investments for construction of commercial premises and purchase of commercial equipment for farmers producing direct deliveries of small quantities of raw materials and foodstuff of animal origin".

- **Scheme for crediting with funds from Agriculture State Fund to persons with approved projects under the National Beekeeping Program for the three-year period 2020 - 2022**

The scheme is implemented for the tenth year in a row, which contributes to a significant increase in the utilization of funds under the National Beekeeping Program (NBP).

Under the terms of the scheme, a larger number of agricultural producers is given the opportunity to provide the necessary financial resources for implementation of approved projects under Measures A, B, C and E of the NBP - purchase of new hives, swarms, queen bees, veterinary medicines beekeeping equipment and attached equipment for mobile beekeeping, by using credit.

The maximum amount of the loan is up to 95% of the amount of the due grant under measures A, B, C, and E of the NBP, calculated on the basis of the actually agreed costs under concluded contracts for purchase and sale of assets approved in the contract for providing grants under the NBP at 2.5% annual interest.

Within the term of the call under the scheme, 222 credit applications were submitted, all of which were processed and financed. The amount of the provided funds was BGN 1,060,688.28.

The repayment of the credit and the due interests shall be implemented by offsetting the approved financial assistance under the NBP.

After offset with the approved financial aid, 221 loans in the amount of BGN 1,059,599.98 or 99% of the provided resource were fully repaid. As of 31.12.2021, the remaining debt amounted to BGN 1,088.30.

- **Credit scheme of the Agriculture State Fund for investments in agriculture**

There are three main directions: Crop, Livestock Breeding, and Technical Assistance, in the credit scheme of the Agriculture State Fund for investments in agriculture. The scheme aims to encourage the investment process, to increase the competitiveness and quality of agricultural products by facilitating the access to credit.

The activities and sites envisaged for financial support are:

- creation, restoration and cultivation of perennial crops and investments in greenhouse production;
- establishing and equipping of livestock farms and purchase of purebred, hybrid and market animals;
- purchase of machinery, equipment and inventory used in agriculture.

The credits under the scheme have a repayment term from 12 to 114 months, depending on the type of investment, which also includes grace periods in terms of repayment of the principal.

The investment projects are financed at an annual interest rate equal to the reference interest rate applicable on the date of concluding the credit agreement, but not lower than the one determined by the Management Board of Agriculture SF for 2021 - 2.5% for direct crediting and up to 7% for refinancing through commercial banks. For credits financed directly by the Agriculture State Fund, the processing and management fee is 0.5%.

Under the loan scheme of the Agriculture State Fund for investments in agriculture in 2021, one loan application worth BGN 49,500 was approved and financed.

#### **Expected data for 2022**

In 2022, the ASF continues to apply the above-mentioned schemes for investment credit to farmers.

The annual interest rate for new credits financed directly by the SFA under the credit scheme for investments in agriculture is 2.5%. At the end of June 2022, one application was received, which was proposed for approval through refinancing by a commercial bank.

In 2022, 195 loan applications were submitted and financed under the scheme for lending to persons with approved projects under the NBP, worth BGN 827,169.

## **V. AGRICULTURAL PRODUCTION ACTIVITIES**

### **1. Control of agricultural and forestry machinery**

#### **1.1. Registration of agricultural and forestry machinery**

The registration of agricultural and forestry machinery allows to monitor the technical condition of each machine, to control their safety at work and transport, to maintain a database of all machines in the country, to track the dynamics of renewal of machinery and tractor fleet.

In 2021, a total of 27,486 pieces of agricultural and forestry machinery were registered in the country, of which 8,674 were brand new.

**Table V.1. Registered agricultural and forestry machinery in 2021**

Machine type	Total	including new machines
Caterpillar tractors	109	9
Wheeled tractors	8,564	1,435
Self-propelled chassis	142	1

Machine type	Total	including new machines
Other self-propelled equipment	5,254	1,514
Tractor trailers	2,561	717
Forestry equipment	1,323	416
Combine harvesters	1,052	199
Self-propelled feed harvesters	45	2
Other self-propelled machines	110	25
Sowing and planting machines	1,205	606
Fertilizer and plant protection machines	1,328	742
Fodder harvesters and feed processors	2,659	1,301
Soil cultivators	3,047	1,686
Dryers and others	8	1
Grain and seed cleaners	15	7
Irrigating machines	64	13
<b>Total:</b>	<b>27,486</b>	<b>8,674</b>

Source: MA

## 1.2. Technical inspection of the equipment

The effective control of the technical condition and safety of equipment ensures protection of life and health of workers with agricultural and forestry equipment and reduction of accidents at work and victims of road accidents associated with equipment malfunctions.

In 2021, the regional directorates of agriculture carried out 131,621 technical inspections of agricultural and forestry equipment.

## 1.3. Qualification to work with machinery and issuance of certificates

After on-site inspections of the facilities and the training documentation, in 2021 46 certificates for registration of educational forms were issued for training of the candidates for acquiring qualification to work with agricultural and forestry equipment on 26 training forms for 46 categories. 20 corrections were made to permits and certificates for registration of educational forms due to change of the circumstances.

**Table V.2. Issued permits and qualification certificates by categories in 2021**

Category	Number of permits issued	Number of qualification certificates issued
tracked and wheeled tractors and machinery attached thereto	21	4,820
specialized and special agricultural machinery	14	2,223
specialized and special self-propelled reclamation equipment (earthmoving machines).	5	561
specialized and special self-propelled forestry equipment (hydraulic cranes and jaw loaders).	0	541
chainsaws and brushcutters	6	1,372
log bandsaw	0	23
cableways	0	16

Category	Number of permits issued	Number of qualification certificates issued
Change of circumstances	20	
<b>Total:</b>	<b>66</b>	<b>9,556</b>

Source: MA

#### **1.4. Testing and certification of used agricultural and forestry machinery**

In 2021, 1,990 tests of used agricultural and forestry machinery and earthmoving machinery were performed at the testing and certification centers in Ruse and Plovdiv.

### **2. Hydromelioration**

#### **2.1. Sites for protection against the harmful effects of water**

The annual statement of expenses for the activity of Irrigation Systems EAD in 2021 is for a total value of BGN 18,360,915 including VAT, and the advance funds provided under the contract for the sites for protection against the harmful effects of water (SPHWI) are BGN 16,946,033, included VAT.

Income from the activity in the amount of BGN 445,728, excluding VAT, was realized.

During 2021, compromised sections of river and gully corrections and protective dikes were restored, which improved their conductivity and their function of flood protection of agricultural lands, settlements and technical infrastructure.

Maintenance of the operational condition of drainage systems and canals was carried out, which improved the water-air balance of the soil in cultivated agricultural lands, contributing to an increase in the yields of agricultural products.

The condition of the Danube dikes has been improved, with areas of shrubby and woody vegetation being cleared. Repairs were made to drainage pumping stations.

The activities carried out by Irrigation Systems EAD (financed with funds from the state budget of Bulgaria) have improved the general operating condition of water management systems and facilities.

For the period 01.01.2022 - 31.05.2022, the costs incurred by Irrigation Systems EAD for carrying out the activities under the SPHWI contract amount to BGN 8.149 million including VAT. In the period until the end of May 2022, 3 sites were restored (compromised sections of river corrections).

In 2022 the programs include further restoration of compromised sections of dikes, river corrections and other sites for protection of the harmful water impact (SPHWI), as well as the assignment and preparation of work designs for compromised sites with the purpose of their subsequent restoration. The costs for the activities under the contract for 2022 for SPHWI are expected to reach BGN 20 million. Due to the lack of sufficient construction mechanization and means of transport, it is difficult to respond to accidents, which deepens critical situations.

The Ministry of Agriculture has assigned Irrigation Systems EAD as contractor for the implementation of construction named "Engineering - research, design and implementation of construction and installation works related to the prevention of flooding of the surrounding agricultural lands and the adjacent facilities and embankments of LOT 4 of the Trakia Motorway "Yambol - Karnobat." 10 sub-sites of the construction have been completed and handed over, as this leaves 2 sub-sites along Azmak Dere for implementation.

It is expected that in 2022, the archaeological surveys along the route of the two sub-sites and the coordination procedures of the project will continue. The main goal of this stage is to carry out the appropriate expropriations and settle the ownership of the forest fund properties, private and municipal properties affected by the detailed development plan. This will enable the implementation and completion of the construction of the two sub-sites along Azmak Dere.



## 2.2. Irrigation

There are 181 dams owned and managed by Irrigation Systems EAD. Of these, 19 complex and significant dams (public state property) have been provided for use, including management, maintenance, operation, protection and monitoring, and 15 are retention dams. In 2021, Irrigation Systems EAD carried out partial repair works on the irrigation infrastructure. The most large-scale and providing water for larger areas for irrigation are local repairs on the lower leveler of the Aleko Hydroelectric Power Plant and repair of the Manole dam. Thus, it is possible to carry out activities for the 2022 irrigation season for irrigated areas in the territories of Pazardzhik and Plovdiv districts, where significant areas planted with rice are irrigated.

In 2021, Irrigation Systems EAD irrigated a total of 283,462 decares, supplying water masses in the amount of 305,886 thousand m<sup>3</sup>, incl. 118,553 decares of rice with 283,102 thousand m<sup>3</sup> of water masses. The total irrigated areas were about 4% more than in 2020.

**Table V.3. Watered areas and supplied water masses by Irrigation Systems EAD in 2021 by types of crops**

	TOTAL		Corn		Tobacco		Vegetables		Perennials		Rice		Other crops	
	Irrigated areas	Supplied water masses	Irrigated areas	Supplied water masses	Irrigated areas	Supplied water masses	Irrigated areas	Supplied water masses	Irrigated areas	Supplied water masses	Irrigated areas	Supplied water masses	Irrigated areas	Supplied water masses
	decares	thousand m <sup>3</sup>	decares	thousand m <sup>3</sup>	decares	thousand m <sup>3</sup>	decares	thousand m <sup>3</sup>	decares	thousand m <sup>3</sup>	decares	thousand m <sup>3</sup>	decares	thousand m <sup>3</sup>
Burgas	5,144	302							1,400	94			3,744	208
Vidin	4,201	150	4,201	150										
Gorna Tundzha	21,396	35,637	2,621	407	2,019	413	1,126	252	853	44	14,364	34,473	413	48
Lower Danube	8,640	1,622	725	77			461	166	131	18			7,323	1,361
Maritsa	99,327	162,843	22,410	2,724	1,129	183	1,649	162	3,711	268	66,876	159,078	3,552	428
Mizia	2,897	222	1,404	35	940	75	308	70	241	41			4	1
Sofia	7,210	857	186	15			5,346	707	1,026	105			652	30
Middle Danube	15,232	1,892	3,023	235	444	115	5,616	1,236	886	24			5,263	282
Middle Tundzha	36,293	4,803	26,545	3,837			2,057	219	4,727	440			2,964	307
Struma-Mesta	8,774	1,190	2,616	226	231	23	3,341	473	1,192	179			1,394	289
Topolnitsa	61,707	93,690	16,506	2,858	1,356	287	3,291	505	2,920	327	37,313	89,551	321	162
Haskovo	4,663	1,084	1,892	435	556	76	1,485	507	553	37			177	29
Black sea	2,223	336					1,333	281	123	6			767	49
Shumen	5,755	1,258	4,308	838			278	85	21	1			1,148	334
<b>TOTAL</b>	<b>283,462</b>	<b>305,886</b>	<b>86,437</b>	<b>11,837</b>	<b>6,675</b>	<b>1,172</b>	<b>26,291</b>	<b>4,663</b>	<b>17,784</b>	<b>1,584</b>	<b>118,553</b>	<b>283,102</b>	<b>27,722</b>	<b>3,528</b>

Source: Irrigation Systems EAD

In 2021, the prices at which Irrigation Systems EAD performs the service "supply of water for irrigation" are differentiated by regions and depending on the method of supply, and have not changed compared to 2020.

**Table V.4. Summary for Irrigation by Irrigation Systems EAD for the period 2019 - 2021**

	2019			2020			2021		
	1st irrigation	Irrigated decares	Water masses	1st irrigation	Irrigated decares	Water masses	1st irrigation	Irrigated decares	Water masses
	decares	decares	thousand m <sup>3</sup>	decares	decares	thousand m <sup>3</sup>	decares	decares	thousand m <sup>3</sup>
Burgas	8,038	13,229	520	4,891	5,578	255	5,144	7,464	302
Vidin	3,233	6,466	177	1,066	5,267	206	4,201	6,675	151
Gorna Tundzha	17,910	19,781	32,941	19,432	26,753	31,807	21,395	32,596	35,638
Lower Danube	7,142	40,365	1,670	7,896	44,059	1,859	8,640	37,979	1,621
Maritsa	96,619	106,429	162,433	101,753	113,941	167,523	99,327	314,953	162,841
Mizia	1,588	4,038	173	853	3,009	103	2,896	10,246	222
Sofia	4,535	10,152	576	4,951	12,399	765	7,211	14,198	857
Middle Danube	11,821	57,535	1,635	16,545	65,773	2,195	15,233	66,422	1,893
Middle Tundzha	22,855	35,781	2,901	36,027	65,853	4,930	36,293	60,268	4,802
Struma-Mesta	7,467	14,795	1,062	8,329	17,838	1,247	8,775	17,777	1,189
Topolnitsa	57,864	74,688	87,067	60,647	83,686	88,706	61,707	78,081	93,690
Haskovo	4,132	18,191	883	4,646	18,875	1,070	4,663	17,085	1,085
Black Sea	1,601	6,707	319	2,322	9,283	377	2,223	8,393	335
Shumen	2,573	7,038	638	3,763	7,810	463	5,755	27,959	1,258
<b>TOTAL</b>	<b>247,378</b>	<b>415,193</b>	<b>292,994</b>	<b>273,118</b>	<b>480,123</b>	<b>301,507</b>	<b>283,462</b>	<b>700,095</b>	<b>305,886</b>

Source: Irrigation Systems EAD

### **2.3. Activities under sub-measure 4.3 "Investments for development, modernization or adaptation of agricultural and forestry infrastructure of the RDP 2014-2020"**

In order to permanently provide better quality service and reduce water losses, it is necessary to provide significantly more funds. In this regard, Irrigation Systems EAD was given the opportunity to apply for rehabilitation of existing irrigation and irrigation facilities under sub-measure 4.3 "Support for investments in infrastructure related to the development, modernization or adaptation of agriculture and forestry" of measure 4 "Investments in tangible assets" from the Rural Development Program for the period 2014-2020.

The support under the sub-measure will focus on the reconstruction/rehabilitation and modernization of hydro-ameliorative irrigation facilities used only for agricultural purposes, outside agricultural holdings, in order to reduce water losses and for adaption of the adapt agriculture to the effects of climate change. The support under the sub-measure will ensure efficient use of water resources through the introduction of new technologies, leading to a real reduction in losses and water consumption in agriculture, increasing competitive advantages and reducing the pressure on water bodies.

The company has prepared a total of 35 investment proposals for support, which were selected to include sections of the most intensively used irrigation facilities with a primary need for rehabilitation, located throughout the country. After their approval and inclusion in the program by the evaluating bodies, the repair and restoration works may start after the end of the irrigation season for the current year, respectively - before the beginning of the next irrigation season, and the deadline for their implementation is 2025.

In 2023, the unapproved projects under measure 4.3 (including additionally prepared project proposals) are expected to be provided with an opportunity to apply under the instrument - Strategic Plan for the Development of Agriculture and Rural Areas of Bulgaria for the period 2023 - 2027.

In 2022 - 2023, in addition to measure 4.3 and CAP 2023 - 2027, activities are also carried out under a project in which Irrigation Systems EAD participates in a project proposal for Digitalization for Complex Management, Control and Efficient Use of Water. The project includes the analysis, design and construction of an "Integrated Water Quantity Management System" as part of the National Recovery and Sustainability Plan with a deadline for the implementation of project measures until September 2025.

### **3. Plant protection and phytosanitary control**

#### **3.1. Monitoring the development of economically important pests and plant protection**

Plant protection inspectors at the RFSD carry out systematic observations of agricultural crops for the emergence, development and spread of economically important diseases and pests that are directly dependent on agro-meteorological conditions during the growing season. It is the obligation of the farmers to inspect the fields for disease and pest infestation in a timely manner and to apply chemical control only when the thresholds of economic harmfulness of pests in different crops are reached.

#### **3.2. Plant protection**

##### **▪ Plant protection in cereals**

In 2021, the general phytosanitary condition of cereals was good.

##### **Weed control**

During the year, herbicides were applied to a total of 1,397,702 thousand ha with autumn crops (compared to 1,361,297 thousand ha in the previous 2020), including 1,276,159 thousand ha with wheat and 121,543 thousand ha with barley. Treatment against broadleaf weeds was carried out on 644,650 thousand ha.

In 2021, soil herbicides were applied to 235,938 thousand ha on areas sown with corn, and a total of 297,799 thousand ha were treated with vegetation herbicides against types of wheat and broadleaf weeds, compared to 318,701 thousand ha for 2020.

##### **Pests and Diseases Control**

##### ***Corn bug (Eurygaster integriceps Put.)***

The total areas affected by the adult of the corn bug are 161,390 thousand ha (137,021 thousand ha for the previous year 2020), and treatment was carried out on 127,926 thousand ha.

Treatment against the larvae of the pest was carried out on 142,500 thousand ha, while 190,585 thousand ha were affected.

##### ***Cereal Leaf Beetle (Oulema melanopa (L.))***

In 2021, 138,100 thousand ha were treated (compared to 169,464 thousand ha for the previous year) against the larvae of the cereal leaf beetle, and the total areas affected by the pest were 166,260 thousand ha (compared to 202,532 thousand ha for 2020). As a result of the level of agrotechnics carried out in combination with the meteorological conditions during the growing season, a reduction is observed on an annual basis in the affected and treated areas.

##### ***Leaf-eating caterpillars***

Predominant species in orchards are: Gypsy moth (*Lymantria dispar*); brown-tail moth (*Euproctis chrysorrhoea*); mottled umber (*Hibernia (Eranis) defoliaria*); Cheimatobia (*Operophtera*) *brumata*); fall webworm (*Hyphantria cunea*); white glider (*Aporia (Ascia) crataegi*). In 2021, the pests were in low population density and degree of attack. Treatments against the other pests limited the harmful activity and spread of the leaf-eating insects. Treatment against the main leaf-eating species was carried out on 12,201 thousand ha of orchards,

including 2,807 thousand ha of pome fruit and 9,394 thousand ha of stone fruit species in combination with the fight against other pests.

### ***Powdery mildew***

During the year, the wheat fields affected by powdery mildew were 420,289 thousand ha, treatment was carried out on 486,699 thousand ha. (at 545,861 thousand ha treated in 2020). Multiple early chemical treatments were carried out, as in most of the treated areas the fungicides used were combined with the application of vegetation herbicides.

### ***Septoria***

284,071 thousand ha were affected by the disease and treatment was carried out on 357,210 thousand ha.

## ▪ **Plant protection in industrial crops**

### **Weed control**

In 2021, soil herbicides were applied on 412,649 thousand ha of sunflower, and 443,082 thousand ha were treated vegetatively.

In the autumn, chemical control of weeds in rapeseed was carried out, mainly with soil herbicides, and they were applied on 54,672 thousand ha (50,831 thousand ha for 2020). Vegetation herbicides were applied on 68,913 thousand ha.

In 2021, soil herbicides were applied on 1,719 thousand ha of tobacco, and 0.322 thousand ha were treated with vegetative herbicides.

Chemical control of weeds in potatoes was carried out by applying soil and vegetation herbicides. Soil herbicides were applied on 7,505 thousand ha, and vegetative herbicides were applied on 2,010 thousand ha.

### **Control of diseases and pests**

#### ***Black spots (Phoma) and Stem canker (Phomopsis) in sunflower***

Throughout the year, 67,470 thousand ha were treated against phoma and 68,148 thousand ha against phomopsis (compared to 46,817 thousand ha and 43,087 thousand ha in 2020, respectively). The treatments were mainly preventive.

#### ***Mildew on Sunflower***

In 2021, 15,241 thousand ha were treated against the disease, compared to 0.600 thousand ha in 2020.

The cause for the mildew is *Plasmopara helianthi*. The control measures for the pathogen are: application of a high level of agrotechnics - mandatory decontamination of seeds before sowing, observance of 7-8 annual crop rotation with cereal crops; deep plowing after harvesting, sowing of resistant varieties and hybrids; mandatory destruction of self-sowing plants.

#### ***Rape beetle (Meligethes aeneus)***

In the months of April and May of 2021, treatments against the *M. aeneus* beetle were carried out on 162,038 thousand ha of rapeseed, compared to 102,346 thousand ha in 2020.

#### ***Rape stem weevil (Ceutorhynchus napi)***

In 2021, 28,775 thousand ha of rapeseed were treated against the pest, compared to 36,744 thousand ha in the previous year.

## ▪ **Plant protection in vegetable crops**

### **Pest Control**

#### ***Tomato pinworm (Tuta Absoluta)***

In 2021, the reproduction of the pest was not allowed in most greenhouses in the country. From 1 to 10 insecticide treatments were carried out - a total of 0.421 thousand ha, compared to 0.489 thousand ha in 2020.

Under field conditions, 1 to 9 treatments against the tomato pinworm were carried out on an area of 2,067 thousand ha (1,744 thousand ha in 2020).

In 2021, the implementation of state aid under the "National Program of Measures for Control of Tomato Leaf Miner" continues. Beneficiaries of the aid are farmers growing tomatoes in greenhouses, as well as peppers, aubergines, potatoes grown in greenhouses on areas larger than 1 decare. 102 farmers applied for the 2021 campaign under the program.

- **Plant protection in orchard crops**

- Pests and Diseases Control**

- Tortrix moths (Tortricidae) and Temetocera ocellana F. and Hedya nubiferana Haw***

- Treatment against pests was carried out on 2,578 thousand ha of pome fruit species (at 2,157 thousand ha for 2020).

- Aphididae***

- In 2021, all fruit crops were affected by aphids. 4,408 thousand ha of pome fruit and 15,461 thousand ha of stone fruit species were treated, from 1 to 7 times.

- Quadraspidiotus perniciosus***

- A total of 1,994 thousand ha of fruit plantations were treated against the San Jose scale.

- Parthenolecanium corni Bouche***

- 1,327 thousand ha of plums from a total of 12,010 thousand ha of plum trees were treated, as mainly combined treatments for plum moth were carried out.

- Cherry fruit fly (Rhagoletis cerasi L.)***

- In 2021, up to 15% of fruit were affected by worms. Chemical treatments were carried out in the regions of Kyustendil, Stara Zagora and Targovishte for the late-ripening varieties of cherries, and 9,205 thousand ha were treated.

- Black plum sawfly (Hoplocampa minuta Christ.)***

- In 2021, 4,801 thousand ha were treated against the pest compared to 5.274 thousand ha in 2020 from 1 to 4 times.

- Fruit worms***

- 5,152 thousand ha of apple orchards were treated against apple maggots, 7,237 thousand ha of plum orchards against plum maggot and 5,593 thousand ha against eastern peach and apricot maggot.

- Peach-twig borer (Anarsia lineatella Zell.)***

- 4,039 thousand ha peach and apricot orchards were treated in 2021.

- Roundworm moth (Leucotera (Cemiostoma) scitella Zell.) on apple trees***

- In 2021, 0.734 thousand ha were treated against the roundworm, compared to 0.420 thousand ha in 2020.

- Apple scab and pear scab***

- The rainfall in May provoked the development of the pathogen. The districts of Blagoevgrad, Burgas, Vidin, Vratsa, Kardjali, Kyustendil, Lovech, Montana, Razgrad, Silistra and Targovishte were affected in first-degree. The fruit tree leaves and stems were moderately affected in the district of Pazardzhik. In 2021, 5,278 thousand ha were treated against apple and pear scab.

### ***Powdery mildew on apple trees***

In 2021, 3,930 thousand ha of apple and pear orchards were treated against powdery mildew.

### ***Early brown rot***

During the year, 1 to 5 treatments against early brown rot were carried out on 14,877 thousand ha of the total managed stone fruit trees (including plums, cherries, sour cherries, peaches, apricots).

### ***Late brown rot***

As a result of the rainfall and the increased relative humidity of the air combined with favorable temperatures, the symptoms of late brown rot appeared on the fruits in June. 5% to 25% of the fruit was affected at first-second degree.

### ***Peach powdery mildew***

During the vegetation, 1 to 7 sprays were carried out. 3,350 thousand ha of cherries were treated.

### ***Peach Leaf Curl***

1 to 4 treatments were carried out on an area of 3,157 thousand ha peach trees.

### ***Cherry leaf spot (Blumeriella jaapii) on cherries and sour cherries***

The weather conditions until the middle of May were favorable for the development and spread of cherry leaf spot. Then the first spots of the fungal disease were recorded as the trees were not severely affected. Precautionary treatments were carried out due to the expected rains and possible rise of the degree of the disease.

In June, 6% to 15% of the affected leaves were affected in the first-second degree, with medium to strong manifestations on the sensitive varieties.

In 2021, from 1 to 3 treatments were carried out on an area of 7,310 thousand ha of cherries and sour cherries, compared to 6,744 thousand ha treated in the previous year 2020.

## **▪ Plant protection in vineyards**

### **Weed control**

In 2021, soil herbicides were applied on 2,880 thousand ha and vegetation herbicides on 18,556 thousand ha of the managed areas occupied by vineyards.

### **Pests and Diseases Control**

#### ***European Grapevine Moth (Lobesia botrana Schiff.)***

During the year, out of a total of 37,768 thousand ha of vineyards, 12,668 thousand ha were treated (compared to 20,001 thousand ha in 2020).

#### ***Schizotetranychus viticola Reck.***

During the year, 1 to 5 treatments were carried out on 4,790 thousand ha vineyards.

#### ***Grapevine Downy Mildew (Plasmopara viticola)***

In 2021, 1 to 10 treatments against mildew were carried out on a total area of 31,384 thousand ha, compared to 40,433 thousand ha treated the previous year.

#### ***Powdery mildew (Oidium)***

From 1 to 11 treatments were carried out on 33,674 thousand ha of vineyards.

#### ***Gray mould rot (botrytis)***

From 1 to 11 treatments were carried out in the areas treated against gray rot (18,409 thousand ha).

## **▪ Plant Protection against Omnivorous Pests**

### ***Common Vole (*Microtus arvalis*)***

In the spring of 2021, the total area of autumn trees attacked by the common vole was 15,660 thousand ha. Chemical control was carried out on 4,610 thousand ha.

### ***Wireworms***

In 2021, state aid was granted to compensate the costs of agricultural producers related to the implementation of measures under the „National Program of Measures for Control of Soil Pests on Potatoes from the Wireworm Family”. The aid consisted of compensation of the costs for purchase of plant protection products, for the control of soil pests on potatoes from the wireworm family. During the year, 341 farmers applied for aid, at 3,569 thousand ha of potatoes attacked.

### ***Maize Leaf Weevil (*Tanymecus dilaticollis* Gyll.)***

The pest is spread throughout the country, but it is found in the highest density in the Danube Plain, Ludogorie and Dobrudza. It causes the most serious damage in corn and sunflower.

In 2021, chemical control was carried out against Maize Leaf Weevil (*Tanymecus dilaticollis* Gyll.) on 46,258 thousand ha of maize and 31 thousand ha of sunflower.

## **3.3. Phytosanitary Control**

The priorities, goals and tasks of phytosanitary control (PSC) are formulated in the national strategic documents of the Ministry of Agriculture on the policies, priorities and strategic goals in the development of agriculture in the country, as well as in the Program of the Ministry of Agriculture for 2021, in which the objectives of the department are defined.

The priority activities for achieving the main operational objective in the field of phytosanitary control are:

- Production control of plants and plant products on the territory of Bulgaria with a view to timely detection and prevention of the spread of quarantine pests on plants and plant products;
- Official control on the import of plants, plant products and other objects at checkpoints other than border checkpoints;
- Ensuring the export of plants and plant products according to the phytosanitary requirements of the importing country;
- Legislation harmonized with the EU plant health regime;
- Carrying out phytosanitary monitoring programs for quarantine pests, in accordance with EU legislation;
- Laboratory-diagnostic network.

### **3.3.1. Production control of the territory of Bulgaria and movement of plants, plant products and other objects within the EU**

Phytosanitary control in the production and movement of plants, plant products and other sites and monitoring in the country for quarantine pests and regulated non-quarantine pests (RNQ) in 2021 was carried out in compliance with the requirements of Regulation (EU) 2016/2031 of the European Parliament and of the Council of 26.10.2016 on protective measures against plant pests; Regulation (EU) 2017/625 of the European Parliament and of the Council of 15.03.2017 on official controls and other official activities carried out to ensure the application of food and feed legislation, rules on animal health and welfare, plant health and plant protection products, Implementing Regulation (EU) 2019/2072 of the Commission of 28 November 2019, Plant Protection Act (PPA), Commission Implementing Acts on taking emergency measures to prevent the introduction into the EU and the spread of quarantines and new, unknown pests in the EU.

Under Art. 22 (1) of the Plant Protection Act entities who import, produce, process and/or grow plants and plant products, warehouses, distribution centers, commodity markets and markets of producers of such plants and plant products are registered in the official register of the professional operators for PSC.

For 2021, the total number of registered professional operators is 3,477, which is 11.4% more compared to the 3,121 registered in 2020. Of these, 556 are importers of plants, plant products and other objects, and 154 are registered professional operators who have been given permission to mark or repair wooden packaging material, according to the requirements of Art. 98 of Regulation (EU) 2016/2031 of the European Parliament and of the Council on protective measures against plant pests.

In the production of plants and plant products, 6,480 inspections were carried out in 2021, compared to 4,282 in the previous 2020.

The main priority in the field of phytosanitary control in implementation of the legislation of the EU and the national phytosanitary legislation is the exercise of phytosanitary control for the production and supply of healthy plants and plant products. For this purpose, monitoring programs for quarantine pests by crops and pests were developed and updated annually, which are carried out on the territory of the entire country. Strict supervision guarantees phytosanitary security during the movement of plants, plant products and other sites on the territory of the EU, as well as during export to third countries, in accordance with the phytosanitary requirements of the importing country.

The observations of pests in the country in 2021 were carried out by the official phytosanitary inspectors of the BFSA under the following national monitoring programs:

- Monitoring for quarantine pests on potatoes;
- Monitoring for quarantine pests on strawberries and raspberries;
  - Monitoring for fruit maggots.
- Monitoring for quarantine pests on vineyards;
- Monitoring for quarantine pests by vegetable species in greenhouses and open areas;
- Monitoring for quarantine pests in greenhouses, nurseries and garden centers for flowers and ornamental plants;
  - Monitoring for *Xylella fastidiosa*;
- Monitoring for quarantine pests by forest species;
- Calendar plan for monitoring plants and plant products for quarantine pests.

During the observations carried out under the monitoring programs on the territory of the country in 2021, 5,674 inspections were documented compared to 5,759 in 2020 (1.5% less); 1,669 samples were analyzed in the regional diagnostic laboratories for plant health (ODRHR), compared to 2,131 samples in 2020 (by 21.7% less).

The conduct of phytosanitary control and the application of phytosanitary measures are closely related to the laboratory, diagnostic and methodical support of the Central Plant Quarantine Laboratory (CPQL) at BFSA.

By Order No. RD-09-976 of 18.10.2019 of the Minister of Agriculture, Food and Forestry, the Central Plant Quarantine Laboratory has been designated as the National Reference Laboratory for plant pests - for insects and mites, for nematodes, for bacteria, for fungi and oomycetes and for viruses, viroids and phytoplasmas.

CPQL works in the following main directions:

- Phytosanitary laboratory expertise of plants, plant materials and soils, final diagnosis and identification of pests;
- Methodical guidance and control of the activity of the ODRHR in the RFSD;



- Training of phytosanitary control inspectors, producers, students and laboratory specialists in pest control, diagnostics and pest identification.

In 2021, 4,178 samples were received in the Central Laboratory and 12,043 analyses of plants, plant materials and imported soils, incl. - from EU traffic, from field control, from monitoring programs and from the private sector, were performed, as follows:

- Imported seeds, plants for planting, and plant materials - 1,342 analyzes were performed on 358 samples, compared to 268 samples (+33.58%) and 886 analyzes (+51.47%) in 2020.

The following were established: the quarantine pests - *Bemisia tabaci* and regulated non-quarantine pests - *Aphelenchoides besseyi*, *Tetranychus* sp.

- Seeds, plants for planting, and plant materials from movement control in the community - 125 analyzes were performed on 25 samples, which represents a decrease of 19.36% and 17.22%, respectively, compared to 2020.

Quarantine and regulated non-quarantine pests have not been identified.

- Seeds, plants for planting, and plant materials from field control and monitoring - 9,919 analyzes were performed on 3,300 samples, on 4,394 samples and 11,526 analyzes in the previous year, i.e. in 2021, samples decreased by 24.9% and analyzes by 13.94%.

The following were established: quarantine pests - *Clavibacter sepedonicus*, *Globodera pallida*, *Globodera rostochiensis*, *Tomato brown rugose fruit virus (ToBRFV)*, *Synchytrium endobioticum*.

- Soil analysis - 657 analyzes were performed on 495 samples.

The quarantine pests were identified: *Synchytrium endobioticum*, *Globodera pallida*, *Globodera rostochiensis*, *Globodera pallida* + *Globodera rostochiensis*.

The timely detection of pests enables the phytosanitary inspectors to take timely and appropriate action to locate outbreaks and eradicate them where possible.

The specialized potato laboratory in Samokov, potato varieties are being tested for resistance to potato cyst nematodes.

In 2021, 2,393 plant passports of locally produced goods were issued for the country and the EU (+30.6% compared to 2020); 74 health certificates (+80.5% compared to 2020) and 53 pre-export certificates (nearly three times more compared to the previous year 2020).

### 3.3.2. Phytosanitary control at export

Phytosanitary control is the main factor for the successful export of plants, plant products, and other objects from the country.

Phytosanitary control during export and re-export of plants, plant products, and other objects is carried out in accordance with the phytosanitary import requirements of the importing country. The phytosanitary certificates for export and re-export of plants, plant products, and other objects are in accordance with the models of the International Convention on Plant Protection.

In 2021, 15,415 inspections were carried out (13.75% more than the 13,552 inspections carried out in 2020), on 34,990 shipments of plants and plant products intended for export, for compliance with the phytosanitary requirements of the country importer (at 32,054 pieces in 2020, i.e. in 2021 we report 9.15% more inspected shipments for export).

In 2021, 18,895 phytosanitary certificates for export were issued (by 3.19% less compared to 2020) and 135 PSC for re-export (compared to 129 in 2020).

The main goods subject to phytosanitary control for export are: wood, sunflower (peeled, colored, black), wheat, corn, coriander, dried herbs, lavender, and spices.

Timber exports are mainly to Turkey, North Macedonia, Serbia, Albania, Israel, Egypt and Vietnam; of coriander - for Indonesia, Malaysia, India, Thailand, South Korea, and Sri Lanka; of sunflower (peeled and black) - for USA, Turkey, Australia, Mexico, Thailand and South Africa; of corn - for Turkey, South Korea, Lebanon, Libya and South Korea; of lavender - for Turkey and Ukraine; of dried herbs - for the USA, Japan, South Korea and Canada; and spices - for the USA, Japan, Turkey, Serbia and Great Britain.

### **3.3.3. Phytosanitary control at import**

In 2021, in the official register of professional operators under Art. 65 of Regulation (EU) 2016/2031, 556 importers were registered, compared to 505 in 2020, i.e. an increase of 10%.

108 lots were checked. The analyzed samples from imports were 112 compared to 97 in 2020 (+13.4% in 2021). 50 plant passports were issued, compared to 27 in 2020.

### **3.4. Control of plant protection products and fertilizers**

The main purpose of the control over the marketing of plant protection products (PPPs) and fertilizers is to ensure the marketing, storage, repackaging and production of permitted, usable, efficient, maximally safe for human and animal health, sparing environmental PPPs and fertilizers that meet the legal requirements for packaging and labeling. The scope of control covers companies for trade, repackaging and production of PPP and fertilizers, as well as unregulated trade sites and border crossings.

The control over the use of PPP and fertilizers aims to ensure the correct and sustainable use of plant protection products in compliance with the requirements of Good Plant Protection Practice (GMP) and implementation of forecasting methods with the principles of integrated pest management to produce safe plant production. The scope of control involves sites offering PPP and farmers who apply plant protection products and fertilizers in the production of plant products intended for food or feed.

The control over the plant protection products is performed on the basis of risk categorization, based on the control activity from previous years.

In 2021, 134 plant protection products were authorized to be placed on the market and in use, in accordance with the requirements of the Plant Protection Act and Regulation (EC) No. 1107/2009 concerning the placing on the market of plant protection products. 93 authorizations of plant protection products were revoked or terminated, 128 products were amended and there was 1 denied application for limited and controlled use and for a zonal procedure.

#### **3.4.1. Results of the control activity on the marketing of PPPs**

1,323 sites including 889 for trade in agricultural pharmacies, 419 warehouses for storage and wholesale (own warehouses and cells for rent), 13 sites for repackaging and 2 production companies, were registered on the territory of the country.

In 2021, 1,763 inspections were carried out, 1,038 of which were in agricultural pharmacies, 593 in warehouses, 14 in repackaging sites, 13 in PPP production sites and 105 in unregulated sites (municipal markets, shops, etc.). 290 precepts were issued, including 208 in agricultural pharmacies, 65 in warehouses for trade, 2 in sites for repackaging of PPPs and 15 in unregulated sites, with corrective measures to eliminate discrepancies and a specified deadline for implementation. 34 citations for administrative violations and 23 penal citations were drawn up.

In 2021, a total of 230 certificates were issued, including 29 certificates for PPP trade in warehouses, 51 for trade in agricultural pharmacies, and 150 certificates for change of circumstances.

Based on received applications, 26 certificates for extending the period of validity of the PPP and 3 opinions on established inconsistencies of the PPP with the indicators affirmed upon their approval were prepared and issued.

During the year, 100 compliance control samples were taken. No discrepancies were found in the analyzed samples.

A total of 731,764 kg and 4,041,282 liters of PPP were seized or confiscated from the trading, production and repackaging sites and left for safekeeping.

#### **3.4.2. Results of the control activity on the use of PPP**

The total number of inspections of the use of PPE in 2021 was 5,792, including: 4,073 documentary checks in RFSD, 1,500 documentary during on-site farm inspections, 65 during aerial spraying, 32 during fumigation, 52 during treatment of seeds for sowing and 70 during treatment with ground equipment.

During the year, 1,085 precepts, 37 citations for established administrative violation, and 14 penal decrees were drawn up.

On the territory of the country, 121 inspections were carried out on signals or complaints regarding the use of PPP, 17 citations for established administrative violations were drawn up and 11 penal decrees were issued.

#### **Samples for pesticide residues under the National Program for Control of Pesticide Residues in and on Foods of Plant and Animal Origin (NPCPR) and leaf samples for identification of PPP**

Of the planned 97 samples for pesticide residues, 95 samples were taken in 2021. 8 inconsistencies were found in samples from the following crops: lettuce, spinach, cherries, plums, pepper, cucumbers, and peaches. 7 citations for established administrative violations were drawn up. The detected non-conformities are for the use of non-permitted PRPs and those outside the scope of permitted use.

In 2021, 50 samples were taken from the planned leaf samples for the identification of the used PPP, which were analyzed in CLCTC, and 10 citations for violations were drawn up for the unauthorized use of PPPs. The detected non-conformities are for the use of non-permitted PRPs and those outside the scope of permitted use.

#### **Samples of plants and plant products under the National Program for Control of Contaminants in Food (nitrates and heavy metals - lead and cadmium)**

29 samples for nitrate and heavy metal content were taken and analyzed - lead and cadmium - and no inconsistencies were found.

#### **Samples taken from plants and plant products outside the National Plan for Control on the Use of PPPs for 2021**

Due to signals, complaints and orders, laboratory analysis of 12 samples was carried out and 2 citations for administrative violations were issued.

#### **Permits issued for the application of PPPs through aerial spraying, pursuant to Art. 109 of the Plant Protection Act was carried out**

112 aerial spraying permits were issued during the year. The treated areas were 361,929 decares of agricultural areas and 16,106 decares of forest areas.

#### **Opinions issued to farmers that applied for support measures from the "Program for the Development of Rural Areas 2021 - 2027"**

In 2021, 725 opinions were issued on the support measures.

#### **Inspections of agricultural holdings for compliance with the rules of Good Agricultural Practice - Nitrates (Agroecology)**

During the year, 693 inspections were carried out and 19 precepts were issued.

### **4. Fertilizers**

#### **4.1. Registration of fertilizers**

In 2021, 117 certificates were issued for the registration of fertilizers, soil improvers, biologically active substances, and food substrates.

#### 4.2. Control of fertilizers upon their placing on the market

A total of 881 inspections were carried out on the territory of the country in 2021 in connection with the control of fertilizers carried out by the BFSA, with 679 inspections planned. 39 precepts with a deadline for their implementation were issued. 8 citations for established administrative violation were drawn up.

In implementation of the National Plan for Control of Fertilizers, Soil Improvers, Biologically Active Substances and Food Substrates, 94 samples of fertilizers were examined for 2021, of which 84 were EC fertilizers and 10 were fertilizers registered under the national legislation. 94 statements of compliance were prepared. Non-conformities were found in 6 samples of EC fertilizers, of which 3 samples do not meet the requirements of Regulation (EU) 2019/1009 and the indicators announced by the manufacturer, and the other 3 do not meet the indicators announced by the manufacturer. Actions have been taken by the control body according to art. 139 of the Plant Protection Act.

**Table V.5. Control over fertilizers in the period 2019 - 2021**

Activities	2019	2020	2021
Number of registered fertilizers	72	93	117
Number of site inspections	894	803	881
Samples of fertilizers taken for analysis	96	94	94
Citations for violations	5	4	8

Source: BFSA

#### Use of sludge in agriculture

In 2021, 121 permits were issued for utilization of sewage sludge for use in agriculture, on fields with a total area of 16,364 decares in the lands of: Grigorevo village, Karapoltsi village, Lesnovo village, Chepintsi village, Bogdanliya village, Negovan village and Novi Khan in the region Sofia City and Ruse District. The total amount of recovered sludge, expressed as dry matter, was 32,023 tons for wheat, sunflower, and corn.

#### 5. Variety testing, approbation, and seed control

The state policy in the field of variety testing, variety maintenance, production, trade, import and export of sowing and planting material is implemented through the Executive Agency for Variety Testing, Approbation and Seed Control at the MA.

EAPVTASC controls the production, harvesting, distribution, trade and storage of sowing and planting material; its certification in compliance with the accepted methods, schemes and technological characteristics for quality; manages the procedure for testing, recognition and zoning of cultivated plant varieties; annually issues the Official Variety List of the Republic of Bulgaria for the varieties of field, vegetable, fruit crops and vines; enters the newly registered varieties in the European catalogs of the EU and is responsible for the full harmonization of the national legislation in the field of seeds and propagating material with that of the EU.

The Agency is the national body for implementation of the Organization for Economic Co-operation and Development (OECD) seed schemes.

In 2021, by-laws on seeds and propagating material, transposing directives amending and supplementing basic EU directives, were updated. The existing regulations were amended and supplemented, specialized internal regulations, such as test methods for distinctness, homogeneity and stability (RCS) according to the technical protocols of the European Plant Variety Office (CPVO) and the International Union for the Protection of New Varieties of Plants (UPOV), test methods for biological and economic qualities (BIA), were developed.

In order to meet the expectations of customers for provision of administrative services, in compliance with the highest professional standards, EAPVTASC is accredited and has effective quality systems according to ISO 9001:2015, as per the standard of the International Association of Seed Laboratories (ISTA) and by the

European Plant Variety Office. The Agency is authorized by the EU as an (EAEC/CPVO) for the plant varieties to make expert assessments on its behalf in terms of distinctness, uniformity and stability of new varieties, to provide legal protection in the EU.

### **Administration of state aid**

Pursuant to a contract for granting of state aid to promote the production and use of quality seeds and propagating material, in 2021 EAPVTASC provided services to farmers related to:

- field inspection of seed crops and common nursery plantations; labelling;
- sampling of seed batches, intended for certification;
- laboratory analysis of seed samples by groups of crops;
- post-control of seed batches;
- qualification of certified and CAC fruit and certified and standard vine planting material.

The quality scheme introduces additional and some higher requirements to the production process and the final product and guarantees higher quality of the produced seeds and propagating material from the following groups of crops: cereals, feed, oilseeds, potatoes, tobacco, cotton, certified and CAC fruit seedlings, certified and standard vine seedlings and certified and standard vegetable seeds.

The total value of the services provided by EAPVTASC under this scheme in 2021 amounted to BGN 1,121,069.

State aid is a prerequisite for achieving significant added value in the use of certified seeds. The beneficiaries are just over 420, but the positive effect of producing more and better quality products per unit area and improving the agri-environment of agricultural production are beneficial for the whole society.

### **Publication of an official variety list of the Republic of Bulgaria**

In 2021, EAPVTASC regularly exchanged information with the European Commission, Member States and other international institutions regarding the names, entries and de-registration of plant varieties in and from the official variety list, as well as the trade in seeds and propagating material.

The official variety list of the Republic of Bulgaria is part of the European catalogs of varieties of field and vegetable crops, which allows varieties of Bulgarian selection to be present on the EU free market. The official variety list is published on the Agency's website and it is updated promptly after the entry of new plant varieties. Under the Law on Protection of New Varieties of Plants and Breeds of Animals, the Agency carries out substantive examination of the distinctness, uniformity and stability of new plant varieties, on the basis of which the Patent Office issues a certificate of protection.

In 2021, 1,007 varieties (compared to 1,080 in 2020) of the following types of agricultural plants were entered in the official variety list: field species - 552, vegetable species - 274, orchard species - 38, vine - 108, tobacco - 14, medicinal and aromatic species - 12, and species outside the scope of Directives 2002/53/EC and 2002/55/EU - 9 species.

Of these, 240 species are protected in the country with a certificate of legal protection issued by the Patent Office, as follows: field species - 172, vegetable species - 42, vine - 15, tobacco - 7, species outside the scope of Directives 2002/53/EC and 2002/55/EU - 4 varieties.

### **Carrying out variety testing for distinctness, uniformity and stability, soil control, biological and economic qualities and preliminary testing of new plant varieties**

In 2021, a total of 824 species, hybrids and lines were planted and tested (786 for 2020), with 344 of them under signed contracts for species testing and 490 - similar species, and a comparative collection to prove the distinctiveness of the requested new species (277 and 509 for 2020, respectively). There were 43 field trials for DUS, 35 ground control trials and one DUS trial with silkworm. The comparative variety collection (seeds, material from vegetatively propagating plant species and official variety descriptions), maintained by EAPVTASC includes 7,853 varieties (compared to 7,210 in 2020) of 81 crop species.

In order to obtain legal protection on the territory of the country, 10 papers were prepared and sent to the Patent Office (compared to 17 for 2020), final reports and official variety descriptions.

During the year, 9 varieties of sunflower were tested for DUS under a contract by the CPVO, and 1 variety of wheat (two-grain spelt x durum wheat). At the request of the Slovenian office, for the purpose of entry into the national variety list of Slovenia, 1 variety of multi-colored bean was tested, and at the request of the Hungarian office - 3 varieties of peanuts.

Out of the total number of sown/planted varieties, 599 are field, 189 vegetable, 5 essential oils and medicinal, 29 fruit and vine, and 2 silk butterfly hybrids. Compared to the previous year, there was an increase in field and fruit species and vines, and a decrease in vegetable species.

By types of agricultural crops, the variety test for DUS is distributed as follows:

- 19 types of field crops (compared to 19 in 2020);
- 12 vegetable crops (compared to 11 in 2020);
- 2 essential oils and medicinals (0 for 2020);
- 4 types of fruit and vine (4 for 2020);
- silk butterfly.

In 2021, 913 soil control samples were set (compared to 1,028 in 2020) from 35 types of agricultural crops, of which 908 were approved.

The total number of varieties, without varieties, standards, which are set and tested in tests for biological and economic qualities (VCU) for inclusion in list "A" of the Official Variety List and in preliminary tests, according to concluded contracts, was 1,163, with 40 more than in 2020.

Of these, 960 varieties have been set up and tested in preliminary testing (924 for 2020), and for BEP - a total of 201 varieties and 2 silk butterfly hybrids (201 for 2020).

The benchmark varieties included in the BEP experiments were 64, and in the preliminary experiments - 11. The number of standard varieties represented 6.1% of the total number of varieties in field trials (compared to nearly 6.8% in 2020). The varieties of standards and their number in the VCU tests are in compliance with the methodological requirements for the respective types of agricultural crops.

The total number of observed and reported varieties applied for variety testing for VCU and preliminary testing, together with the standard varieties was 1,238 (compared to 1,207 for 2020), which is the full volume of variety testing for VCU and preliminary testing.

Of the varieties tested for VCU and preliminary testing, 1,163 or 95.3% are foreign selection (at 94.9% for 2020), and 4.7% - Bulgarian selection (at 5.1% for 2020). Compared to 2020, there was a decrease in the number of tested varieties of Bulgarian selection.

121 final reports have been prepared by the expert commissions for DUS.

In 2021, 9 meetings of expert commissions were held to discuss the results of the tests of new varieties by crop groups. 26 varieties of Bulgarian selection and 39 varieties of foreign selection were tested (31 and 66 for 2020, respectively). 61 varieties were recognized for inclusion in list "A" of the official variety list of the Republic of Bulgaria, of which 22 are Bulgarian selections.

In 2021, 147 contracts for variety testing were concluded, with a decrease of 2% compared to 2020.

Throughout the year, 57 permits were issued and 11 were updated, according to art. 39a of the Law on Seed Production and in compliance with Commission Decision 2004/842/EC, which supports the business in terms of production and trade in seeds in the agricultural sector.

**Keeping a public national electronic register of the persons who trade in sowing and/or planting material, under art. 28, para. 4 of the LSS**

In order to regulate the trade in seeds and propagating material, EAPVTASC keeps a public national electronic register of persons, trading in seeds and/or planting material, which enables users and other administrative units to find quickly information on registered persons by crop groups.

In 2021, a total of 195 trade certificates were issued - 20.4% less than in 2020, with 28 entities deleted from the register.

### **Certification of sowing and propagating material**

The certification of seed and propagating material was carried out in accordance with the requirements of the procedures of the quality management system and the "Quality scheme for production of quality seeds and propagating material".

In 2021, applications for certification were received for 31,732 ha of seed production crops from different crop groups (34,436 ha in 2020).

The total area of inspected crops of field and vegetable crops by EAPVTASC inspectors amounted to 31,447 ha (2,684 ha less than in 2020). Of the inspected varieties of agricultural plants, the largest share is occupied by the group of cereals - 29,517 ha (93.6%), followed by feed - 859 ha (2.7%), oil- and fiber-producing - 815 ha (2.6%), potatoes - 252 ha (0.8%), vegetable species - 92 ha (0.3%), and tobacco - 4 ha.

After the field inspections, 54 ha (0.2%) were downgraded to a lower category than the one requested for certification, and 3 ha were rejected due to lower indicators than required by the regulations under Art. 29, para. 6 of the LSS.

In connection with the legalization of the seed packages, a total of 313,818 labels were printed, of which 42,971 in the Northern Certification and Seed Control Region and the rest in the Central Laboratory Department.

For the purposes of certification, 4,379 samples were taken from homogeneously prepared seed batches. 443 samples were taken from individuals (samplers) who received permission from the Executive Director of EAPVTASC under the terms and conditions of Ordinance No. 8 of October 31, 2016.

In 2021, 48 ha of vine nurseries, 38 ha of nursery vineyards and 20 ha of nursery rows were inspected. 751 field inspection citations were issued.

A total of 2,057,100 vine propagating material was qualified, of which 382,800 improved vines, 1,281,800 rootstock cuttings and 392,500 graft cuttings. 124,200 pieces of fruit planting material were also qualified.

Field inspections were carried out on 6 ha of oil rose rootstocks, including 3 ha of the "pre-basic" category and 3 ha of the "certified" category. 9,400 pieces of propagating material of the "Eleyna" and "Yanina" varieties have been certified. 0.1 ha of lavender rootstock, "pre-basic" category of the Institute of Rose and Essential Oil Crops, were also inspected.

### **Control activities under GMOA and LSS, including import of seeds and propagating material from and to third countries**

In 2021, more than 700 document and on-the-spot checks were carried out. The GMO inspections did not detect the presence of GMOs in conventional seed batches.

Effective control was exercised during harvesting and marketing of seeds and propagating material. During carried out inspections, the inspectors took 205 samples for control analysis. The results of the analyses show that the seeds meet the minimum germination requirements. For the results from the inspections, inspection checklists and statements of findings with precepts were issued, in cases of established irregularities.

At the request of producers, 148 samples of hemp plants were taken to quantify the content of tetrahydrocannabinol in hemp varieties at the request of producers and during varietal testing.

10 batches of raw hops were sampled and certified.

## **Expected data for 2022**

In the first half of 2022, the following legislative acts were adopted (promulgated in State Gazette, issue 26 of 01.04.2022 and issue 41 of 03.06.2022);

- Ordinance amending and supplementing Ordinance No. 21 of 2007 on trade of propagating material of cereals;
- Ordinance amending and supplementing Ordinance No. 96 of 2006 on trade of propagating material of vegetable crops on the European Union market;
- Ordinance amending and supplementing Ordinance No. 98 on trade in beet propagating material on the European Union market;
- Ordinance amending and supplementing Ordinance No. 99 of 2006 on trade of propagating material of feed crop on the European Union market;
- Ordinance amending and supplementing Ordinance No. 100 of 2006 on trade of propagating material of oil- and fiber-producing crops on the European Union market.

In 2022, EAPVTASC continued to provide services related to the application of state aid for participation of farmers in a quality scheme for production of seeds and propagating material. The estimated maximum annual aid budget for 2022 amounted to BGN 1.2 million.

The applications for certification of sowing and planting material from spring and perennial crops were registered in time.

In 2022, a total of 30,568 ha were applied for a field inspection.

Of the declared seed production crops, the largest share was occupied by the group of cereals - 28,385 ha (92.9%), followed by oil- and fiber-producing crops - 1,301 ha (4.2%), feed - 601 ha (2%), and 239 ha of potatoes (0.8%). Seed production crops of vegetable crops - 38 ha, tobacco - 3 ha, and beets - 1 ha were also declared.

62 ha of vine rootstocks, 6 ha of medicinal and aromatic plant rootstocks have been applied for certification/approval and 0.1 ha vegetative nursery of fruit rootstocks.

The Agency continues to control the harvesting and marketing of seeds and propagating material. Seeds that do not meet the minimum germination requirements are suspended from marketing.

There are 140 variety testing contracts concluded for the financial year 2022, 5.4% less than in 2021. CPVO applied for testing of 6 varieties in order to obtain legal protection on the territory of the EU.

In 2022, the number of varieties declared for DUS testing increased by nearly 7% on an annual basis - from 344 to 368.

Variety testing for VCU for inclusion in list "A" of the Official Variety List of the country increased by about 6%. The number of varieties declared and included in VCU trials was 215, compared to 203 for 2021.

Varieties in preliminary testing decreased compared to 2021 - from 1,007 to 960 pieces.

Of the varieties included in VCU testing and preliminary testing in 2022, 1,080 were foreign selection (6.5% less than in 2021), and 60 - Bulgarian selection (5 more than in 2021).

3 meetings of expert commissions for DUS and 11 meetings of expert commissions for VCU were held to discuss the results of the testing of new varieties by groups of crops and to make decisions for inclusion in lists "A" and "B" of the official variety list of Republic of Bulgaria. For DUS, 132 varieties were discussed and recognized (9.1% more), and for VCU - 81 (24.6% more). 67 varieties were recognized.

## **6. Food chain safety**

EU food safety policy aims to ensure a high level of protection of human health and consumer interests in food, including traditional products, as well as the effective functioning of the internal market.



The Ministry of Agriculture manages, coordinates and controls the implementation of state and EU policy in the field of food safety and animal health and through its specialized administration.

The Agri-Food Chain Policies Directorate assists the Minister of Agriculture in developing, coordinating and implementing state policy in the field of food and feed quality and safety, animal health, plant health and plant reproductive material.

The optimization of the regulatory framework in the field of food and feed safety, animal health and animal welfare, plant health, plant reproductive material and plant protection products will continue in 2021.

The Bulgarian Food Safety Agency (BFSA) conducts official food control on a farm-to-table basis, following the best European practices in the application of high standards in the control of food safety and quality, food additives and beverages, veterinary activity, animal health and welfare, plant protection and fertilizers, phytosanitary control, feed control, border control, etc.

## **6.1. Animal health and welfare.**

### **Animal health**

The priority tasks of the BFSA in this area are:

- protection of animal health in the country;
- protection of the health of farm animals against dangerous viral infections associated with major economic losses;
- ensuring the production of raw cow milk compliant with the requirements in accordance with European legislation;
- free movement of animals, products and raw materials obtained from them between Member States and exports to third countries;
- protection of the population from the occurrence of zoonoses (diseases transmitted from animals to humans).

To achieve these priorities in 2021, a scheme to assist farmers in implementing the measures set out in the National Program for Prevention, Surveillance, Control and Eradication of Animal Diseases and Zoonoses in the Republic of Bulgaria for the period 2019 - 2021 continues to be implemented.

In 2021, the mandatory measures set out for implementation of the National Program for Prevention, Surveillance, Control and Eradication of Animal Diseases and Zoonoses in the Republic of Bulgaria for the period 2019 - 2021 were implemented.

The activities of the BFSA are aimed at reducing the risk of the occurrence and spread of acute and exotic infectious animal diseases, given the geographical location of our country. To this end, national disease surveillance programs are being implemented, namely:

- Program for surveillance of avian influenza in poultry and wild birds;
- Program for control and eradication of rabies;
- Program for supervision of bluetongue in ruminants;
- Program for supervision and eradication of classical swine fever;
- Program for control of salmonellosis in laying hens, broilers, breeding flocks and turkeys;
- Program for supervision of Transmissible Spongiform Encephalopathies (TSE);
- Program for precautionary measures against some cross-border animal diseases, which includes contagious nodular dermatitis in large ruminants, foot-and-mouth disease in large ruminants, small ruminant plague and smallpox in sheep and goats.

All the above programs are co-financed by the European Commission.

In 2021, the official veterinarians performed 9,996 inspections in relation to the Program for prevention, surveillance, control and eradication of animal diseases and zoonoses (compared to 15,959 in 2021). The established violations were 388 as 405 precepts were served and 78 citations for established administrative violations (CEAV) were drawn up.

During the year, the following diseases of higher importance were found on the territory of the country, included in the list of priority diseases according to the European legislation in the field of animal health: highly pathogenic influenza (14 outbreaks, including: 2 in Haskovo District, 1 in Stara Zagora District, 1 in Pazardjik District, 6 in Plovdiv District and 4 in Pleven District), African swine fever in domestic pigs (52 outbreaks, affecting 13,322 animals), African swine fever in wild pigs (325 outbreaks with 518 affected animals).

Given the identified outbreaks of bluetongue in 2014 and contagious nodular dermatitis in 2016, in order to protect animals susceptible to these diseases and to protect livestock in the country, vaccination against bluetongue, serotype 4 and against infectious nodular dermatitis was carried out in 2021.

In accordance with the requirements of Directive 2005/94/EU and the Plan of Emergency Measures for Control of Avian Influenza, the BFSA took immediate measures to eradicate all infected and contact ducks in the outbreaks.

In 2021, five outbreaks of bovine tuberculosis were registered in the Pazardzhik District and one in the Plovdiv District.

In connection with the complicated epizootic situation with regard to African swine fever in Europe and the outbreaks identified in 2021 in Bulgaria, the following measures were taken in accordance with Council Directive 2002/60/EC, Commission Implementing Decision (EU) 2014/709, EU Strategy for ASF Control - SANTE/7113/2015 – Rev. 10:

- Supervision program;
- Control of the movement of people, animals, products, including personal luggage from countries where there is ASF;
- Confiscation of meat products, testing and disposal;
- Disinfection of vehicles coming from ASF countries;
- Disposal of waste from vehicles from countries with AS;
- Biosecurity inspections in pig farms;
- Development of individual contingency plans for pig farms;
- Regular meetings with the sector, EFA, hunting organizations;
- Biosecurity training for the sector and for hunters;
- Reduction of backyard farms around industrial farms;
- Prohibition of fresh grass feeding and special measures with regard to feed;
- Development of a mobile application for trichinella and ASF samples;
- Prohibition on the movement of wild boar from other EU Member States and for imports from third countries;
- Training of hunters on ASF issues, sampling, biosecurity, including material development;
- Construction of special pits for carcasses and animal by-products for each hunting holding;
- Fence along the border with Romania;
- Obligation to report any wild boar found dead or showing atypical behavior to the RFSD;
- Special regime, restrictions on hunting in restricted areas;
- Information campaigns;

- Coordination between institutions in order to reduce the risks of spread in transport and tourism;
- Additional national requirements such as pre-movement notification and permission received from the receiving RDFS (valid for sites from both Part I and Part II of Decision (EU) 2014/709); Biosecurity, contingency plans, incl. and during transportation (valid for sites from both Part I and Part II); laboratory tests to identify the pathogen of ASF and when moving from sites of Part I to regions in southern Bulgaria (examination of the carcasses within 24 hours before the transport - by a registered veterinary doctor).

### Animal Welfare

The Bulgarian Food Safety Agency monitors compliance with the requirements for animal health and welfare and the implementation of legislation in these areas.

The control of animal welfare is carried out through official inspections by the Regional of Food Safety Directorates (RFSD) at all stages of animal breeding, including during their transport. The inspections were planned, periodic, on signal, investigative, follow-up and on the basis of risk analysis, which is based on the detected non-conformities in the rearing of the different types of animals, as well as the detected non-conformities during their transportation.

**Table V.6. Percentage of compliance with animal welfare requirements per sectors in the period 2020-2021.**

Category	Laying hens		Pigs		Calves		Large ruminants		Sheep		Goats		Ducks	
	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021
Inspected production sites - number	155	163	176	353	436	460	2,042	2,103	1,915	1,610	270	352	112	154
Production sites without discrepancy - number	150	145	172	337	342	368	1,362	1,600	1,413	1,314	221	299	111	140
% of compliance	96.8%	89.0%	97.7%	95.5%	78.4%	80.0%	66.7%	76.1%	73.8%	81.6%	81.9%	84.9%	99.1%	90.9%

Source: BFSA

Based on the percentage of the established non-compliances related to failure to comply with the welfare requirements for animals kept in production facilities for 2021, it is established that the compliance rate in the sectors of large and small ruminants has increased significantly compared to 2020. The reason for this is the intensified control by the RFSD.

In the sectors of laying hens, pigs, and ducks, there was a slight decrease in the compliance rate.

According to the current legislation, the BFSA has taken actions to eliminate the discrepancies within the statutory period, without taking immediate actions to impose administrative and criminal sanctions.

During the year, there is improvement in animal husbandry conditions in terms of providing food and water suitable for the species, freedom of movement, inspections, injuries, automatic and mechanical equipment and staff competence. The data show that the qualifications of the staff taking care of the animals are not at an optimal level. In this regard, the BFSA has taken measures for additional training.

In 2021, the issuance of permits (licenses) to transport live animals continued, which ensures compliance with the rules of animal welfare and protection during transport. In 2021, 134 licenses were issued for short transportations and 56 for long transportations.

During the year the interaction continued with the submission of signals from the BFSA and other contact points regarding the established violations of the requirements for animal welfare during transport.

In 2021, 5 notifications of infringement of the requirements of Regulation (EC) № 1/2005/EC were sent to the contact points of other Member States, most of which were found by the official veterinarians at Captain Andreevo Border Checkpoint.

The main types of established infringements are: exceeded travel time, lack of guarantees under Art. 21, 1 (e) of Regulation (EC) № 1/2005/EC; scarce and/or insufficient bedding; unapproved object of final destination. In 2021, there is a decrease in the identified non-conformities in the implementation of the requirements of the regulation.

Based on the data obtained from the inspections carried out at the Kapitan Andreevo border checkpoint, there is an increase in the percentage of compliance with the requirements of Regulation (EC) № 1/2005 for the transport of live animals to Middle Eastern countries. On the other hand, violations found and notifications received in the transport of pets (dogs and cats) have increased significantly in recent years.

In 2021, total of 46,239 inspections were carried out. During the year, the total number of cases of non-compliance with the requirements for the welfare of animals during transport were 71 and they were all sanctioned.

In order to ensure the welfare of animals transported from Bulgaria to Turkey, the BFSA requires that all means of transport used be approved and meet the requirements for the transport of animals lasting more than 8 hours, although the required transport time is less than 8 hours. In relation to the infringements found, periodic inspections are carried out to ensure compliance with the requirements of Regulation (EC) № 1/2005, as well as retrospective assessments of consignments of live animals destined for Turkey.

Official controls carried out on farms and during the transport of live animals are improved on the basis of periodic training of official veterinarians, and also as a result of joint meetings with all stakeholders on animal welfare.

In 2021, roadside inspections during transport, together with the bodies of the Ministry of Interior, will continue in order to fully strengthen controls and end the practice of transporting live animals in unlicensed vehicles.

Pursuant to Art. 155, para. 7 of the VAA, in 2021 a total of 36 permits for use of animals in experiments were issued, compared to 30 in 2020. In accordance with European legislation, a register of permits issued for use of animals in experiments was published on the BFSA website.

The Bulgarian Food Safety Agency has prepared an annual report for 2021 on the implementation of the municipal programs for control of stray dog population. A report was approved on the implementation of the National Program for Control of Stray Dog Population on the territory of the Republic of Bulgaria for 2021.

The BFSA keeps up-to-date registers of shelters and kennels in Bulgaria, available on the Agency's website.

## **6.2. Animal identification and veterinary activities control**

The activities performed by the BFSA in this area are the following:

- Identification and registration of farm animals (large, small ruminants, pigs, equidae), bee colonies, pets;
- Registration of breeding sites in accordance with the national legislation;
- Ensuring timely entry of correct data in the IIS registers of the BFSA Integrated Information System (VetIS) in connection with the implementation of the National Program for Prevention, Surveillance, Control and Eradication of Animal Diseases and Zoonoses in Bulgaria;
- Conducting trainings with a focus on animal identification, registration of livestock farms and veterinary activities;
- Providing up-to-date and correct information maintained in the IIS registers and entering the information in the additionally developed module to the Integrated Administration and Control System (IACS), maintained by the Agriculture State Fund;

In 2021, the work on developing the existing and adding new functionalities in VetIS continued for the purposes of official control, as well as in connection with improving the user experience.

In April 2021, the Commission Implementing Regulation (EU) 2021/520 of 24 March 2021, laying down rules for the implementation of Regulation (EU) 2016/429 of the European Parliament and of the Council regarding the traceability of certain farmed terrestrial animals with requirements related to animal identification and the electronic access system, was enforced.

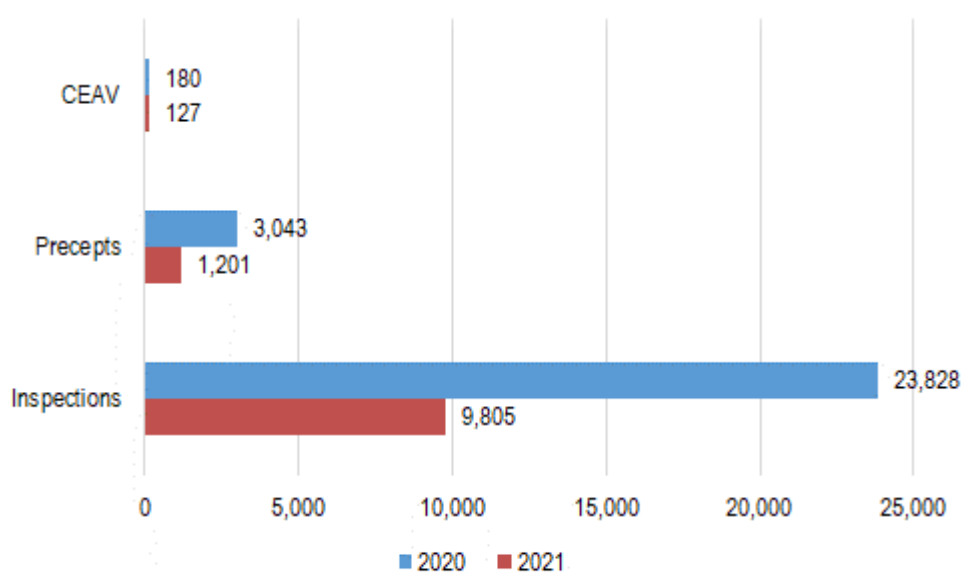
The Commission Implementing Regulation (EU) 2021/963 of 10 June 2021 laying down rules for the implementation of Regulations (EU) 2016/429, (EU) 2016/1012, and (EU) 2019/6 of the European Parliament and of the Council regarding the identification and registration of equidae and establishing model identification documents for these animals, was enforced in 2021.

The amended and supplemented Ordinance No. 6 of 08.10.2013 on the requirements for means of official identification of animals and their use, conditions, order and control of collection, input, maintenance and use of information in the BFSa Integrated Information System was enforced on 23.02.2021, with specified new requirements for the identification of small ruminants and pigs, in accordance with the changes in the European legislation.

The amended and supplemented Ordinance No. 44 of 20.04.2006 on the veterinary medical requirements for animal breeding sites, in the part related to aquaculture sites, was enforced in January 2021.

Ordinance No. 61 of 09.05.2006 on the terms and conditions for official identification of animals for which there are no requirements in the European Union regulation in the part for official control and inspection of livestock facilities and pig identification, was also amended.

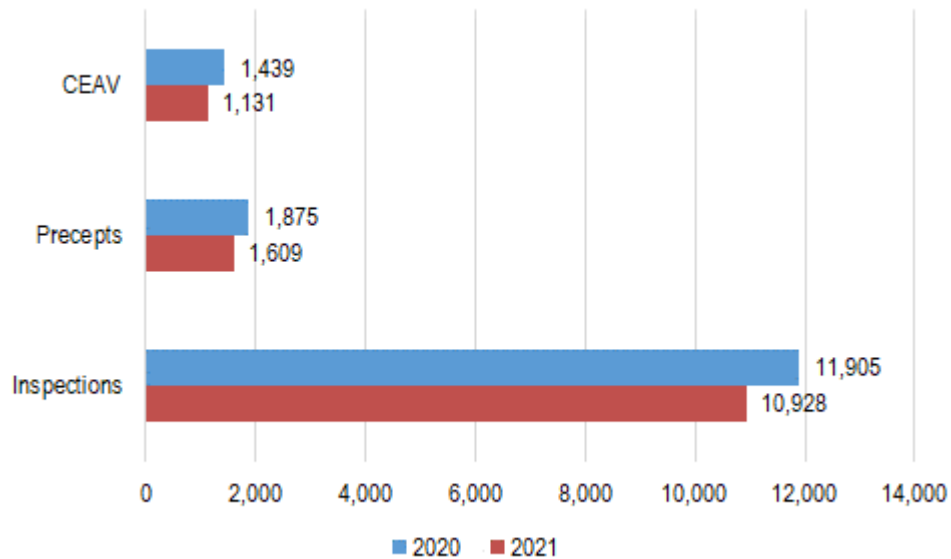
**Figure V.1. Control on the registration of animal breeding sites in 2020 and 2021**



Source: BFSa

When comparing the results with the previous year, a significant decrease in inspections in the field of registration of animal breeding facilities can be noted - from 23,828 in 2020 to 9,085 in 2021. The difference is mainly due to the fact that in 2020 the legislation was changed with the aim of significantly easing the registration process of animal breeding sites of the private holdings type. A similar trend of reduction is found in the issued precepts, respectively the delivered CEAV.

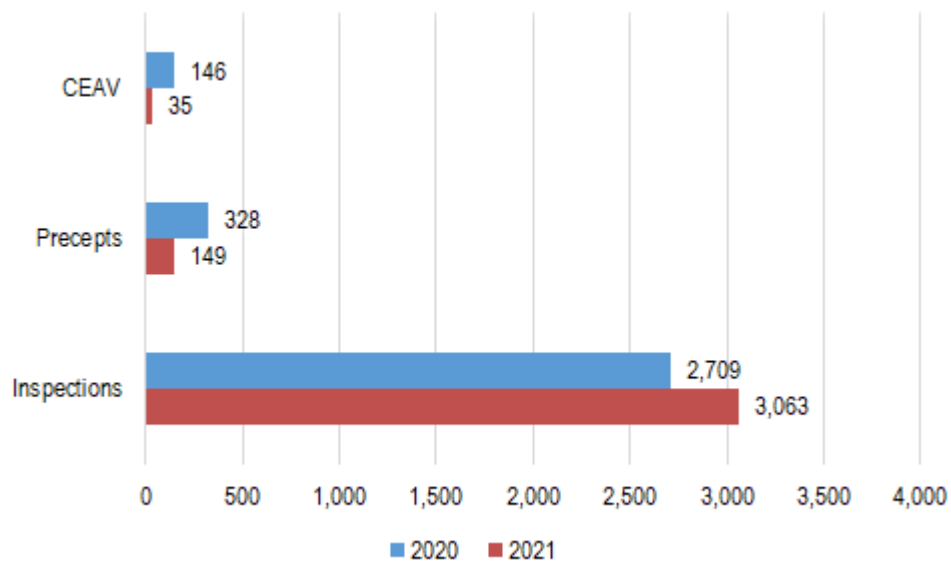
**Figure V.2. Animal identification control in 2020 and 2021**



Source: BFSA

In terms of animal identification control, in 2021 there is a certain decrease in indicators compared to 2020. This is valid both for inspections and for issued precepts and delivered CEAVs.

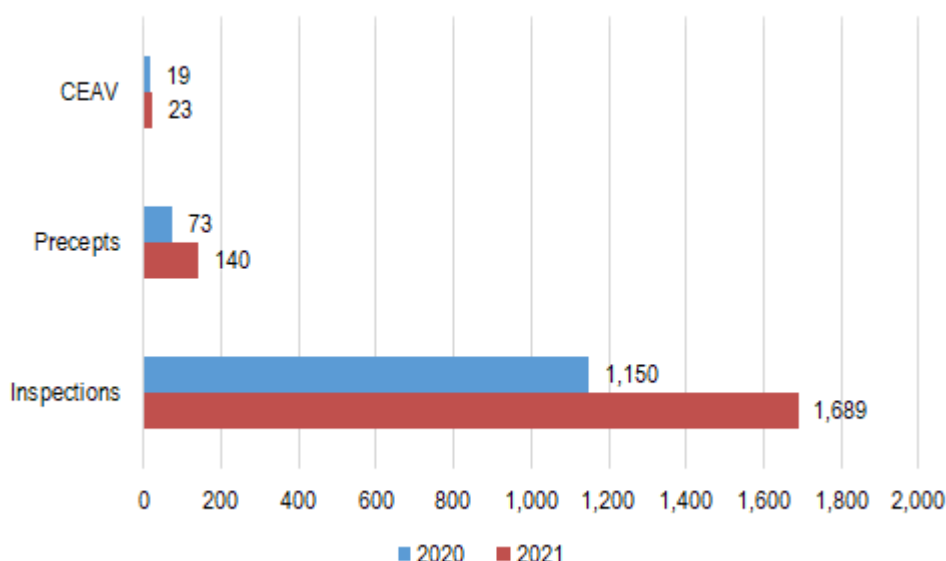
**Figure V.3. Control on the activities of registered veterinarians, including the implementation of the National Preventive Program, in 2020 and 2021**



Source: BFSA

The data on the control of the activities of the registered veterinarians (RV) indicate an increase in inspections compared to 2020. This is related to the completion of the period for the implementation of the National Program until 2021, as well as an audit of the bank accounts of the RV that signed a contract with RDFS. However, the precepts and CEAVs show the opposite trend.

**Figure V.4. Control on the veterinary medical facilities in 2020 and 2021**



Source: BFSA

The number of inspections of veterinary medical facilities (VMF) in 2021 increased compared to the previous year. A similar trend is observed in the issuance of precepts. The increase of issued CEAV is negligibly low. The data shows a tendency to maintain the control exercised over VMF.

In 2022, the control related to the identification and registration of animals and veterinary activities continues to pursue the main operational objectives set:

- Ensuring the timely identification and registration of animals, their traceability, as well as registration of livestock farms in accordance with the VAA, which contribute greatly to ensuring the protection of human and animal health and protection against fraud;
- Ensuring timely entry of correct data in the IIS registers of the BFSA - VetIS on the identification and registration of animals, as well as data related to the implementation of the National Program for Prevention, Surveillance, Control and Eradication of Animal Diseases and Zoonoses in Bulgaria;
- Reporting on the activities performed by the registered veterinarians under the National Program for Prevention, Surveillance, Control and Eradication of Animal Diseases and Zoonoses;
- Livestock service activities;
- Development of the Integrated Information System of BFSA - VetIS.

The fulfillment of these objectives will be achieved through:

- Carrying out checks for compliance with the requirements of the legislation related to the identification and registration of animals, their traceability, the activities of veterinary specialists, including in veterinary establishments, based on risk criteria and prepared sample, and sending to RFSD information about the farms, included in the sample;
- Work and processing of documentation related to the programs for support of agricultural producers;
- Inspections in connection with the preparation of reports of agricultural manufacturers (certification of questionnaires, etc.);
- Trainings for employees of the Regional Food Safety Directorates;
- Preparation of drafts for amendment of regulations;
- Improving individual controls in VetIS (the BFSA Integrated Information System).

In 2022, research and consultations began for establishing the necessary resources to migrate the VetIS Integrated Information System to the State Hybrid Private Cloud. In addition, the BFSA has outsourced an assessment of the resources required to perform the migration and once the performance report is provided, the manner in which the migration will be carried out will be assessed.

### 6.3. Control activities

#### 6.3.1. Food Safety

The BFSA methodically manages and coordinates the activities of the RFSD to control the safety and quality of raw materials, food, including those with protected geographical names, organic products, as well as materials and articles intended for contact with food, food additives, enzymes and flavorings; intermediate storage and animal by-products processing plants; animal welfare during slaughter.

By maintaining a web-based system for national registers and lists of BFSA-controlled sites, the access of users, business operators and institutions to up-to-date information about the registered sites on the territory of the country is facilitated. The total number of registered sites and vehicles in the scope of control by the RFSD for 2021 was 254,634.

The Food Act, entered into force in 2020, introduces requirements to the BFSA for creation and maintenance of registers containing information about the registered and approved food establishments on the territory of Bulgaria. The BFSA is obliged to maintain on its website a public national register of business operators, sites for production, processing and/or distribution of food and food supplements and foods intended for use during intense muscular activity. The adoption of these National Electronic Registers will ensure transparency in the activities related to the registration and approval of sites in the BFSA.

The official control of food in Bulgaria is carried out adequately, in full compliance with the requirements of the European and national legislation. Based on risk analysis, effective official control over food safety is carried out in food production, wholesale and retail food establishments and catering establishments. Additional thematic inspections (winter and summer tourist season, official and religious holidays, etc.) and inspections on signals are carried out.

**Table V.8. Official control carried out in 2021**

Inspections	2021
1. Sites for food production and wholesale	43,514
1.1 Audits	1,672
1.2 Inspections	28,901
1.2.1 Traceability inspections (Regulation 178/2002)	11,051
1.2.2 Inspections for general hygiene requirements (Regulation 852/2004)	17,397
1.2.3 Inspections for specific hygiene requirements for food of animal origin (Regulation 853/2004)	6,495
2. In retail establishments and restaurants	169,565
<b>Total number of inspections performed (planned, thematic, on signal)</b>	<b>219,716</b>
3. Measures taken by the official control	
3.1 Issued CEAVs (number)	838
3.2 Issued precepts (number)	6,254
3.3 Prohibited and discarded food (kg)	86,818
3.4 Closed sites/sites with temporarily suspended activity (number)	60

Source: BFSA



In 2021, a total of 219,716 official control inspections were carried out in establishments for production, wholesale and retail in food and catering establishments, thematic inspections, unscheduled inspections and inspections on signals and complaints.

The established non-conformities concern:

- Structural non-conformities concerning the buildings and equipment at the sites;
- Operational non-conformities regarding the implementation of activities related to product safety;
- Non-conformities related to the self-control systems of business operators;
- Inconsistencies in labeling and presentation of consumer information;
- Gaps in food traceability;
- Foods that do not meet statutory safety requirements;
- Non-compliance with anti-epidemic measures introduced to limit the spread of COVID - 19.

The analysis of the average values of effectiveness of the official control performed in 2021 shows that: on average, every 35th inspection resulted in issuance of a precept (compared to every 19th in 2020); on average, every 262th inspection ends with drawing up of a citation for an administrative violation (compared to every 168th for 2020).

The results of official inspections show that a risk-based approach to planning and implementation of official inspections is appropriate and effective in detecting non-conformities and ensuring food safety.

In 2021, the BFSA Head Office received 7 notifications of suspected food poisoning by the RFSD throughout the country. In the joint inspections and an epidemiological study with representatives of the Regional Health Inspectorates, food traceability and sampling for food and personnel analysis, it was not proven that the source of the disease was the food consumed.

### **Laboratory control**

The BFSA manages and coordinates the implementation of national and monitoring programs for laboratory control, as follows:

- National Program for Control of Quality Characteristics of Foods (NPCQCF);
- National Program for Control of Pesticide Residues in or on Foods of Plant and Animal Origin (NPCPR);
- National Program for control of food and food contact and additives, chemical and microbiological contaminants and control of food treated with ionizing radiation;
- National Program for Control of Genetically Modified Foods (NPKGMH);
- Program for monitoring and reporting of antimicrobial resistance of zoonotic and commensal bacteria in the Republic of Bulgaria (AMR);
- National monitoring program for control of residues of veterinary medicinal products and pollutants from the environment in live animals and products of animal origin (NMPRC);
- National program for the prevention, supervision, control and eradication of animal diseases, including zoonoses in the Republic of Bulgaria.

### **Implementation of programs for national and monitoring programs for laboratory control**

#### **• National Program for Control of Quality Characteristics of Foods (NPCQCF), 2021**

The control of food produced according to standards (national, approved or branch) was carried out by inspections of production sites and by sampling of commercially available food.

In 2021, 961 samples were planned, of which 553 samples were completed, as follows:

- Foods produced according to national, established, and industry standards: according to the approved Stara Planina standard - 67 samples (9 non-conforming samples); according to approved Bulgaria standard - 66 samples (3 non-conforming samples); according to branch standard for Lyutenitsa - 12 samples (1 non-conforming sample); according to the Branch Standard for refined sunflower oil - 7 samples (no non-conforming samples); according to the Bulgarian state standard for dairy products - 94 samples (20 non-conforming samples);
- Planned sampling of raw materials and foods of plant and animal origin to study the quality characteristics of: table salt, honey, energy value of foods, foods with nutritional claims, for the presence of non-dairy fats used in dairy products, absorbed water in poultry carcasses and poultry cuts, and olive oils - 307 samples were examined (out of 659 planned). According to these indicators, a total of 9 inconsistencies were found.

In general, the detected non-conformities are less compared to the previous year. Administrative measures were taken in connection with the established violations, in accordance with the legislation.

- **National Program for Control of Pesticide Residues in and on Food (NPCPR), 2021**

In 2021, a total of 358 food samples are planned under the NPCPR, of which 180 samples, incl. 10 from organic production, were taken according to Commission Regulation (EU) No. 2020/585 of April 27, 2020. This includes 150 samples of food of non-animal origin and 30 samples of food of animal origin.

In addition, 178 samples were taken based on data and analyzes from national measures and studies - 163 samples of foods of non-animal origin (fruit and vegetables), 10 samples of processed cereal-based baby foods, and 5 samples of transitional foods.

Of the total number of samples, 62 samples were not completed, due to lack of financial means for research in external laboratories, or lack of production.

As a result of the analyzes carried out, 21 non-conformities were found (compared to 7 in 2020). The reported increase in the number of non-conformities compared to the previous year also suggests an increase in vigilance regarding pesticides.

- **National Program for control of food and food contact and additives, chemical and microbiological contaminants and control of food treated with ionizing radiation 2021**

In implementation of this program, laboratory analyzes were carried out as follows:

- The following number of samples were tested for microbiological contaminants: from production enterprises - 21,752 samples; from the commercial network - 4,708 samples; from sites under Ordinance No. 26 of 2010 - 508 samples. 782 non-conformities were found in the microbiological contaminant tests. The performance for microbiological contaminants is 100%;
- For the content of chemical pollutants (mycotoxins, heavy metals and nitrates) in products of plant and animal origin, a total of 285 samples were examined at the Central Laboratory for Chemical Testing and Control (CLCTC), the Central Laboratory for Veterinary-Sanitary Expertise and Ecology (CLVSEE) and testing laboratories at RDFS. 2 non-conformities were found. Unscheduled testing for 16 indicators of 4 baby foods was carried out;
- A total of 20 samples were tested for histamine.

During the implementation of the plan, 29 samples (for nitrates and heavy metals - lead and cadmium) of fruit and vegetables were scheduled and taken by the RDFS, which were sent for testing to CLCTC, and no non-conformities were found.

The non-conforming results of samples taken by the inspectors at the RDFS for chemical pollutants are 4 total: inorganic arsenic (2 samples), lead and aflatoxin B1, B2, G1, G2 (1 sample each).

In 2021, under the Program, a total of 26,798 samples of foods of plant and animal origin were taken, compared to 54,947 samples in the previous year. There is a trend towards an increase in the detected non-conformities (especially with regard to the microbiological criteria), which reached 782 (compared to 333 for

2020).

- **Program for monitoring and reporting of antimicrobial resistance of zoonotic and commensal bacteria in the Republic of Bulgaria (AMR) 2021**

During the implementation of the program, taking samples of cecums (cecal content) from pigs and samples of prepackaged, chilled meat from pigs and large ruminants from the commercial network of the country is mandatory. This is also true for imports from third countries.

In 2021, 150 pork samples, 150 ruminant meat samples and 190 faecal samples were completed. The program was 100% implemented during the year.

- **National Program for Control of Genetically Modified Foods (NPCGMF), 2021**

In the control of genetically modified foods in 2021, 78 samples are planned for laboratory testing of raw materials, ready-to-eat foods, baby foods and food for young children based on soy and/or corn, baby formula, and rice and rice products. During the implementation of the program, only 6 samples were taken.

8 samples of food from organic production were taken within the program. Pursuant to Commission Decision 2013/287/EU of 13 June 2013 amending Implementing Decision 2011/884/EU on emergency measures regarding unauthorized genetically modified rice in rice products originating in China.

In the control of genetically modified foods for the first quarter of 2022, 2 samples were taken for laboratory testing.

- **National monitoring program for the control of residues in live animals and food of animal origin (NMPRC), 2021.**

The official control regarding residues of VMPs and contaminants in live animals and food of animal origin is carried out through the implementation of the National Monitoring Program for Residue Control (NMPRC) for 2021, approved by the European Commission (EC) and implemented in the period from April 2021 to December 2021. According to the requirements of the Program legislation, 4,185 analyzes of samples taken under official control on the territory of the country and 102 analyzes of samples taken during border control are planned. 3,642 analyzes of samples taken under official control on the territory of the country and 48 analyzes of samples taken during border control were carried out. No discrepancies were found.

- **National program for the prevention, supervision, control and eradication of animal diseases, including zoonoses in the Republic of Bulgaria:**

The main responsibility of the BFSA in relation to the program is to coordinate laboratory-diagnostic research, analysis and expertise related to animal health. In implementation of the program, the following diagnostic tests were performed in 2021:

**Table V.9. The diagnostic tests performed under the program in 2021.**

Disease	Number of laboratories	Number of samples examined
Brucellosis in large ruminants	10	179,879
Brucellosis in small ruminants	10	323,900
Brucellosis in rams	10	22,734
Leptospirosis	9	26,380
TSEs (BSE and scrapie)	3	70,507
Tuberculosis	1	17
Scabies	1	1,321
Plague in small ruminants	1	5,210

Disease	Number of laboratories	Number of samples examined
Rabies	1	Brain samples - 2,598 Blood samples - 719
Anthrax	1	10
African swine fever	3	56,444
Classical swine fever	3	13,624
Avian influenza	1	14,200
Newcastle bird disease	1	3,013
Scabies	1	6,830
Plague - small ruminants	1	5,510
Bluetongue	1	4,764
Equine infectious anemia	1	1,737
West Nile virus	1	2,074

Source: BFSa

### Audit of official controls in 2021

In 2021, the following audits were carried out by DG SANTE of the European Commission and third countries in the field of official food control:

- Audit by DG(SANTE) 2021-7160 to assess the food safety control systems in place that govern the production and marketing of fish products. Competence actions have been taken in relation to recommendations made in the report. Three "checklists" have been developed and updated: for the assessment of a fish processing enterprise; for inspection of the places of unloading and first sale of fish; for inspection of the hygienic and technological condition of a fishing boat.
- Remote audit DG (SANTE) 2022-7422 in order to assess the system of official controls on the import of animals and goods and verify the compliance of border control posts with EU requirements. Competency actions are taken in relation to the recommendations made in the report.
- Remote audit DG (SANTE) 2021-7275 aiming to assess the "Control system for the introduction of plants, plant products and other objects". Competency actions have been taken in relation to recommendations made in the report. It is expected that additional information on the recommendations will be provided to the European Commission by the end of 2022.
- Audit DG (SANTE) 2022-7637 in Bulgaria of the official control during the introduction of animals and goods into the EU through the Kapitan Andreevo border checkpoint and verification of its compliance with EU requirements. The Bulgarian authorities are invited to provide details of any actions taken or planned, including deadlines for their implementation, in response to the recommendations.
- Audit by the Korean competent authorities for the purpose of approving milk processing enterprises wishing to export Bulgarian dairy products.

### 6.3.2. Alert and Cooperation Network (ACN (RASFF + AAC))

The Rapid Alert System for Food and Feed (RASFF) was established by the European Commission to provide member states' control authorities with an effective means of exchanging information on measures taken in relation to identified serious risks in relation to food and feed and environmental protection. The rapid warning system for food and feed was established on the basis of Art. 50 of Regulation (EC) No. 178/2002. Regulation (EU) 2019/1715 defines the rules for its functioning. At a later stage, with Article 29 of Regulation (EC) No 1831/2003 of the European Parliament and of the Council of 12 January 2003 laying down the requirements for feed hygiene, the scope of the system was extended to cover serious risks to animal health and the environment caused by feeds. With the entry into force of Regulation (EU) No. 2017/625 of the European Parliament and of

the Council of 15 March 2017 on official controls and other official activities carried out to ensure the application of food and feed law, the rules on animal health and welfare, plant health and plant protection products ("Official Control Regulation") a network of competent liaison authorities was established for the purposes of the Administrative Assistance and Cooperation (AAC) system and the Food Fraud Network (FFN). With the planned upgrade and expansion of the RASFF, it is expected that risks related to the health of plants and plant products to be covered by Regulation (EU) No. 2016/2031 of the European Parliament and of the Council of 26 October 2016 on the protection measures against plant pests. The new "plant health" module is expected to be introduced in RASFF in late 2022.

In order to inform the general public about warnings related to health hazards in the Member States, the European Commission maintains an additional panel to the RASFF system - RASFF-Consumers' Portal (since 2021 it is part of RASFF NT (RASFF Window)), the access to which does not require registration.

The exchange of information is carried out in a clear and structured way using the iRASFF web-based application and enables rapid responses, timely actions, and a coordinated approach by Member States to threats to public health. The iRASFF platform has been repeatedly updated in 2021 to meet legislative requirements and ensure transparency and traceability in decision-making by competent authorities. A major focus of the iRASFF upgrade is the launch of an expansion process to include a plant health and legislation module in that area.

For effective operation of the RASFF system in Bulgaria, the following contact points were set up:

- National Contact Point of the Republic of Bulgaria, located in the specialized administration of the Ministry of Agriculture;
- Contact point at the Ministry of Health;
- Contact point at the Bulgarian Food Safety Agency.

For the period from 01.01.2021 to 31.12.2021, the total number of incoming notifications to the RASFF system, distributed by the contact point of the European Commission to the contact points of the member states, was 7,304 and the necessary actions were taken. Within the year, the percentage of notifications generated in RASFF, classified as "alert notifications" during market control, is the highest. These are followed by notifications classified as "border rejection notifications", followed by those "information notifications" and "follow-up notifications". There are 4,100 notifications in the "Food" sector, 236 in the "Feed" sector, and 269 in the "Materials and objects intended to come into contact with food" sector (for the first year, the latter outnumbered the notifications in the "Feed" sector). Notifications regarding established levels of pesticide residues above the maximum permissible limits in and on foods of plant origin from Turkey occupy the first place in terms of the number of notifications generated.

In terms of fraud notifications in the Food Fraud module, a total of 407 cases were generated for 2021, with the most common reasons for notifications being detected irregularities related to the movement of pets and fraud in the trade of fish and fish products, and with fats and oils. The main abuses are missing or falsified/incomplete documentation, incorrect labeling, etc.

Depending on the type, notifications are distributed as follows:

- Alert notifications - 1,455;
- Border rejection notifications - 1,457;
- Information notifications - 1,004;
- Follow-up notifications - 672;
- News notifications - 19.

Ethylene oxide was the most reported EU pesticide in iRASFF for the second consecutive year, followed by residues of chlorpyrifos, chlorpyrifos-methyl, prochloraz, pyridaben and other pesticides in fruit and vegetables originating in Turkey.

In 2021, 33 outbreaks caused by salmonella contamination were identified. *Listeria monocytogenes* notifications came second with a 16% increase in cases compared to those reported in 2020 for the EU. Other identified hazards that generated a large number of notifications in the RASFF were mycotoxins in nuts, nuts and dried fruits - a total of 450 notifications, of which 73% were for consignments rejected at border control points and most often related to raisins with origin Turkey. For the reporting period, 198 allergen notifications were created, which is much less compared to the number of allergen notifications in the previous year.

The total number of notifications in the iRASFF system, for which Bulgaria has taken action as a notified and notifying state for the period from 01.01.2021 to 31.12.2021 is 536. The dissemination of notifications is as follows:

- Incoming:
  - Food sector - 178 notifications (46 for non-compliance; 17 - for awareness; 29 - for information that requires follow-up; 84 - for warnings; 2 - for news);
  - Feed sector - 12 notifications;
- Outgoing:
  - Food sector - 13 notifications (4 for non-compliance; 3 - for awareness; 4 - for information that requires follow-up; 2 - for warnings);
  - Feed sector - 2 notifications;
  - "Border Control" sector - 331 notifications (267 for shipments rejected at the border and 64 for non-compliance).

The number of notifications to which Bulgaria is a recipient or a creator significantly increased (by nearly 35% compared to the previous year), which requires time and resources of the single contact point and the contact points in the competent departments to take measures, conduct an investigation and report the results

Bulgaria is in seventh place in the EU in terms of the total number of notifications created, the largest segment of them being border rejection notifications due to established pesticide residues above the maximum permissible residue limits in fruits and vegetables originating in the Republic of Turkey.

### **Administrative Assistance and Cooperation (AAC) System**

The AAC system serves for exchange of information between the competent authorities of the member states and the Commission when performing official controls and/or taking effective follow-up actions, in accordance with Title IV of Regulation (EU) No. 2017/625. The administrative assistance can include the provision of information and documents, performing investigations and on site inspections, and it is an important tool for maximizing the efficiency of the available resources in Member States.

In 2021, the total number of notifications in the AAC system for the EU was 2,290. There was a slight increase in the number of non-compliance notifications (by 2%). During the year, Bulgaria created a total of 64 non-compliance notifications, mainly for non-compliant shipments rejected at border checkpoints, which do not pose a serious risk to the health of consumers, and Bulgaria again had no delays in its responses.

### **Agri-Food Fraud Network (AAC-FF/FFN)**

The FFN provides Member States with the opportunity to exchange information and cooperate on a voluntary basis on issues related to infringements of European legislation in the field of the agri-food chain, in accordance with the rules laid down in Regulation (EU) No. 2017/625, in order to counteract food fraud. The increase in food fraud at EU level requires adequate and timely measures to optimize the control system and strengthen its ability to assess at an early stage the potential vulnerability to fraud in different parts of the food supply chain and the ability of the national authorities to detect and prevent potential fraud.

In mid-2021, the Agri-Food Fraud Network is integrated into iRASFF.

The trend in recent years is towards an increase in the number of fraud notifications - from 8 in 2015 to

407 in total for the whole EU in 2021. The most notifications generated in 2021 are for pets (dogs and cats) - 114, followed by notifications for fish and fish products - 42, and notifications in the "fats and oils" category - 31. The most common reason for reporting fraud during the year is missing, incomplete or falsified documentation; unauthorized treatment; omissions and/or incorrect labeling etc.

By product groups, most of the notifications created in iRASFF in 2021 were for fruits and vegetables; herbs and spices; dietary foods and nutritional supplements, labeling omissions and missing/falsified documentation.

In 2021, a total of 65 notifications were sent to Bulgaria through the Anti-Fraud Network, of which 33 - for information and 32 - for response. Bulgaria has created one case in the FFN Network. There are no notifications on which our country has not taken action and has not provided an answer.

Bulgaria is among the countries participating in the joint operation to detect honey fraud in the EU, under the name of the EU Coordinated Action Plan "From the hives". This Plan aims to review and assess the distribution on the EU market of honey for human consumption with added external sugars (dilution with various syrups produced from corn, sugar cane, beet sugar, rice, wheat, etc.) and/or mislabeling as to its botanical variety or origin. The operation was conducted in the period 2021 – 2022.

### **The IMSOC system**

The IMSOC system is a tool for managing official control information to ensure compliance with agri-chain rules. The operation of the system is carried out in accordance with Regulation (EU) No. 2019/1715. (the so called "IMSOC Regulation"), covering official controls for verification of the compliance with food and feed law, animal health and welfare rules, plant health and animal by-products. The EUROPHYT, TRACES, ADIS and RASFF systems operating in the European Union are Components of IMSOC. They operate in IMSOC through a network of representatives of the competent authorities of the Member States and the Commission, and there is at least one contact point.

In 2021, a number of meetings were held with the EC Liaison Unit regarding system updates and participation in EU coordinated action plans; weekly reports with up-to-date information on notifications issued in the Alert and Cooperation Network were prepared; an audit of the official control carried out by the BFSA regarding the functioning of the Alert and Cooperation Network was carried out and its seamless functioning at the national level was ensured.

### **6.3.3. Control on veterinary activities, veterinary products and feed, border control**

#### **6.3.3.1. Control on veterinary medical activity**

The inspections for effectiveness (verification) of the official control carried out by the RFSD are carried out according to the approved Program of the General Directorate "Verification of the official control" at the BFSA Central Office for inspections of the effectiveness of the official control performed by RFSD in accordance with Art. 12 (2) of Regulation (EU) № 2017/625 of the European Parliament and of the Council '.

On the basis of an analysis of the implementation of the "Three-year program for the audits of the official control in the BFSA for 2018 - 2020", a new "Three-year program for the audits of the official control in the BFSA for the period 2021 - 2023" was prepared at the beginning of 2021."

In 2021, the main priorities for effectiveness inspections are:

- Increasing the effectiveness of the official control exercised by the RFSD at all stages of production, processing, storage, import, transportation and distribution of food, feed, VMPs, plant protection products and fertilizers, with a view to achieving a high degree of protection of people's health, animal, plant and environmental health;
- Protecting consumers from fraud, deception and illegal practices with food, feed, VMPs, plant protection products and fertilizers.

Inspections on the effectiveness of the official control carried out by the RFSD were carried out according to an approved unified Standard Operating Procedure: "Procedure for verifying the effectiveness of the official

control carried out by the BFSA". The programs for verification of the official control implemented by the RFSD are prepared on rotational basis and also according to the number and nature of the non-conformities found during the previous inspections of the respective RFSD.

In 2021, 11 inspections were carried in the scope of the 15 planned audits on the effectiveness of the official control of the activities of the RFSD: Burgas, Varna, Haskovo, Montana, Pazardzhik, Sofia-city, Kardzhali, Pernik, Silistra, Ruse - 2. During the inspections, the employee commissions found 143 non-conformities, of which 59 were significant and 84 were non-significant. 145 recommendations were given, according to which the RFSD took the necessary actions to eliminate the identified inconsistencies. The non-implementation of the program in 2021 is due to the complicated epidemic situation in the country arising from the spread of Covid-19. Four of the official control audits planned at the end of the year have been postponed and the same are planned in 2022.

The audits conducted in 2021 most often found non-conformities related to insufficient personnel implementing the control, to the documentation of the control and the measures applied by the official control, non-conformities related to the consistency, quality and effectiveness of the official control.

The development, approval, introduction, and implementation of documented procedures, guideline, instructions at the central level, which prescribe clear rules for official control of inspectors in district structures, and the conducting of specialized trainings within the audited organizations, continues to be reported as a positive trend, which leads to improvement of the quality and effectiveness of the official control performed.

In 2022, 10 inspections on the effectiveness of the official control carried out by the RDFS are planned, with the main priorities being the same as in 2021.

#### **6.3.3.2. Control of veterinary medicinal products and in vitro diagnostic veterinary medicinal products**

The control on veterinary medicinal products (VMP) is related to the licensing of immunological and medicinal VMPs for use, renewal of marketing authorizations, issuance of supplements in connection with changes in circumstances in which products have been licensed, work on procedures for mutual recognition of VMPs, decentralized procedure, transfer of rights on licenses for use of VMPs, etc.

The quality, efficacy and safety of VMPs are monitored through the analysis of received periodic reports on the safety of the VMPs, reports on any adverse reactions to the usage of VMPs obtained through the system of pharmacovigilance and any deviations in the qualities of VMPs, as well as through continuous surveillance of the market. The BFSA maintains a system for collecting and exchanging messages about adverse reactions that have occurred in the use of VMPs. The received signals for adverse reactions that occurred on the territory of Bulgaria are published in the EU pharmacovigilance database - Eudravigilance.

The register of licensed VMPs is updated periodically in order to support the control of the VMP market, as well as to provide the information provided by law to veterinary specialists and external users.

In 2021, inspections of the attached documentation and the conditions in the sites under procedures for issuing a license for wholesale trade in VMPs, retail trade in VMPs, production/import of VMPs, as well as changes in the entered circumstances were carried out.

Checks of enclosed documentation and the conditions at the sites were carried out under the procedures for issuance/renewal of licenses for wholesale and retail trade in narcotic substances for veterinary purposes from the Lists under Art. 3 (2.2) and (2.3) of the Narcotic Substances and Precursors Control Act and changes in the entered circumstances.

The public registers of the issued licenses for wholesale trade in VMPs, retail trade in VMPs, production of VMPs and licenses issued for activities with narcotic substances for veterinary purposes are updated periodically, with the aim of assisting mainly official veterinarians of the RFSD, who are responsible for overseeing the activities with VMP, as well as providing the publicly available information provided for in the law.

In connection with the surveillance of antimicrobial resistance, the BFSA annually collects and summarizes data from the holders of licenses for the use of VMPs on the sold quantities of VMPs with



antimicrobial activity. The data is submitted to the European Medicines Agency and the World Organisation for Animal Health (OIE) based on formats approved by the ESVAC (European Surveillance of Veterinary Antimicrobial Consumption) and OIE. The data provided by the BFSA in 2021 on the sales of antimicrobial agents for animal is included in the ESVAC and OIE Annual Reports on the use of antimicrobial agents for animals in the European Economic Area EEA.

The official VMP control is carried out by BFSA employees at central and regional level.

The activities related to in vitro diagnostic veterinary medicinal products are the following:

- consideration of the applications for registration of in vitro diagnostic veterinary medicinal products;
- performing documentary verification and, if necessary, laboratory tests for compliance with the conditions for registration of in vitro diagnostic veterinary medicinal products;
- preparation of statements to the Executive Director of the BFSA for compliance with the requirements of the in vitro diagnostic veterinary medicinal products applied for registration;
- preparation of certificates for registration of in vitro diagnostic veterinary medicinal products;
- keeping a register of in vitro diagnostic veterinary medicinal products.

The BFSA controls the use, production/import, trade, storage, advertising of VMPs. The control over the trade in VMPs, as well as the use of VMPs in livestock farms, is carried out in accordance with the BFSA Annual Inspection Program for official control of VMPs, which determines the frequency and procedure for conducting inspections based on risk assessment. According to the Program, RFSD inspectors carry out at least one inspection per year to control the use of VMPs at VMP wholesale and retail establishments, veterinary establishments and inspections of livestock establishments on the basis of a risk assessment.

When carrying out the official control over the trade and use of VMPs, the RFSD inspectors also inspect beekeeping shops, pet shops, feed trade sites and agricultural pharmacies, as risky trade sites for unregulated trade/supply of VMPs.

According to the Annual Inspection Program for State Control of VMPs, on the basis of a risk assessment, the RFSD inspectors carry out inspections in animal breeding sites to control the use of VMPs, at least once a year at all sites for wholesale and retail trade with VMPs and on the veterinary medical facilities on the territory of the respective RFSD.

By order of the executive director of the BFSA from April 2017, a Quality Control Program for the commercially available VMPs was approved and implemented, and based on it, a plan was prepared and implemented for annual sampling and analysis of VMPs from the commercial network. The purpose of the Programme is to ensure that the commercially available VMPs after the granting of the marketing authorization are of the required quality, according to the specifications in the registration documentation and the requirements of the marketing authorization for the VMP.

The program applies to VMPs licensed for use under a national procedure, a mutual recognition procedure and a decentralized procedure. The quality control of VMPs is carried out under a centralized procedure (sampling and laboratory analysis) under a program of the European Medicines Agency.

The BAFS drafts and puts in place an Annual Good Manufacturing Practice (GMP) Inspection Plan of VMP manufacturers/importers. Each inspection is carried out on the basis of an order of the Executive Director of the BFSA and complies with the risk assessment criteria for each manufacturer, taking into account the implemented Quality Management System at the site, the nature of the production process and the characteristics of the products.

Cross-compliance inspections were carried out to monitor the compliance with statutory management requirements (SMR) in accordance with EU law and compliance with standards for good agricultural and environmental conditions, health and animal welfare.

The control with regard to veterinary medicinal products covers: manufacturers and importers of VMPs, wholesalers of VMPs and/or active substances, retailers of VMPs (veterinary pharmacies), livestock

establishments and veterinary practices.

The frequency of inspections is determined on the basis of a risk assessment.

In 2021, four alerts for non-compliance of the data on the packaging and the leaflet for use of VMPs with the license for use and Ordinance No. 62 on the requirements for data on packaging and leaflets and unregulated trade in VMPs, were received. In this regard, the necessary measures have been taken, ordered and the relevant inspections have been carried out.

Most often non-conformities with the requirements of the Veterinary Medicine Acts and the by-laws regarding the trade and use of VMPs are established during inspections of livestock farms and veterinary outpatient clinics.

The established non-conformities directly increase the risk of:

- Application of non-licensed VMPs to animals;
- Inability to fully trace the origin of the purchased/applied VMPs and to identify the treated animals;
- Unregulated use of VMPs in animals from which products intended for human consumption by persons without the necessary qualifications are obtained;
- Non-compliance with the withdrawal periods after the use of VMPs, for which such are required;
- Use of VMPs with an expired expiration date or with deviations in quality;
- Use of VMPs in violation of the conditions under which the license for use was issued, as well as in violation of the requirements of Ordinance No. 62/09.05.2006 on the data on the packaging and usage leaflet of the VMPs;
- Storage of VMP in breach of the manufacturer's requirements.

As a result of non-conformities found during the inspections of the sites for trade and use of VMPs in 2021, 299 precepts were issued and 14 citations for established administrative violations were drawn up.

The inspections carried out in the sites subject to control by the RFSD include the minimum set, according to the BFSA Inspection Program for 2021, as well as additional inspections in connection with submitted signals and complaints, based on risk assessment and due to joint inspections with employees of the BFSA Head office in connection with the verification of the effectiveness of the official control. The inspections which detected non-conformities and where precepts were issued were about 7% of the total number of inspections (9% in 2020). Citations for establishing an administrative violation were drawn up in about 0.3% of the inspections, which is close to those drawn up in 2020 (around 1%).

The number, frequency and sequence of on-site inspections are not always based on a preliminary risk assessment for each site, which reduces the effectiveness of inspections.

With regard to the control activity over the trade and use of VMPs in 2021, the following has been done: one license for production/import of VMP was issued; changes to 11 licenses for VMP production were approved; 1 license for VMP production was terminated; 1 license for production/import is suspended; 2 activities related to licenses for production/import were temporarily suspended; 13 certificates for Good Manufacturing Practice (GMP) were issued; 12 scheduled inspections and 5 inspections at the request of VMP production sites for compliance with the GMP requirements were performed; 140 certificates of origin and free sale and 57 certificates of pharmaceutical product were issued.

In 2021, the inspections carried out by the RFSD in connection with the official control over the trade, storage and use of VMPs totalled 4,366, of which: 124 inspections of wholesale trade sites; 347 inspections of retail outlets; 1,629 inspections of veterinary medical establishments; 2,130 inspections of livestock sites and 136 inspections of pet stores, beekeeping shops, etc. A total of 299 precepts were issued and 14 citations for establishing administrative violations were drawn up.

### **6.3.3.3. Border control**

The official control of the border control points at the introduction of consignments of animals and goods is carried out by official veterinarians, official phytosanitary inspectors and other official inspectors and includes the performance of documentary, identification and physical inspections, including taking samples for laboratory analysis in compliance with the requirements of the directly applicable European law and national legislation.

Official control is carried out at border control points (BCPs) located on the territory of Bulgaria, which are approved in accordance with the requirements of Art. 59 of Regulation (EU) 2017/625, as well as Regulation (EU) 2019/1014, as follows: Kapitan Andreevo BCP; Varna Port BCP; Burgas Port BCP; Gueshevo BCP; Zlatarevo BCP; Kalotina BCP, Sofia Airport BCP; Bregovo BCP.

The BFSA, via the BCP departments, carries out official control upon entry into the territory of the EU of animals and goods falling within the scope of Art. 47 (1) of Regulation (EU) 2017/625. This includes carrying out official controls upon the entry of consignments of animals and goods from third countries containing: live animals; animal products, germ products, animal by-products, hay and straw and foods containing both plant products and processed animal products; plants, plant products and other objects; food and feed of non-animal origin to which measures under enhanced official control of the BCPs are applied and those to which emergency measures are applied; materials and objects in contact with food.

In addition to the eight approved border inspection posts, BFSA carried out control of non-commercial pets entering the country within the meaning of Regulation 576/2013 and goods that are part of the personal luggage of passengers within the meaning of Regulation 2019/2122 at the following entry points: Malko Tarnovo, Lesovo, Logodazh, Strezimirovtsi, Varna Airport, Bourgas Airport.

In 2021, the BCPs, through the official inspectors of the BFSA, carried out official control of consignments of animals and goods falling within the scope of Art. 47 (1) of Regulation (EU) 2017/625 as follows: live animals - 729 shipments; products of animal origin - 6,994 shipments; food and feed of non-animal origin - 100,172 shipments; plants, plant products and others - 70,526 shipments.

During the year, a total of 331 notifications were created, of which 267 notifications were for shipments rejected at the border and 64 notifications for non-conformities, which were notified in the RASFF system.

### **6.3.3.4. Feed control**

In 2021, the strategic goals set in the Unified Multi-Annual National Control Plan of the Republic of Bulgaria for food, feed, animal health, welfare and plant protection (January 2021 - December 2023) were put in place to achieve the strategic goal "Effective functioning of the feed control system".

In order to achieve a high level of protection of human and animal health, environmental protection and protection of consumers from delusions, regular, risk-based control of each stage of production, processing, storage, transportation, distribution, including feed feeding, was carried out during the year.

Feed control in 2021 follows the following priorities:

- Achieving a high level of protection of human health, animal health and the environment;
- Protecting consumers from fraud, deception and illegal feed practices;
- Effective functioning of the feed control system;
- Performing a regular and risk-based process control at feed business operators - at each stage of feed production, processing, storage and distribution, including animal nutrition;
- Control of feed, regarding the content of unwanted and prohibited substances, as well as control of their compliance with the information provided to customers;
- Effective control of genetically modified feed, control of the placing on the market, tracing and labeling of feed containing or produced from GMOs. The aim is to ensure informed consumer choice;
- Control of the production, marketing, transport and use of medicated feed in order to minimize the risk of placing on the market of raw materials and/or food of animal origin for human consumption, containing

concentrations of pharmacologically active medicinal substances above the maximum admissible levels, set in the applicable legislation;

- Control over the observance of the feed prohibitions defined in art. 11 of Regulation (EC) No. 1069/2009 and in Art. 7 and Annex IV to Regulation (EC) No. 999/2001.

### **Registration and approval of facilities in the feed sector**

In accordance with the requirements of the Feed Act and in conjunction with Regulation (EC) No. 183/2005 on feed hygiene, the activities performed in the Feed sector are carried out at sites and by operators approved or registered by the Bulgarian Agency for Food Safety.

As of Friday, December 31, 2021, the total number of registered and approved sites/operators on the territory of the country is 11,463, which are distributed by activities as follows:

**Table V.10. Number of registered and approved facilities/operators in the Feed Sector in accordance with the requirements of Art. 9 and Art. 10 of Regulation (EC) No. 183/2005 (as at 31.12.2021)**

Declared activity	Number of sites
<b>I. Registered sites under Art. 9 of Regulation (EC) No. 183/2005, exercising activities according to Art. 5 (2) of the Regulation</b>	<b>4,002</b>
1. Manufacturers of supplements	5
2. Manufacturers of premixtures of supplements	2
3. Manufacturers of compound feed	259
4. Operators performing activities of cutting, packaging, repackaging and sale of compound feed and feeding materials	56
5. Packaging, labeling, storage and marketing of feeds	13
6. Grinding, packaging, labeling, storage and marketing of feeds	5
7. Manufacturers of feed materials	377
8. Feed traders	2,405
9. Feed transport operators	800
10. Warehouse leasing operators	80
<b>II. Registered sites at the level of primary production of agricultural crops intended for feed under Art. 9, exercising activities under Art. 5 (1) of Regulation (EC) No. 183/2005 [1]</b>	<b>7,328</b>
1. Registered sites of farmers producing primary forages at the location of the property	5,246
2. Registered sites of farmers producing silage using silage additives, as feed is intended only for the needs of their own farm	449
3. Registered sites of farmers mixing feed exclusively for their own farm, without the use of additives and premixtures, using supplementary feed	1,591
4. Registered sites of farmers, mixing feed and producing silage, intended only for the needs of their own farm	42
<b>III. Approved sites under Art. 10, exercising activities under Art. 5 (2) of Regulation (EC) No. 183/2005</b>	<b>133</b>
1. Manufacturers of feed additives	7
2. Manufacturers of premixtures, based on feed additives	3
3. Manufacturers of compound feed	40
4. Traders in feed additives and premixes	76
5. Feed decontamination operators	1
6. Fat blending operators [2]	0

Declared activity	Number of sites
7. Operator manufacturing products, obtained in the production of biodiesel	0
8. Operators, processing raw vegetable oil, except for sites registered under the Food Act, production of fatty acids through the processing of vegetable oils and animal fats, biodiesel production and fat blending <sup>[3]</sup>	6
<b>IV. Approved sites under Art. 55 of the Feed Act</b>	10
1. Manufacturers of medicated feed	10
<b>Total registered and approved sites/operators in which activities under Art. 9 and Art. 10 of Regulation (EC) 183/2005 are performed</b>	<b>11,463</b>

Source: BFSA and MA

<sup>1</sup>The information is provided by the Agricultural Parcels Identification Directorate, MA

<sup>2</sup> Approved site under Art. 10 of Regulation (EC) No. 183/2005, performing activities under item 6, item 7 and item 8, is entered under item 8.

<sup>3</sup>The data under item II are provided to the BFSA by the Agricultural Parcels Identification Directorate, MA

The BFSA maintains and updates 7 national registers of the registered and of the approved sites/operators in the feed sector for the activities specified in Art. 9 and Art. 10 of Regulation (EC) No. 183/2005. They are public and available to users of the BFSA website.

Pursuant to signed bilateral agreements between the People's Republic of China (PRC) and the Republic of Bulgaria, the BFSA maintains 6 lists:

- List of approved representatives for export of corn to the PRC;
- List of approved representatives for export of alfalfa to the PRC;
- List of producers of crop-based compound feed approved for export to the PRC;
- List of manufacturers of feed additives approved for export to the PRC;
- List of sunflower meal producers approved for export to the PRC;
- List of producers of dried distillers with solubles (DDGS) approved for export to the PRC.

The operators in the Feed sector are registered and/or approved for all sites under their control, for each activity performed by them. The registration and approval of sites in the Feed sector is a dynamic process.

**Table V.11. Number of registered and approved sites in the Feed Sector in 2020 - 2021**

Item No.	Type of operator	Number of sites as of 31.12.2020	Number of sites as of 31.12.2021	Change in %
<b>1.</b>	<b>Registered operators according to art. 15 (1) of the Feed Act</b>	3,884	4,002	+2.9%
1.1.	Manufacturers of compound feed	274	259	-5.5%
1.2.	Operators performing activities of cutting, packaging, repackaging, labeling and marketing of compound feed and feed materials	57	56	-1.8%
1.3.	Packaging, labeling, storage and marketing of feeds	10	13	+30.0%
1.4.	Grinding, packaging, labeling, storage and marketing of feeds	6	1	-83.3%
1.5.	Manufacturers of supplements	4	4	0%
1.6.	Manufacturers of premixtures of supplements	2	2	0%-
1.7.	Manufacturers of feed materials	367	377	+2.7%

Item No.	Type of operator	Number of sites as of 31.12.2020	Number of sites as of 31.12.2021	Change in %
1.8.	Feed traders	2,343	2405	+2.6%
1.9.	Feed transport operators	745	800	+7.4%
1.10.	Warehouse leasing operators	76	80	+5.3%
<b>2.</b>	<b>Approved operators according to art. 15 (3) and (4) of the Feed Act</b>	135	133	-1.5%
2.1.	Manufacturers of compound feed	40	40	0%
2.2.	Manufacturers of feed additives	7	7	0%
2.3.	Manufacturers of premixtures of supplements	3	3	0%
2.4.	Traders in feed additives and premixes	78	76	-2.6%
2.5.	Operators performing: - processing of raw vegetable oil with the exception of sites registered under the Food Act and/or -production of fatty acids through the processing of vegetable oils and animal fats, biodiesel production and fat blending	6	6	0%
2.6.	Feed detoxication operators	1	1	0%
2.7.	Operators carryout out fat blending	0	0	0%
2.8.	Operators, producing biodiesel	0	0	0%
<b>3.</b>	<b>Approved producers of medicated feed according to art. 55C (1) of the Feed Act</b>	<b>10</b>	<b>10</b>	<b>0%</b>
<b>4.</b>	<b>Registered farmers exercising activities under Art. 5 (1) of Regulation (EC) No. 183/2005</b>	<b>8,269</b>	<b>7328</b>	<b>-11.4%</b>
4.1.	Registered farmers producing primary feed	5,880	5,246	-10.8%
4.2.	Registered farmers producing silage using silage additives, as feed is intended only for their own farm	485	449	-7.4%
4.3.	Registered farmers mixing feed exclusively for their own farm without the use of additives and premixtures, using complementary feed	1892	1,591	-15.9%
4.4.	Registered farmers mixing feed and producing silage, intended only for the needs of their own farm	12	42	+250%
	<b>Total</b>	<b>12,298</b>	<b>11,463</b>	<b>-6.8%</b>

Source: BFSA and MA

As of 31 December 2021 the total number of operators falling within the scope of Art. 9 of Regulation (EC) No. 183/2005 increased by 118 or by 3% compared to the previous year. The number of deleted registrations, at the request of the operator, on the basis of Art. 16 (10.1) or Art. 17d (2.1) of the Feed Act decreased by 18 or by 8.9%. Compared to 2020, the revoked registration certificates, based on Art. 16 (10.2) or art. 17 (2.2) of the Feed Act and application of Art. 15 of Regulation (EC) No. 183/2005 as of 31.12.2021 are 8 or 16.0% less. The most common reason for registration revokes on this basis is the temporary suspension of the operator's activity for a period longer than one year.

During the year, 10 new sites were approved, in which activity is carried out in accordance with the feed legislation.

As of the end of 2021, no approved sites have been revoked, and the total number of sites where the activity "production of medicated feed" is carried out, falling within the scope of Art. 10 of Regulation (EC) No. 1831/2003, was unchanged on an annual basis.

### Production of compound feed

According to data from the producers of compound feed, provided in pursuance of Art. 14b of the Feed Act, in 2021 the country produced a total of 1,301,142.9 tons of compound feed, which is an increase of 10.1% compared to 2020.

**Table V.12. Production of compound feed in 2021 by animal species, tons**

Type of animals	For the market	For own farms	Total
Ruminants	152,603.730	51,656.797	204,260.5
Pigs	207,058.632	197,900.367	404,959.0
Poultry	488,931.901	134,193.813	623,125.7
Other animals	64,948.072	3,849.600	68,797.7
<b>Total</b>	<b>913,542.335</b>	<b>387,600.577</b>	<b>1,301,142.9</b>

Source: BFSa

### Production of medicated feed

As in previous years, in 2021 the country produced medicated feed only for pigs. The amount produced was 27,775.2 tons, 40.6% more than in 2020. The share of medicated feed production for the needs of own livestock farms increased to 73.9% of the total amount produced, and the amount produced for the market decreased to 26.1% (at 60.2% and 39.8% respectively in 2020).

**Table V.13. Production of medicated feed in 2021 by districts**

District	For the market	For own farms	Total
Varna	60.3	9,876.0	9,936.3
Veliko Tarnovo		306.1	306.1
Razgrad		1,342.0	1,342.0
Ruse	247.0	6,621.8	6,868.8
Stara Zagora		237.5	237.5
Shumen	6,900.0	2,131.5	9,031.5
Yambol	53.0		53.000
<b>Total</b>	<b>7,260.3</b>	<b>20,514.9</b>	<b>27,775.2</b>

Source: BFSa

### Official feed control

During the year, the operational objectives set in the Framework Plan for Feed Control for 2021 were met. The control covers both sites in the feed sector and livestock sites, incl. also establishments that produce feed or only feed animals that are kept for food production and their products are intended for human consumption.

In 2021, the feed control followed the defined main specific operational objectives, related to the strategic objectives set in the SMNCP of the Republic of Bulgaria for 2021 - 2023, namely: to ensure that the feed meets the safety requirements; to verify the compliance with the requirements of the legislation on the placing on the market and use of feed (labeling).

In accordance with Art. 17 of Regulation (EC) No. 178/2002 and recital (6) of Regulation (EC) No. 1831/2003, feed business operators are responsible for the safety of their feed, the protection of animal health and the prevention of risks for the environment.

The official feed control is scheduled and ongoing. The scheduled control is based on country-wide risk assessment criteria. In 2021, the "Feed Control Framework Plan for 2021" was implemented and guidance for work on its implementation were applied. It covers feed control on all levels, including animal feed in farms.

Ongoing controls include follow-up checks, checks in case of suspicions and investigations (alerts, complaints, RASFF notifications, etc.), checks on applications for feed exports to third countries, TRACES checks and others.

The feed control framework plan covers three control systems: "Animal feed and nutrition", "Transmissible spongiform encephalopathies and animal by-products" and "Veterinary products and residues of veterinary medicinal products". The inspections carried out in 2021 and the samples taken from feed for analysis were evenly distributed over the period and cover all groups of operators.

### **Results of control activities under the Animal Feed and Nutrition Control System**

The overall progress in achieving the strategic and specific objectives of the Animal Feed and Nutrition Control System is assessed as positive. In 2021, a total of 4,134 audits and inspections were performed, incl. 3,631 - scheduled inspections, 358 - follow-up, 130 - investigative, and 15 - on signal. The performed scheduled inspections were 286 or 7.3% less compared to 2020. Each inspection/audit is documented with a statement of findings/audit report.

The inspections revealed non-conformities with the requirements of the legislation applicable in the sector, as a result of which 1,055 precepts for their elimination were issued - 261 or 19.8% less than in 2020.

No serious non-conformities were observed with regard to feed tested which would result in animal or public health hazards. The type of non-conformities found did not pose a potential risk to animals.

According to the type of the site where the non-conformities were found, the largest number of precepts were given during inspections in livestock farms - 588. The identified discrepancies were mainly related to compliance with the requirements for hygiene, self-control of operators and traceability of feed. Nonconformities with regard to hygiene requirements mainly concerned deficiencies in the cleaning procedures and their implementation. Non-conformities in self-control were mainly related to non-sampling of feed for self-control. Incomplete/irregular record keeping was the main part of the non-conformities found in terms of compliance with traceability requirements.

The most common reasons for the non-conformities are: the unawareness of the operators' liability according to Regulation (EC) No.178/2002; insufficient knowledge of the legislation requirements; insufficient financial resources on the part of feed business operators.

In 2021, during the inspections of the sites in the feed sector, samples were taken for analysis on indicators declared by the manufacturer for compliance, as well as for compliance with the permissible safety values defined in the legislation.

The total number of analyses of samples taken for official control in 2021 was 2,774 (including 290 analyses for moisture content), of which:

- 759 for nutritional value (no non-compliant results were obtained);
- 297 samples for feed additives, with fixed maximum content, including permitted coccidiostats (non-compliance was found in 15 analyses - 5.1% of the performed analyses, which is 1 analysis less compared to 2020);
- 1,471 samples for undesirable substances, including mycotoxins (16 non-compliant results were obtained - 1.1% of the analyses, which is 12 less on annual base).

In 2021, in implementation of the Framework Plan for Feed Control, a total of 912 feed samples were analyzed for mycotoxin content. 96.2% of the planned feed samples intended for analysis for mycotoxin content



were taken and analyzed, which is reported as a completely satisfactory result.

In 2021, the following were also taken:

- 25 samples of feed for dioxins and dioxin-like polychlorinated biphenyls, in implementation of the framework control plan. During the performed analyses it was established that all samples comply with the legislation. Although the maximum levels as well as the thresholds laid down in Directive No. 2002/32 / EC were not exceeded, the presence of dioxins and dioxin-like polychlorinated biphenyls in relatively constant values ranging from 0.16 to 0.41 ng/kg was detected in the samples analyzed;
- 49 analyzes for prohibited medicinal substances, such as feed additives and for inevitable transfer of coccidiostats in non-target feeds (there were 9 inconsistent results or 18.36% of the performed analyses);
- 168 samples for microbiological contamination - presence of salmonella. 4 inconsistent analysis or 2.4% of the analyzed samples were identified (3 in 2020);
- 29 samples of feed for the presence of GMOs, in which presence of unauthorized genetically modified feed was not detected.

The cases of feed non-compliance with the requirements of the applicable legislation in 2021 increased to 44 compared to 25 in 2020.

#### **Control of feed under the control system "Transmissible spongiform encephalopathies and animal by-products"**

The observance by the operators from the feed sector of the feed prohibitions, defined in art. 7 and Annex IV to Regulation (EC) No. 999/2001 and in Art. 11 of Regulation (EC) No.1069/2009, is controlled.

During the performed documentary and physical inspections in 2021 no infringement of the requirements of Art. 11 of Regulation (EC) No. 1069/2009 on the intra-species feed ban, were found.

During laboratory control in 2021, no inconsistencies with the requirements of Art. 7 and Annex IV of Regulation (EC) No. 999/2001 on the complete feed ban were found.

The feed samples taken in 2021 for the presence of ingredients of animal origin in the implementation of the Feed Control Framework Plan are 328, including 318 samples in the implementation of the Feed Control Framework Plan and 10 samples of feed intended for export.

Proteins of animal origin are at risk for contamination with microorganisms (salmonella spp. and other bacteria from the Enterobacteriaceae family), which is why samples are taken feed for the presence of microbiological contamination. In 2021, 77 feed samples were analyzed for presence of Salmonella spp., incl. 37 samples in implementation of the Feed Control Framework Plan under the TSE and by-products control system, 38 samples of feed intended for export and 2 samples taken at the discretion of the inspector.

In 2021, 75 feed samples were analyzed for the presence of enterobacteria, including 29 samples in implementation of the Framework Plan for the control of feed under the TSE and SHP control system, 38 samples of feed intended for export and 13 samples, 4 samples taken at the discretion of the inspector and 4 samples taken during surveys. During the performed laboratory control positive result of laboratory analysis for the presence of enterobacteria in feed at one operator, producer of compound feed for the needs of own farms was established. A study was carried out in connection with the identified discrepancy.

#### **Feed control under the "Veterinary medicinal products and residues of veterinary medicinal products" control system**

As of 31.12.2021, 10 sites for production with medicinal feed and/or intermediate products under Art. 55 c (1) of the Feed Act were approved. One facility only operated in the first quarter of 2021.

In 2021, a total of 35 inspections of approved operators engaged in the production of medicated feed (6 more than in 2020), of which 20 scheduled inspections, 9 follow-up inspections and 6 investigative inspections, were carried out. As a result, 6 precepts were given to 4 operators, representing 40% of the 10 sites checked.

(Compared to 16 precepts to 6 operators in 2020).

In 2021, a total of 21 feed samples were taken and analyzed under the control system. According to the results of analysis in 1 of the samples from non-target feed, analyzed for unavoidable transfer of active drug substance, the presence of cross-contamination with the same was found, and in 3 samples a discrepancy was found between the declared amount and the amount determined during the analysis. In connection with the obtained non-compliant results of the analyses, all necessary measures and actions have been taken in accordance with the legislation.

### **Audits of Feed Business Operators**

According to the requirements of art. 6 and Art. 7 of Regulation (EC) No. 1831/2003 and in connection with Art. 26 (2) of the Feed Act, feed business operators carrying out activities other than those at the primary feed production level are obliged to have developed and implemented procedures based on the principles of HACCP (Hazard Analysis and Critical Control Point).

In 2021, 257 audits of feed business operators and 20 follow-up audits to check the implementation of the audit recommendations were carried out. Compared to 2020, there is a decrease in the performed audits by 6 and an increase in the recommendations made by 4.

It can be concluded that the operators have developed, introduced and implement the relevant procedures, thus fulfilling the requirements of Regulation (EC) No. 1831/2003. For some operators, it was found that procedures based on HACCP principles were not relevant at the time of the audit. For all identified non-conformities, recommendations were given and the operators have taken corrective action. Their implementation has been inspected and they were closed.

During the year, 28 citations for established administrative violations were drawn up (1 less than in 2020), most often related to non-compliance with the requirements of Art. 7 (1) or (2), Art. 6 (3), and Art. 15 (1) of the Feed Act. The analysis of the application of the administrative penal provisions of the Feed Act shows that the imposed penalties have an effect on the observance of the requirements of the feed legislation by the operators in the feed sector.

### **6.4. Analysis of the food chain risks**

The activity of the Food Chain Risk Assessment Center (FCRAC) is regulated by the Law on the Food Chain Risk Assessment Center (promulgated in State Gazette, issue 44 of 10.06.2016). The Center is the legal successor of the Risk Assessment Center of the Bulgarian Food Safety Agency, which functioned from 18 February 2011 to 1 October 2016, when it was transferred to the structure of the Ministry of Agriculture. With the FCRAC Act, this structure was transferred to the Ministry of Agriculture as a legal entity with budget support - a secondary budget administrator to the Ministry of Agriculture.

With the creation of the FCRAC, independence and impartiality in the preparation of the scientific risk assessment along the entire food chain and independence in relation to the structure of the competent authorities that manage the risks in the food chain have been achieved. This distinction is regulated in Regulation (EC) No. 178/2002 at the European Union level with the establishment of the European Food Safety Authority (EFSA). These safeguards have been further developed with the publication of Regulation (EU) 2019/1381 regarding the transparency, the risk assessment procedure, in particular in the context of authorization procedures that cover the food chain.

The center works as a miniature model of the EFSA, covering all its areas of competence - animal health and reproduction, animal welfare; biological hazards; plant health; plant protection products and their residues; genetically modified organisms; chemical pollutants; materials intended for contact with food; enzymes; food additives and nutritional supplements; feed additives; diet foods, nutrition, allergens and foods with health claims.

Through its independent, scientifically based assessments, the FCRAC helps consumers to make informed decision on the one hand and the competent control authorities to assess the impact of risk management measures in the food chain on the other. In addition, the risk assessments prepared by the FCRAC provide a basis for further analysis and assessment of the benefit/risk balance in the future.

The Food Chain Risk Assessment Center is a competent authority within the meaning of Art. 22 (7) of Regulation (EC) No. 178/2002. The main objective of the Center is to carry out independent scientific assessment of the food chain elements through direct assignment by the European Food Safety Authority (EFSA), the Ministry of Agriculture, the Bulgarian Food Safety Agency, the Ministry of Health, or other government bodies, physical and legal entities. Scientific risk assessment is carried out through an independent, transparent, and impartial analysis of scientific information on issues that directly or indirectly affect animal and plant health, plant products, plant and animal reproductive material and food and feed safety in the entire food chain. The center also evaluates the marketing of plant protection products in the procedures for approval, renewal, and review of the approval of active substances, antidotes and synergists. It is a competent authority within the meaning of Art. 75 (1) of Regulation (EC) No. 1107/2009 on carrying out assessments with an assessment report for authorisation, renewal, amendment, and withdrawal of authorization for marketing and using plant protection products.

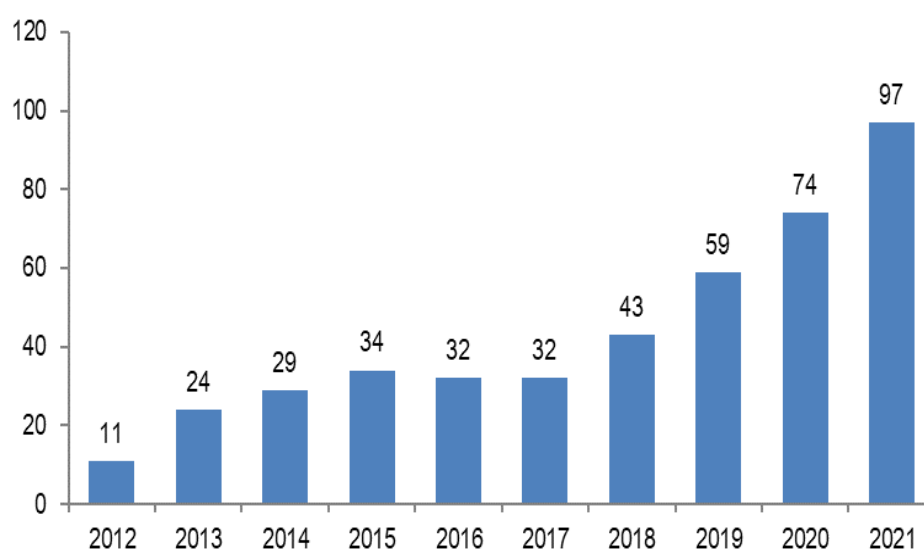
Pursuant to the FCRAC Act, the Center is the competent authority in Bulgaria within the meaning of Art. 36 of Regulation (EC) No. 178/2002, as part of a network of organizations working in areas under the competence of the EFSA.

In 2021, the Center continued to fulfill its main goal - preparation of scientific opinions and publication of scientific reviews/analyses and information in the field of agri-food chain (health and animal welfare, biological and chemical hazards in the food chain, zoonoses, genetically modified organisms, materials for food contact, plant health, pesticide residues in food, food additives, dietary products, nutrition and allergens) as well as assessments with assessment reports for the authorization, renewal, amendment and withdrawal of authorization for marketing and use of plant protection products. The prepared scientific opinions are at the request of the Ministry of Agriculture, the BFSA and other organizations, and the assessments regarding the marketing of plant protection products are part of the procedure for their authorization. Some of them include timely assessments of the risk to the health of consumers in specific cases of established chemical hazards in food, in which recommendations are given for taking measures to manage the risk related to food safety. All publications are available on the FCRAC website.

In 2021, the Center carried out activities to evaluate the active substances chlorotoluron and dazomet, as part of Bulgaria's commitments to the EU.

During the year, special attention was paid to reviewing and monitoring the situation with current diseases - African swine fever and avian influenza A (bird flu). The FCRAC experts, along with experts from BFSA, participated in the conducted epizootic studies in some of the affected livestock facilities.

**Figure V.1. Number of assessments prepared by the FCRAC for the period 2012 - 2021**



Source: FCRAC

In general, for the period 2012 - 2021 there is a gradual increase in the number of assessments prepared by the FCRAC - from 11 in 2012 to 97 in 2021 (including 64 scientific risk assessments, 24 scientific reviews and analyzes, and 9 dossier evaluations under measure 16.1 of the Rural Development Program).

In 2021, the Center also prepared 186 scientific reports.

With regard to the activities of the FCRAC related to plant protection products, in 2021, 374 PPP files were received and 177 reports for the evaluation of PPP were completed and submitted to the BFSA for approval.

In fulfillment of its duties, FCRAC carries out:

- Collection of information on authorized plant protection products (PPPs) in Bulgaria, summary of the parameters of approved good agricultural practices and provision of the information to EFSA in connection with the review of the maximum residue levels (MRLs) under Article 12 of the Regulation (EC) 396/2005 – for 9 active substances;
- Review of published Regulations for the amendment of the MRLs and confirmation of the need to take national measures - 25;
- Review of regulations for amendment of the MRLs for compliance of uses permitted in Bulgaria for plant protection products and active substances - 4 published.

In 2021, the Center received 374 files for PPPs. There were 177 completed and submitted to the BFSA assessment reports of PPPs.

During the year, a total of 659 evaluations of PPPs by areas were carried out by the FCRAC, as follows: physicochemical indicators and analytical methods - 100; toxicological characteristics - 113; residues - 114; environmental fate and behavior - 107; ecotoxicological characteristics - 107; biological efficiency - 118.

In 2022, the activity of the FCRAC will continue to prepare and update risk assessments in the following areas:

- African swine fever in Bulgaria, Europe and the world;
- Avian influenza;
- Additionally prepared materials for current animal diseases or with increased risk of entering the territory of the Republic of Bulgaria;
- Animal welfare;
- Residues from PPPs, VMPs and environmental pollutants;
- Packaging and food contact materials;
- Allergens, dietary foods, novel foods and foods with health claims, allergens, nutritional supplements, novel foods, safety assessment of traditional foods.

In 2022, the FCRAC will continue to conduct an in-depth scientific analysis of problems related to the risks in the agri-food chain and to provide this information to stakeholders (producers, processors, traders, consumers, scientific organizations under Article 36 of Regulation (EU) No. 178/2002, the competent risk management bodies, ministries, parliament and parliamentary committees).

Another key priority is the evaluation of plant protection products in accordance with the requirements of Regulation (EC) No. 1107/2009, Regulation (EC) No. 396/2005, as well as the collection, processing and provision of information to EFSA on approved good agricultural practices of permitted plant protection products in Bulgaria in connection with the review of maximum residue limits. The Center's work on the evaluation of the two active substances - chlorotoluron and dazomet - remains a priority. These priorities were established in the FCRAC Act and are the main part of the Center's activities.

The Center is committed to developing effective systems to collect and analyze data for monitoring and risk assessments along the food chain and food safety. This will allow the collection of reliable data for the

completion of expertises and assessments, including the use of the capacity of scientists from the network of scientific institutions under Article 36 of Regulation (EU) No. 178/2002, which will strengthen the confidence of interested users in the FCRAC production.

In view of the above main goals, in 2022 the Center continues working on the formation, together with the scientific organizations under Art. 36 of Regulation (EC) No. 178/2002, of scientific groups of highly qualified experts in the different areas of activity (panels) for preparation and/or updating of scientific risk assessments and expertise, emphasizing the following priorities:

- Protecting public health and strengthening consumer confidence in the safety and security of the whole food chain by conducting an independent scientific risk assessment, opinions and information related to the food chain, directly outsourced by the European Food Safety Authority, MA, BFSA or other state bodies, individuals and legal entities for the preparation of scientific risk assessment in an independent, transparent and impartial manner on issues that directly or indirectly affect animal and plant health, plant products, plant and animal reproductive material and the safety of food and feed throughout the food chain. These assessments, opinions and information are used for decision-making for risk management in the food chain;
- Data collection, including from structures outside the MA, necessary for risk assessment along the food chain; if necessary, for the purposes of risk assessment, conducting research and collecting information in the field;
- Communication of risk and exchange of information with all institutions and persons involved in food chain safety and to study the information needs needed to perform an objective risk assessment;
- Communication and exchange of scientific information with EFSA and other international and national food chain risk assessment organizations, maintenance of a national database of experts in the various fields of the food chain and implementation of scientific cooperation through coordination of activities, development and implementation of joint projects, exchange of experience and best practices in the areas of competence of EFSA according to Art. 36 of Regulation (EC) No. 178/2002;
- Approving, renewing, and revising the approval of active substances, antidotes and synergists in its capacity as a competent and coordinating body within the meaning of Art. 75 (1) and (2) of Regulation (EC) No. 1107/2009;
- Carrying out an assessment with an assessment report upon authorization, renewal, amendment and revocation of a permit for placing on the market and use of plant protection products, as a competent authority within the meaning of Art. 75 (1) of Regulation (EC) No. 1107/2009.

#### **6.5. Legislative changes and strategic documents in the field of food chain safety**

In 2021, the optimization of the regulatory framework in the field of food safety and quality, animal health and plant health continued. During the year, It was worked on the following regulatory acts and strategic documents, some of which were adopted in 2022:

- Ordinance No. 2 of 2021 on the specific requirements for the safety and quality of food offered in children's institutions, school canteens and retail establishments on the territory of schools and children's institutions, as well as of food offered at organized events for children and students (promulgated, SG, issue 8 of 2021);
- Ordinance on the specific requirements for performing food banking and control over this activity (promulgated, SG, issue 10 of 05.03.2021);
- Ordinance No. 7 of 2021 on the terms and conditions for issuing a sticker to certify the registration of food transport vehicles (promulgated, SG, No. 17 of 26.02.2021);
- Ordinance on the provision of information to consumers about food (promulgated, SG, No. 25 of 26.03.2021);
- Ordinance on the requirements for quick-frozen foods (promulgated, SG, No. 26 of 30.03.2021);

- Ordinance No. 11 of 2021 on the measures for control over certain substances and residues thereof in live animals, raw materials and food of animal origin, intended for human consumption (promulgated, SG, issue 61 of 23.07.2021);
- Ordinance on food additives (promulgated, SG, issue 106 of 15.12.2021);
- Ordinance on the specific requirements for dairy products (promulgated, SG, issue 64 of 03.08.2021);
- Ordinance No. 14 of 2021 on food hygiene (promulgated, SG, issue 106 of 15.12.2021);
- Ordinance No. 10 of 2021 on the specific requirements for the production of food of animal origin in slaughterhouses (promulgated, SG, No. 36 of 01.05.2021);
- Ordinance No. 12 of 2021 on the specific requirements for distance food trade (promulgated, SG, issue 100 of 30.11.2021);
- Ordinance on the requirements for certain partially or completely dehydrated milks intended for human consumption (promulgated, SG, issue 35 of 27.04.2021);
- Ordinance on the specific requirements for caseins and caseinates intended for human consumption (promulgated, SG, issue 63 of 30.07.2021);
- Ordinance on the requirements for coffee and chicory extracts (promulgated, SG, issue 79 of 2021);
- Ordinance on the requirements for quick-frozen foods (promulgated, SG, issue 91 of 2021);
- Draft Ordinance on the requirements for fruit jams, jellies, marmalades, jelly marmalades and sweetened chestnut puree;
- Draft Ordinance on the requirements for grain-based foods and baby foods intended for infants and young children;
- Draft Ordinance on the requirements for honey intended for human consumption;
- Decree No. 417 of the Council of Ministers of 2 December 2021 amending the Tariff for determining the prices to be paid for the implementation of the measures under the program for the prevention, supervision, control and eradication of animal diseases and zoonoses, adopted by Decree No. 78 of the Council of Ministers in 2016;
- Draft of a new Veterinary Medical Activity Act and draft of a Report on a comprehensive preliminary impact assessment of a draft of a new Veterinary Medical Activity Act;
- Draft of Ordinance amending and supplementing Ordinance No. 6 of 20 March 2007 on the terms and conditions for grazing pigs of the Eastern Balkan breed and its crossbreeds;
- Ordinance No. 5 of 09.02.2021 on permitting the placing on the market and use of plant protection products (promulgated, SG, No. 16 of 23.02.2021);
- Ordinance No. 8 of 23.02.2021 on the terms and conditions for control over plant protection products, trade, repackaging, storage and use (promulgated, SG, No. 18 of 02.03.2021);
- Ordinance No. 9 of 26.02.2021 on integrated production of plants and plant products and control over integrated production (promulgated, SG, No. 21 of 12.03.2021);
- Draft Ordinance on the terms and conditions for the use of plant protection products;
- Agreement on interaction between the Minister of Agriculture and the Minister of Health in implementing the measures to limit and eradicate zoonoses;
- Interim and annual report on the implementation of the Plan to control and prevent the spread of African swine fever in Bulgaria for the period 2021-2023 (approved by Decision No. 313 of 9 April 2021 of the Council of Ministers);
- Annual report on the epizootic situation regarding some dangerous animal diseases in Bulgaria, neighboring countries, and EU members for 2021.

## **Priority activities in 2022**

In 2022 it is planned to re-issue, amend and/or issue new by-laws related to the implementation of the new Food Act and the Agro-Food Chain Management Act.

During the year, the activities related to the preparation of a draft of a new Veterinary Medical Activity Act, fully compliant with the framework and provisions of Regulation (EU) 2016/429 of the European Parliament and of the Council of 9 March 2016 on transmissible animal diseases and amending and repealing certain acts in the area of animal health and delegated acts thereto (applicable from 21 April 2021) and Regulation (EU) 2019/6 of the European Parliament and of the Council of 11 December 2018 on veterinary medicinal products and repealing Directive 2001/82/EC.

The work of the Coordinating Council established under the Ministry of Agriculture continues, coordinating the implementation of measures for the prevention and control of the spread of infectious diseases that have arisen on the territory of the Republic of Bulgaria.

At EU level, in 2022, the fight against antimicrobial resistance has been prioritized under the "One Health" approach, including a coordinated approach in the field of public health, animal health and environmental protection, and work continues on defining proposals for actions and priorities to strengthen the fight against antimicrobial resistance at EU and Member State level within working subgroups of the One Health network.

The priority is the European Commission's proposal for a Regulation of the European Parliament and of the Council on the sustainable use of plant protection products and amending Regulation (EU) 2021/2115, published in June 2022. On this occasion, active participation in the technical discussions is planned and the discussion of the text of the proposal for a regulation.

## **7. Livestock Selection and Reproduction**

### **7.1. Livestock Selection and Reproduction**

The Executive Agency for Selection and Reproduction in Animal Breeding (EASRAB) assists the Minister of Agriculture in pursuing the state policy in the field of breeding and management and conservation of genetic resources. The Agency monitors the state of national genetic resources and coordinates the activities related to their management.

The EASRAB participates in the management of national genetic resources in animal husbandry through management, organization and participation in the activities of the National Council for Management and Conservation of Genetic Resources. In 2021, 41 meetings of the Council by Sections for the individual directions in animal husbandry were held, where the problems of the respective branch were discussed and proposals for improving the breeding activity were made.

The EASRAB coordinates the creation of new breeds and hybrids of animals by administering the activities of the State Commission on Animal Breeds (SCAB) and performs the necessary expert assessment on the merits at all levels. Within the framework of 2021, in the SCAB no applications were received by the Patent Office for the performance of substantive examinations.

The Agency makes annual monitoring of the breeds in connection with the maintenance and periodic updating of the Register of Breeding herds of the National Gene Fund under Article 18 (6) of the Animal Breeding Act.

EASRAB experts determine the breed affiliation according to the prepared detailed breed characteristics of the cattle, buffaloes, sheep and goats bred in the country. In 2021, the breeds of 94 cattle animals and 170 goats was determined. All animals have been registered as breeders in the BFSA Vetis Integrated Information System. During the year, the risk status and change trend was determined of the following: 26,305 cattle (of three autochthonous and three commercial breeds); 16,070 buffaloes (of one commercial breed); 139,466 sheep (of 19 autochthonous and 3 commercial breeds); 22,868 goats (from four autochthonous and one commercial breed); 904 pigs (one autochthonous and one commercial breed) and 7,776 horses (one autochthonous and four commercial breeds).

In 2021, the breeding organizations in the country and the IASRG control 28 autochthonous and 13 commercial breeds, which are the subject of support under the Program for the Development of Rural Areas, measure 10 "Agroecology and climate in the direction "Protection of endangered local breeds".

Due to the African swine fever disease, from the end of 2019 to 31.12.2021, 950 pigs of the autochthonous East Balkan pig breed were destroyed, as a result of which its status was already changed to breed becoming extinct. The Pleven Horse and Bulgarian Red Cattle breeds can also be identified as endangered breeds. Of the autochthonous breeds, the condition of the Local Stara Zagora sheep, Byala Marishka, Local Karnobat sheep and the Sakar sheep is alarming, and of the commercial breeds - Karnobatska and Trakiyska fine-wooled sheep, of the East Bulgarian horse, Danube horse and Danube white pig. During the year, measures for restoration of two national breeds - the Bulgarian brown cattle and the Bulgarian red cattle - continued to be implemented. A breeding program has been developed for the Bulgarian Brown Cattle, and the breeding activity with the breed is undertaken by two breeding organizations. A breeding plan has been developed for the development of the Bulgarian red cattle and it was implemented in 2021 as well.

The EASRAB maintains an information database on the state of genetic resources, based on the EFABIS model of the European Regional Focal Point. The national system is linked to EFABIS, and the latter to the DAD-IS information system of the World Food Organization (FAO). This integration enables the transfer of data from national to European and global information systems. The information in the system was also updated in 2021.

The EASRAB manages and maintains a National Genetic Bank with two repositories (Sofia and Sliven), which store cryopreserved semen from different species and breeds of animals.

As of the end of 2021, the National Genetic Bank stored a total of 1,547,558 doses of deep-frozen semen from 334 breeders, as follows: of 283 cattle breeders, 24 buffalo breeders, 17 goats, 7 rams and 3 stallions of 23 breeds of cattle, 4 breeds of buffalo, 8 breeds of sheep, 4 breeds of goats and 3 breeds of horses, which increases the variety of genetic material offered for sale.

The Agency also maintains a National Genetic Reserve as a separate part of the National Genetic Bank. The reserve guarantees the national sovereignty of the country with regard to genetic resources, conservation, restoration and sustainable management of biodiversity, as well as limiting its loss.

As of 31.12.2021, the National Genetic Reserve of the country kept in stock 403,917 doses of frozen seed material from: 457 cattle and 31 buffalo breeders, 58 rams, 13 he-goats and 31 stallions. The doses are from 27 breeds of cattle, 4 breeds of buffalo, 21 breeds of sheep, 6 breeds of goats and 10 breeds of horses.

To ensure higher biosecurity, the frozen semen from the National Genetic Reserve is stored in two cryo-storage facilities - Sofia and Sliven.

The EASRAB manages and maintains the two State Artificial Insemination Stations (SATIS) in Sofia and Sliven, ensuring the breeding activity and the conservation of genetic resources in the country. The stations receive and store long-lasting Breeding material from valuable highly productive breeds and from endangered and endangered local autochthonous breeds of animals is received for long-term storage at the stations.

At the end of 2021, 10 breeders of the following breeds were bred in Sliven SATIS: Bulgarian Red Cattle, Holstein Black, Simmental, Aberdeen Angus Black and Red, Limousin and Bulgarian Murre.

In 2021, 25,270 doses of deep-frozen semen were produced from the available cattle and buffalo breeders in Sliven SATIS.

A horse breeding depot is maintained in the Sofia SATIS, where the EASRAB's own horses are bred and provided under contracts. In 2021, 33 ejaculates were obtained from the stallions bred at the station and 1,700 doses were produced.

In the implementation of the ten-year Conservation Program for "ex situ" management of genetic resources in Bulgaria 2015 - 2024, from the middle of 2018 rams and he-goats are bred in Sofia SATIS. The rams and he-goats received in the SATIS are under contracts for joint activity with the respective breeding organizations. By the end of 2021, 2 rams, 2 he-goats, 1 sheep and 2 goats were being bred in Sofia.



The Agency has taken preventive measures for the protection and conservation of the East Balkan pig breed in connection with African swine fever. In order to prevent the risk of loss of valuable genetic resources, a response system has been set up in the event of natural disasters, epidemics, industrial accidents or other unforeseen causes, with severe consequences for animal populations. A clinical examination of a pig farm, which is under the selection control of the Association for Breeding and Storage of the East Balkan Pig, was carried out. As a result, in the two facilities of the Agency (Artificial Insemination Station in the town of Sliven and livestock farm, owned by EASRAB in the town of Kyustendil) there are three breeding groups of 10 sows, 2 boars, and 25 adolescent pigs, participating in two genealogical schemes.

EASRAB assists the activities of breeding organizations in the implementation of their breeding programs, ensuring proper assessment of selection traits and assessment of breeding value through: providing an opportunity for research of the quality indicators of controlled traits in its laboratories; breeding of male animals and production and storage of semen; proving the origin of breeding animals in her laboratory.

To this end, the Agency manages and maintains a laboratory for control of milk productivity and a laboratory for control of wave productivity.

In 2021, in the state laboratory for determining the physico-chemical composition of milk in the town of Sliven a total of 13,130 samples of cow milk were analyzed, which is 153 less than in the previous year. Of these, 12,786 samples were provided by Association for Bulgarian Rhodope Cattle and Jersey - Smolyan; 228 by Jersey Bulgaria Breeding Association - Sofia; 45 by National Association for Breeding Cattle of the breeds Montbeliard and Simmental - Pleven; and 71 were from animals controlled by EASRAB.

The laboratory for testing rams on own productivity (Shumen town), servicing the selection in fine-wool sheep breeding, makes it possible to determine the size of some selection traits and the quality of wool in terms of physical and mechanical properties, yield and the amount of pure fiber. In 2021, 665 wool samples were tested in it, 11 less than in the previous year.

EASRAB provides breeding organizations with various options for joint activities, cooperation and partnership in breeding male breeding animals, production and cryopreservation of semen from them. In 2021, 10 beef breeders, 7 rams, 6 he-goats, and 32 stallions, mares and growing horses were bred under contracts for joint reproductive activity in the EASRAB facilities.

In 2021, the activity of the National Genetic Laboratory continued, ensuring reliable, scientifically based determination of the animal breed at a modern level, recognized by the international community and allows the performance of reference DNA analyzes. This provides an opportunity to control both the activities of breeding organizations and the implementation of coupled support schemes in the field of animal husbandry. The performed DNA analyses also reveal new regularities necessary for the development of breeding strategies and programs for the conservation of national genetic resources in animal husbandry. During the year, DNA was isolated from 2,867 samples at the National Genetics Laboratory.

The realization of seed material of breeders from the national gene pool is carried out by 9 licensed sperm storage centers, and in six of them an organization has been created for the operation of 10 mobile lines covering the areas with closed sperm storage centers over the years.

In 2021, a total of 33,840 doses of semen were sold (74.2% of dairy breeds, 23.4% of meat-producing breeds, and only 2.4% of buffaloes), which is 321 more than in the previous year. Out of the sold 25,115 doses of semen from dairy breeds of cattle, the largest share belongs to Holstein-Friesian cattle - 25.9%, followed by Bulgarian Rhodope cattle - 23%, Simmental - 15.9%, and Bulgarian Black Cattle - 13.7% . Of the meat-producing breeds, the largest share of doses belongs to Aberdeen Angus - 56.5% and Limousin - 37.8%.

In recent years, there has been a growing interest in preserving the genetic diversity of animals used for agricultural purposes. With the approval of the FAO Global Plan of Action for the Conservation of Genetic Resources in Animal Husbandry, the EASRAB has taken concrete steps for the effective management and long-term conservation of genetic diversity in animal husbandry. To this end, a ten-year Conservation Program for ex situ management of genetic resources in Bulgaria has been developed. It stipulates that breeders of commercial and autochthonous breeds of cattle, buffaloes, sheep, goats and horses, from which genetic material is

preserved, shall enter the State Stations for artificial insemination. With the implementation of the cryopreservation program, the National Genetic Reserve and the National Genetic Bank will be enriched with potentially useful genes from 11 breeds of cattle, 1 breed of buffalo, 26 breeds of sheep, 4 breeds of goats and 13 breeds of horses.

In implementation of the program, over the last years the EASRAB has undertaken activities for restoration of the Bulgarian Red Cattle breed. In this regard, 13 typical animals, matching the breed descriptions of the breed were found and seed material from high-class bulls was provided. By the end of 2021, there were 31 animals of the Bulgarian Red Cattle breed. The main goal of the breeding work with the Bulgarian red cattle is to preserve and increase the available gene pool and to strengthen the biological qualities, ensuring the typicality, productivity and survival of the breed. Due to the narrow genetic diversity and the impossibility of further breeding of the breed in its pure state, a refined cross with bulls from the Angler and Danish Red Cattle breeds was initiated, as both breeds were involved in the production process.

In implementation of the programs for rescue from extinction and restoration of the Danube, Pleven Horse and Bulgarian Heavy Horse breeds, the concluded contracts of EASRAB with the Association for Restoration and Development of the Pleven Horse and Hydran breeds and the Association of Horse Breeders in Bulgaria were still in force in 2021. The aim is to obtain and store semen from stallions of the three breeds, to make embryo transfer, as well as to naturally cover mares of the Danube and Pleven horse breeds. By the end of 2021, 8,820 doses of equine semen were stored in the National Genetic Bank and the National Genetic Reserve, which is 718 doses more than the same period in 2020.

In order to promote the national genetic resources and the breeding activity, EASRAB organized and conducted exhibitions financed by the State Fund for Agriculture under the state aid schemes. Due to the Covid 19 pandemic, public events were severely limited.

In 2021, the EASRAB continued to represent Bulgaria in international bodies and organizations related to the management and conservation of European and global genetic resources in animal husbandry and to participate in working groups, meetings and various projects.

## **7.2. Control and coordination of breeding activities**

In 2021, the EASRAB carried out control by conducting an inspection of the activities of breeding organizations that received support under the state aid scheme "Aid for keeping a herd book and determining the productivity and genetic traits of animals" for animals applying for 2020. In accordance with the requirements of the scheme, the inspections carried out cover animal breeding as follows: 1,723 farms with 124,236 cattle, 261 farms with 14,288 buffaloes, 2,074 farms with 343,066 sheep, 336 farms with 27,862 goats, 38 farms with 33,546 pigs, 6 farms with 895,323 poultry, 374 owners with 8,152 horses, 87 apiaries with 18,320 bee colonies, 12 owners with 379 dogs and 3 farms with 755 rabbits.

Field inspections were carried out on animals that entered the depots for testing young male animals according to their own productivity of 17 breeding organizations.

The Agency has carried out control over the activities of organizing and holding exhibitions by the Breeding Organizations under State Aid Schemes - "Assistance for participation in exhibitions" in 2021 of the Agriculture State Fund.

In 2021, the EASRAB carried out inspections at 11 dog shows and two national horse shows with animals presented by the Bulgarian Sport Horse Association and the Association of Horse Breeders in Bulgaria, as well as an inspection of the National Association of Milky Sheep Breeders - town Veliko Tarnovo and the Association for Breeding Dairy Goat Breeds - town Ruse for the presentation of animals at the National Festival of Sheep Breeders in Lyaskovets.

During the year, the Agency carried out planned inspections of 20 breeding organizations (4 in cattle breeding, 1 in buffalo breeding, 9 in sheep breeding, 1 in goat breeding, 2 in horse breeding, 1 in poultry breeding, 1 in beekeeping, and 1 in pig breeding). As a result of the inspections, the following animals were excluded from the selection control and removed from the BFSA Vetis system: 1,974 cattle, 595 buffaloes, 6,329 sheep, 1,732 goats, and 631 horses.

Unscheduled inspections of the Pleven Black-headed Sheep Breeding Association and the Dairy Goat Breeding Association in Ruse were carried out. During the inspections some minor deficiencies were found for which correction precepts were issued, which were subsequently implemented.

The agency carried out 6 on site inspections based on received written complaints and reports of violations submitted by state authorities, individuals, and legal entities.

In 2021, 23 inspections were carried out per breeds of animals, as follows: cattle breeding - 5 breeding organizations, buffalo breeding - 1, sheep breeding - 9, goat breeding - 2, horse breeding - 3, pig breeding - 1, beekeeping - 1, poultry breeding - 1.

The results of the on-site inspections regarding the declared circumstances were submitted to the Commission for Recognition of Breeding Organizations and Approval of Breeding Programmes. In 2021, the Commission held 40 meetings with 21 organizations recognized as breeding organizations with 33 breeding programs approved by breed.

Due to the lack of approved breeding organizations in the country for certain breeds, in 2021 EASRAB continued to carry out selection activities by species and breeds, as follows:

- Cattle breeding - with 850 cattle of the following breeds: Galloway - 749 animals, Charolais - 84 animals, and Bulgarian Red Cattle - 17 animals;
- Sheep breeding - with 430 sheep, distributed by breeds as follows: Chios - 362 animals and Romanov - 68 animals;
- Goat breeding - with 2,406 goats of the breeds: Alpine - 1,925 animals and Boer - 481 animals.

This activity of the EASRAB enables farmers breeding the said breeds, for which no breeding organizations have been established, to apply for coupled support schemes for animals under selection control.

In connection with the implementation of coupled support schemes in the Livestock sector for animals under selection control, inspections were carried out to identify the animals under selection control, as well as to record the approved animals in the VetIS system of the BFSA. In 2021, the EASRAB entered in the VetIS system: 131,448 cattle of 18 breeds; 16,763 buffaloes of one breed; 347,276 sheep of 34 breeds; 28,080 goats of 9 breeds.

The quality of the breeding material produced, entering and distributed on the territory of the country is controlled by the EASRAB, through the maintenance of a national register of male breeding animals and a Register of breeding herds from the national gene pool.

As of 31.12.2021 the Register of male breeding animals included: 2,563 beef bulls, 386 buffalo bulls, 9,014 goats, 919 roes, 376 stallions, 306 boars, 122 dogs and 77 rabbits.

Information is entered in the Register of Breeding Herds as follows: cattle breeding - 1,870 herds with 136,037 animals, buffalo breeding - 280 herds with 16,070 animals, sheep breeding - 2,136 herds with 337,637 animals, goat breeding - 358 herds with 24,210 animals, pig breeding - 37 herds with 44,141 animals, horse breeding - 996 owners with 11,920 animals, poultry farming – 14 flocks with 1,325,087 birds. The register also includes 163 apiaries with 20,895 bee colonies, 18 owners of dogs of breeds of economic importance with 372 dogs, as well as 3 owners of rabbits with 794 animals.

In 2021, 2 importers were registered in the register of importers of biological products, with 6 notifications submitted for intra-community trade, and 1 for import from third countries. Doses of deep-frozen semen from 97 cattle breeders of 14 breeds were imported: Holstein, Brown Cattle, Montbéliarde, Simmental, Jersey, Wagyu, Piedmontese, Hereford, Limousin, Aberdeen Angus, Blonde d'Aquitaine, Charolais, Galloway and Belgian Blue.

## **8. Agricultural Science, Training and Advisory Activities**

### **8.1. Agricultural Scientific Research and Scientific Service Activities Provided by the Agricultural Academy**

### **8.1.1. Main research priorities in the AA**

The research activity of the Agricultural Academy (AA) is related to the development of projects of national and pan-European importance in the field of agriculture and food industry, based on science-based research in accordance with the agro-ecological conditions of the country, the needs of the population and environmental protection.

The AA carries out its activities within the framework of the state agricultural policy, the Common Agricultural Policy of the European Union (2021 - 2027) and the National Strategy for the Development of Scientific Research (2017 - 2030).

In 2021, the Academy's scientific-applied studies were focused primarily on the scientific fields related to the development of innovation, economy, and society, namely:

- Health and quality of life. Prevention, therapy, green, blue and ecological technologies, biotechnologies, ecological foods;
- Environmental protection. Environmental monitoring. Utilization of raw materials and bioresources. Purification and waste-free technologies;
- Socio-economic development and management.

During the year, the structural units to AA developed total of 232 scientific and research projects. Of these, 109 projects were funded by the Academy's budget subsidy; 55 by the Scientific Research Fund (SRF) and 68 by the national and international organizations and agencies.

The researches aimed at conservation, restoration and sustainable management of soil resources and agroecosystems, assessment and mitigation of the impact of climate change, technology and innovation in conventional and organic farming are leading.

In the field of genetic and selection research, experiments to create new varieties with increased productivity and quality, adapted to the market and climate change, as well as to reproduce the genetic diversity of local varieties as a valuable national treasure, have been conducted.

Research projects for research, maintenance and increase of the species diversity of animal species and aquaculture; strategies for the management of national genetic resources in animal husbandry; feed quality and animal nutrition innovations, were developed.

The scientific and research projects in the directions of traditional and new foods and beverages, durability and quality storage of food products were also developed with the participation of international partner organizations. Based on analyzes, strategies for viable rural areas have been developed, monitoring and evaluation of the implementation of various MA programs and schemes covering rural areas are carried out.

AA scientists continue to work on the priorities set out in the Green Deal, such as the Farm-to-Food strategy, the Zero Pollution for Air, Water and Soil Plan, the circular economy, the ecosystem restoration, and the digitalisation of agriculture in line with the European Digital Decade (2020 - 2030).

A key aspect of the activity of the Academy in 2021 was its participation in 4 projects for modernization of the scientific infrastructure, which will increase the quality of scientific research and the prestige of the AA as a scientific organization.

During the year, AA took part in 6 national scientific programs (NSP): NSP "Protecting the environment and reducing the risk of adverse phenomena and natural disasters", NSP "Healthy foods for a strong bioeconomy and quality of life", NSP "Reproductive biotechnology in animal husbandry in Bulgaria", NSP "Intelligent plant breeding", NSP "Intelligent animal husbandry" and NSP "Young scientists and postdoctoral scholars".

### **8.1.2. Created scientific products, implemented in production**

The creation and improvement of varieties is one of the most important tasks of AA. In 2021, the total number of certificates for the protection of varieties, hybrids, plant lines, and animal breeds in Bulgaria was 288. Out of them, 280 certificates for cultivars of cultivated plants, distributed in list A and list B, are included in the

Official Variety List of the country for 2021, issued annually by IASAS. List A (cereals, feed, oil and industrial crops, beets, potatoes and fruit plants) includes 208 varieties, and list B (vegetables, ornamental, perennial medicinal and aromatic crops, and vines) - 80 varieties.

The certificates maintained for animal breeds are 8 (7 for silkworm breeds and 1 for carp breeds).

The scientific products that received legal protection in 2021 were 15, including 4 varieties of hybrid corn, 3 varieties of pepper, and 1 variety each of sugar sorghum, barley, oats, beans, wheat, cucumbers, tomatoes and zucchini.

#### **8.1.3. Transfer of knowledge and scientific products and vocational training**

In the scientific departments of the Academy, 54 demonstrative fields and farms were created with production and educational purpose. In 2021, AA maintained 29 demonstration fields and organized 17 open days to acquaint farmers with new varieties of plants and breeds of animals, with innovative selection, plant protection, agrochemical and technological practices.

During the year, 8 permanent and temporary stores were opened. The departments of the Academy participated in 14 exhibitions and fairs of national and local nature. By publishing 169 pieces of material in the press and taking part in numerous radio and television shows, the AA scientists have explained scientific facts in simple terms and given concrete recommendations to farmers.

In 2021, 53 scientific-practical conferences and round tables on issues related to modern agriculture, economics and marketing were held. 420 lectures and reports were delivered. 52 short-term training courses were conducted. The specialists of the Academy prepared 439 opinions and conclusions intended for farmers, cooperatives, departments, and commercial companies. Expert assistance was provided to national and international institutions, governing bodies (MA, MES, EU, MoEW, the World Health Organization, the Bulgarian Institute for Standardization).

#### **8.1.4. Qualification structure of scientists and training of doctorate students**

In 2021, 486 scientists worked in the AA, which unfortunately continues the downsizing trend.

During the year, 62 PhD students were trained in the structural units of the Academy. There were 14 newly enrolled PhD students. The training of doctoral students takes place in 21 scientific institutes of the Academy under 30 doctoral programs (a total of 58 accreditations), from 9 professional fields in 4 scientific fields, approved by the National Agency for Training and Accreditation (NEAA). In 2021, the documents of 9 institutes for 22 PhD programs were submitted to the NEAA for the renewal of the program accreditation for training in the doctor degree.

#### **8.1.5. Specialized scientific journals**

In 2021, there was an increase in the publications of the scientists of the Academy. 939 scientific papers were published, of which 258 publications in impact factor and impact rank journals and 346 articles in Web of Science All databases. The articles in peer reviewed foreign and Bulgarian journals with scientific review were 328, and the published monographs and book chapters - 7. The number of quotations was 2,870, of which 2,126 were in journals from the Web of Science and Scopus lists.

### **8.2. Implementation of Science Programs in the Field of Agriculture and Agricultural Sciences, funded by the Ministry of Education and Science (MES)**

**National Science Program (NSP) "Healthy foods for a strong bioeconomy and quality of life", approved by Decision of the Council of Ministers No. 577 of 17.08.2018**

The funds provided by the Ministry of Education and Science for the third year of implementation of the program - 2021, amounted to BGN 1,500,000. The program is implemented jointly by the leading partner - Agricultural University, Plovdiv town and the partner organizations - Bulgarian Academy of Sciences, Agricultural Academy, Sofia University "St. Kliment Ohridski", University of Food Technologies and Thrace University. The overall goal of the program is to conduct basic and applied research to create adapted modern models and technologies for production of healthy foods for a strong regional bioeconomy and to improve the quality of life

of the population of the Republic of Bulgaria. The activities of the program are divided as follows:

- Component 1: Climate change, ecosystem services and food systems;
- Component 2: Plant health and safety in food systems;
- Component 3: Food quality for a better quality of life;
- Component 4: Bioeconomy, food systems and integrated regional development.

The expected results from the program implementation are the following:

Fundamental results:

- Forecast models for the impact of the used agricultural practices on the ecological condition of the agricultural ecosystems and the ecosystem services offered by them.
- Forecast models and scenarios, by using satellite data and maps, for the effect of climate change on the development of priority agro-ecosystems for the country for production of safe products and foods of plant and animal origin.
- Development of an integrated approach for improvement of the ecosystem services, provided by them, related to soil, water, air, biodiversity and ensuring an appropriate landscape in line with climate change.
- Generating new knowledge on the impact of agricultural practices on biodiversity, genetic resources and the biological base of regional bioeconomies.
- Development of new approaches in plant protection and the application of biological methods to control diseases and pests.
- Approaches for implementation of the new generation of value added chains based on regionally specialized bioeconomies, as well as the creation of the necessary knowledge base and technological expertise to serve sectoral bioeconomies.
- New analytical methods, processes, and tools to prove the authenticity and geographical origin of raw materials for the creation of traditional or innovative food products.
- Microbiota of specific and traditional Bulgarian ingredients and products with potential for application in the production of safe and harmless food raw materials.
- New methods for quality control of organic products and food.
- Development of innovative technologies for production of food products with high added value.

Applied results:

- New models and technological solutions for the country's priority agricultural ecosystems, adapted to climate changes and preserving the biodiversity.
- Creating a database of plant and animal genetic resources.
- New technological solutions for sustainable storage and use of the resource base, including local genetic resources and raw materials.
- Adapted plant health management system based on digital methods and management systems (Decision support system) of biological economic units to increase competitiveness.
- Methodology for research of biologically active substances or their extracts and determination of their quality and applicability as new plant polymers or new flavoring/pharmaceutical products for use in the cosmetics and food industry or for improving the quality of life.
- Technologies for use of bioresources (medicinal and medicinal plants, legumes and energy crops, etc.) and their transformation into value-added products (food, feed), bioenergy or in the pharmacological and food industries.

- Development of a system for evaluating the quality and functionality of biological and biologically based products, foods and packaging and their impact on human health.
- Development of an Action Plan to stimulate "Regional bioeconomy ecosystems", built around regionally active innovation systems and clusters (industrial and rural).
- Creation of a Bulgarian technological platform for the transfer of knowledge and intellectual property in the field of agricultural sciences.
- Development of an innovative analytical methodology for assessing the origin, identity and quality of food.
- Development of innovative technologies for obtaining food products based on all-natural ingredients with appropriate taste qualities and high stability.
- Increasing the participation of Bulgarian scientific teams in consortia in the Framework Program for Scientific Research and other European instruments such as BBI, EIT, etc.

During the reporting period, in most teams, the implementation of tasks was carried out according to the initially adopted work and financial plan, but in some of the organizations, difficulties were reported with the use of the scientific infrastructure, the adequate use of administrative and accounting services, the execution of public procurement due to mandatory leaves of absences and delays with the supply of specific reagents for the planned laboratory experiments, restrictions on business trips in the country and abroad, etc. For some of the teams, due to difficulties caused by the pandemic and partial fulfillment of the tasks, a change in the work plan was necessary, as well as a change in the marginal percentages of the headings in the budget, which was permissible according to the text of the program. Most of the team was of the opinion that an extension of the program was necessary in order to be able to carry out the planned activities, which were delayed due to the complicated epidemic situation and, respectively, a large amount of unspent funds was available.

Results of high scientific and applied value were obtained, actions were taken for their publication and popularization, the work on increasing the scientific capacity and training of young scientists and attracting students was successful. Extremely large-scale experimental work was carried out both in the field and in laboratory conditions, and significant scientific results and new knowledge were obtained. The following activities were reported to have made particularly significant progress: Phage display to determine the allergenicity of proteins of soy and wheat origin and other products; MR spectroscopic analyzes for the determination of total phenols in various copper samples for analyzing their qualities; DNA analysis for purity in molluscs and crustaceans; PCR methods for establishing the authenticity of beef, pork and horse meat; new strains of lactic acid bacteria from bees and anthills; an analysis of the nutritional and biological completeness of the products obtained from them was carried out; creating a cooked sausage with reduced nitrite content by incorporating rose flower extract, dihydroquercetin and L-ascorbic acid; new hopped drinks where the latter was replaced by the inclusion of citrus essential oils; technology for obtaining food polysaccharides from edible fungi of the Basidiomycetes class; successful experiments in the packaging of food products based on materials of biodegradable origin, etc.

Full information about the program can be found on the following website: <http://www.nnp-food.au-plovdiv.bg>.

**National Science Program "Reproductive Biotechnologies in Animal Husbandry in Bulgaria" (NNP REPROBIOTECH), approved by the Council of Ministers No. 577 / 17.08.2018**

The funds provided by the Ministry of Education and Science for the entire period of implementation of the program (2018-2021) amounted to BGN 1,444,975. The overall goal of the program is to optimize the reproductive process in animal husbandry through the introduction of innovative biotechnologies and knowledge transfer. REPROBIOTECH is aimed at achieving three specific goals related to reproductive biotechnology in animal husbandry:

- Use of fresh and cryopreserved genetic material.

- Improving reproductive potential through the use of non-hormonal bioactive supplements during important periods for reproduction.
- Knowledge transfer and reproductive biotechnology.

The program is implemented jointly in cooperation between the leading organization - Thrace University and partner organizations - Institute of Biology and Immunology of Reproduction "Acad. K. Bratanov" at the Bulgarian Academy of Sciences, the Agricultural Academy, the Agricultural University and the University of Food Technologies. NSP REPROBIOTECH was developed in three work packages.

During the reporting period under the NSP REPROBIOTECH, all planned activities were completed, and in the middle of 2021, its implementation was finally completed, with most indicators even exceeded. Its final report was published on the Ministry of Education and Science web site <https://www.mon.bg/bg/101040> and full information about the program can be found on the following website: <http://reprobiotech.eu/>.

#### **National Scientific Program "Intelligent Animal Husbandry", approved by Decision No. 866/26 November 2020 of the Council of Ministers**

The funding by the Ministry of Education and Science for 2021 amounted to BGN 1,800,000. The implementation of the program aims to provide innovative methods and means for intelligent and efficient animal husbandry to farmers with reduced human resources and reduced impact on the environment, as well as easy and controlled online access to means, resources and tools for collaboration and provision of high-performance information and communication technologies for computing, connectivity, data storage, and for accessing virtual research ecosystems as well as client networks. In 2021, the teamwork, management and administrative activities ensured a balance between the set objectives, the approved budget and the time frame for the implementation of the program in accordance with the qualitative and quantitative criteria and standards of implementation. The publicity and communication ensured public-awareness of the scientific results, an active presence in the media and the attraction of new partnerships from the country and abroad to the network of the NSP "Intelligent Animal Husbandry". The obtained results outlined an intensive activity in the direction of developing prototypes, patents, three-dimensional models, profiled services for intelligent and efficient animal husbandry, publications in specialized magazines (including TOP 10% in the Thompson-Reuters WoS ranking); organizing events in a highly specialized environment and equipment. The multiplication of scientific products found expression in project proposals submitted to the "Scientific Research" Fund, Erasmus+ and Horizon Europe. The focus is on working with young researchers and students who are active participants in each work package. Information can also be found on the developed program website: <https://inte-zhivo.bg/>.

#### **National Scientific Program "Intelligent Crop Production", approved by Decision No. 866/26 November 2020 of the Council of Ministers**

The funding by the Ministry of Education and Science for 2021 amounted to BGN 1,500,000. The implementation of the program aims to conduct targeted scientific and applied research in relation to the application of artificial intelligence in agriculture, reduce costs for farmers, improve soil management and water quality, limit the use of fertilizers and pesticides, reduce emissions of greenhouse gases, improve the biodiversity and create healthier environment for farmers and citizens. During the past first financial year of the NSP "Intelligent Plant Breeding", organizational and preparatory activities were successfully carried out to ensure the implementation of scientific and experimental activities, such as coordinating teams of scientists, specialists and technicians, preparing specifications of the necessary materials, consumables, durable material assets and services, bringing out the experimental (field and laboratory) and scientific activity according to the accepted work and financial plan. Participation in scientific forums (online or in-person) and workshops, meetings to present the scientific and practical results of the program implementation, development and functioning of the program website, etc. were considered. The obtained results outlined an intensive activity in the direction of developing fundamental and applied scientific research for the creation of models for robotic technologies, digital methods for diagnosis and forecasting, as well as for digital management of agricultural holdings with a crop-growing direction to ensure a sustainable and efficient food system. Additional information can be found on the developed program website: <https://nnp-ir.bg/>.



### 8.3. Advisory activities

A significant part of the state policy for providing advisory services to ensure an adequate level of technical and economic knowledge and skills in the agricultural and forestry sector in order to implement the CAP and increase the competitiveness of Bulgarian producers in the European single market is implemented through the National Agricultural Advisory Service (NAAS). The activities of the NAAS are diverse and complement each other in order to provide different services according to the needs of farmers and for the information to reach a wider range of people.

In 2021, the activity of the NAAS has been significantly affected by the COVID-19 pandemic. The Service has continued to actively work with farmers through the use of digital technologies for communication, consultation and training.

In 2021, the experts from the Territorial Regional Offices (TRO) of NAAS provided free of charge to candidates under sub-measure 6.3. "Start-up aid for the development of small farms", sub-measure 6.1 "Start-up aid for young farmers" and sub-measure 4.1.2. "Investments in agricultural holdings under the Thematic sub-program for development of small farms" of the RDP 2014-2020 consulting and technical assistance in submitting their project proposals in UMIS 2020. The Service experts provided free consultations to farmers under measure 21 "Extraordinary temporary support for farmers and small and medium-sized enterprises particularly affected by the COVID-19 crisis" of the RDP 2014 - 2020.

The Service supports the transfer and application of scientific and practical achievements in the field of agriculture and thus helps to improve the "research - advice in agriculture - agricultural business" relation. In 2021, the activities related to the organization of demonstration events were increased in order to improve mutual learning and exchange of knowledge between farmers and strengthen the link between them. Conducting online trainings/seminars becomes a common practice.

Remote reception (consultation days) are held in different settlements, which are far from the regional centers, in order to facilitate the access of farmers to consulting services. There are also more and more electronic services and various digital tools (online information meetings, seminars, demonstrations and trainings) for communication with farmers.

The NAAS disseminates useful information to farmers and promotes good practices in applying for and implementing RDP projects.

All consultations provided by the NAAS are free of charge for farmers.

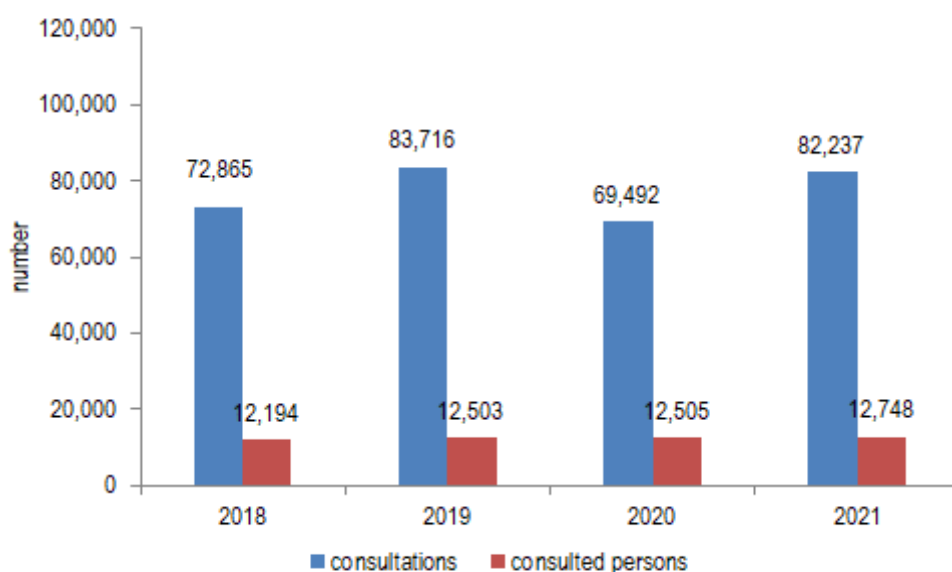
In 2021, a total of 12,748 people received 82,237 consultations from NAAS experts. With the increased duration of consultations, the number of consulted persons increased by about 2% compared to the previous year, and the number of consultations - by 18%.

The NAAS activities are mainly focused to the following target groups: farmers who have already started their agricultural activity (this group is dominated by small farms); persons who want to start an agricultural activity; persons living in rural areas, including forest owners.

In 2021, experts from the Service made 2,162 on-site visits to agricultural holdings, which is 1% more than in 2020. During the on-site visits to their farms, the farmers received specific advice and an assessment of the conditions in which agricultural crops were grown and animals reared. This helped increase the quantity and quality of products in compliance with European norms and standards.

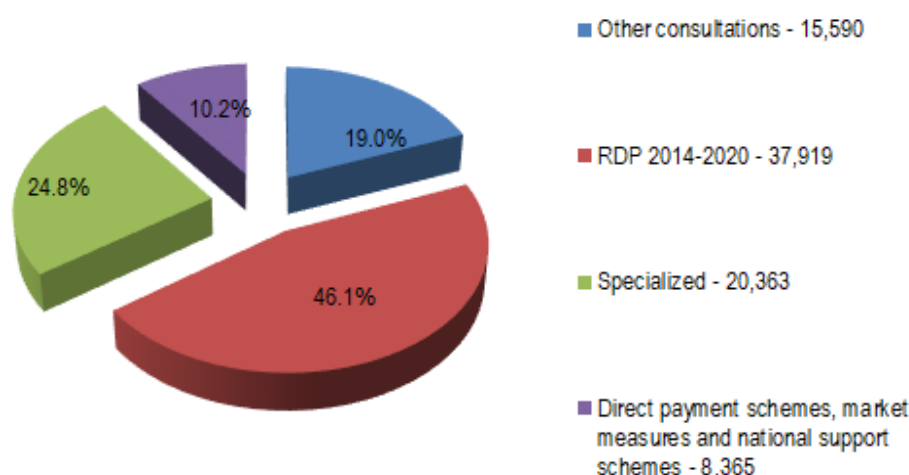
In 2021, NAAS experts provided 7,649 consultations on topics related to the third National Action Plan on Climate Change (NAPCC) for the period 2013-2020. 5,809 people were consulted - 55% less than 2020, on topics related to different types of activities with direct or indirect effect on the reduction of greenhouse gas emissions.

**Figure V.2. Total number of consultations made and persons consulted for the period 2018-2021**



Source: NAAS

**Figure V.3. Provided consultations by type in 2021**



Source: NAAS

Top position during the year was occupied by consultations under the RDP 2014 - 2020 - 37,919, which is 20% more than in 2020. They were mainly related to the support opportunities under sub-measure 6.3 "Start-up aid for the development of small farms" and sub-measure 4.1 "Support for investments in agricultural holdings" under the thematic sub-programme for the development of small farms" from the RDP 2014-2020, as well as under sub-measure 6.1 "Start-up assistance for young farmers", measure 9 "Creation of producer groups and organizations", measure 11 "Organic agriculture", measure 21 "Extraordinary temporary support for farmers and SMEs that are particularly affected by the crisis caused by COVID-19" from the RDP 2014 - 2020.

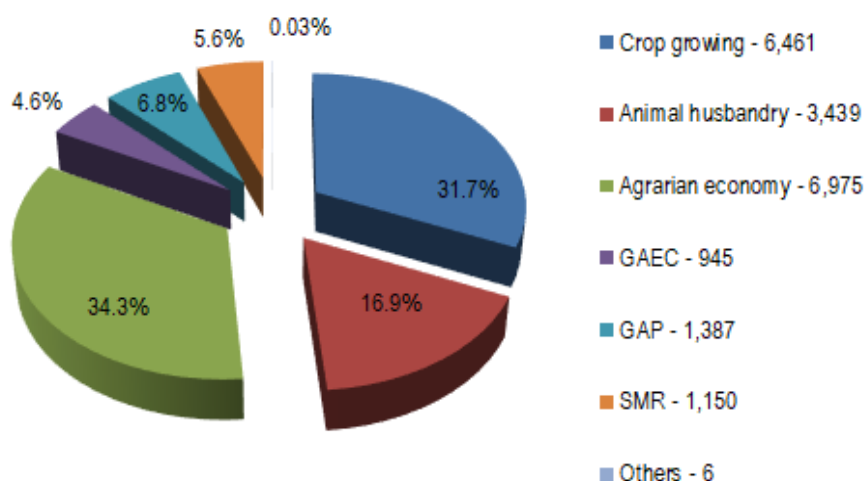
The 20,363 specialized consultations came second and they increased by 21% compared to 2020. The topics of the specialized consultations provided in 2021 can be summarized in the following main areas: crop growing (including organic plant growing) - 6,461; animal husbandry (incl. organic animal husbandry) - 3,439; agrarian economy - 6,975; statutory management requirements (SMR) - 1,150; rules for good agricultural

practice (GAP) - 1,387; conditions for maintaining the land in good agricultural and ecological condition (GAEC) - 945; others - 6.

The number of consultations regarding the Direct Payment Schemes, Market Measures and National Support Schemes group in 2021 was 8,365, 16% less than the previous year. Of the various topics of the consultations on direct payments, greatest interest was shown in the consultations on the Single Area Payment Scheme; The production-linked support schemes for fruit and vegetables; National Beekeeping Program; the payment scheme for agricultural practices that are favorable to the climate and the environment (green direct payments).

There were 15,590 consultations in the "Others" group, which was an increase of 40% compared to 2020. Almost a third of the consultations in this category (5,990) were given regarding the "Registration and re-registration of farmers under Ordinance 3 on the establishment and maintenance of a register of farmers from 1999." Most often, these consultations are of interest to people for whom agriculture has been an ancillary activity in recent years or do not have the necessary experience and want to turn agricultural production into a main activity. This group also includes consultations on other registration, permit and license regimes related to agriculture; concluding contracts for the use of agricultural lands; registrations and/or categorizations of livestock facilities, incl. apiaries; participations and conclusion of agreements under Art. 37c of the Ownership and Use of Agricultural Land Act; agrochemical analysis of soils; healthy and safe working conditions in agricultural holdings.

**Figure V.4. Distribution of specialized consultations provided in 2021**



Source: NAAS

### 8.3.1. Vocational training

The Vocational Training Center (VTC) at the NAAS is licensed by the National Agency for Vocational Education and Training (NAVET). It provides high-quality training with the main goal of farmers to acquire theoretical and practical knowledge related to the main problems in the field of environmental protection, soil, water, climate change, biodiversity.

In 2021, 6 people enrolled in the Agroecology course in the VTC at the NAAS, which consisted of 30 hours in part of the profession "Farmer", specialty "Agriculturist". In the course of training, the students have mastered the principles and requirements of agroecology and organic farming, related to the successful implementation of activities under measure 10 "Agroecology and climate" and measure 11 "Organic farming" of the RDP 2014-2020.

### 8.3.2. Improving the "research - advice in agriculture - agricultural business" link

In 2021, a total of 113 joint information and training seminars were held, some of them online, due to the complicated epidemiological situation related to COVID-19.

20 seminars were also held with demonstrations in the farms of clients of the NAAS. More than 5,455 people have registered to participate in the seminars. Lecturers at the events were 162 experts from the National Institute of Health and Welfare, scientists and specialists from the AA, the Agricultural University in Plovdiv, the Thrace University in Stara Zagora, Angel Kanchev University of Ruse, University of Economics in Varna, University of National and World Economy in Sofia, Forestry University in Sofia, etc.

At the seminars, specialized topics, information about the activities of the Service, the possibilities to support farmers under the RDP 2014-2020 and through direct payments were presented.

### **8.3.3. Information support**

In 2021, NAAS experts organized 181 informational events (not including remote receptions), including: 103 seminars, 51 information meetings, 20 seminars with demonstrations, 7 specialized exhibitions, festivals and competitions. The total number of participants in the information events was 6,245.

During the year, a total of 706 remote receptions were held (46% more compared to 2020), with 2,110 persons consulted in this way. The aim of the extended reception/advisory days is to expand and facilitate access to the consultancy services for farmers whose farms are located far from regional cities. At the remote receptions, farmers received up-to-date information and advice in the field of agriculture and about the possibilities for support under measures from the RDP 2014-2020, the direct payment schemes, and the national support schemes.

120 pieces of Information materials (information leaflets, brochures, bulletins, farmer's calendar) on current topics and issues were prepared and disseminated to support their work with farmers.

Useful information for farmers was also provided through the NAAS website and social media.

### **8.3.4. Agrochemical analyses**

The areas of laboratory activity of the Center for Testing and Assessment of Soil Suitability and Quality (CTASSQ) are related to the requirements for improving the activity and increasing the competitiveness of farms.

CTASSQ assists small farms in receiving advisory packages from the NAAS experts.

The Center performs agrochemical analyses of soil samples for acidity, digestible phosphorus and potassium, mineral nitrogen (ammonia and nitrate), total nitrogen in soils, determination of active calcium, determination of humus and determination of the norm for liming acid soils.

In 2021, the laboratory received 836 soil samples from 434 persons, on the basis of which 801 samples were made for 3,907 determinations (analyses). Based on the performed analyses, 524 recommendations for fertilization were prepared. The received soil samples were mainly in connection with the provision of the consulting packages under sub-measure 2.1.2 "Consulting services for small farms" under measure 2 "Consulting services, farm management services and farm replacement services" under RDP 2014-2020.

### **8.3.5. NAAS activity under sub-measure 2.1.2 "Consultancy services for small farmers"**

The implementation of sub-measure 2.1.2 "Consultancy services for small agricultural holdings" under measure 2 "Consultancy services, farm management services and farm substitution services" of the RDP for the period 2014-2020 started in 2016 and NAAS was the only advisory organization designated at this stage and approved by the EC to provide consulting services to small farms.

Under sub-measure 2.1.2, the NAAS provides six main advisory packages entirely free of charge, contributing to the economic development and the strengthening of small farms through modernization and technological renewal, as well as to improving environmental protection and combating climate change.

The total number of submitted applications for receiving a consulting package under sub-measure 2.1.2 in 2021 was 1,134, on the basis of which 1,103 written reports were prepared. Over 98% of the submitted applications were closed by providing the requested advisory packages to the farmers.

### **8.3.6. Activity of the NAAS under measure 6 "Development of farms and enterprises" under RDP 2014-2020**

In November 2021, a selection procedure was launched under sub-measure 6.3 "Start-up aid for the development of small farms" from measure 6 "Development of farms and enterprises" of the RDP 2014-2020. In this regard, the NAAS launched a procedure for accepting applications for receiving a consulting package, including preparation of a business plan and basic information about the project proposal, for applying under sub-measure 6.3.

In the period of receiving applications (30.11.2021 - 02.03.2022) under sub-measure 6.3 in UMIS 2020, 1,629 project proposals were registered, some of which were repeated. From the submitted projects, the Office's experts prepared 1,223 proposals, which was 80% of all submitted project proposals under the sub-measure.

### **8.3.7. Common Agricultural Policy 2021 - 2027**

In 2021, the European Parliament and the European Council adopted new regulations on the CAP after 2022 and the new programming period 2023-2027. One of the highlights of the new CAP policy is related to promoting and supporting activities aimed at wider use of modern technologies, knowledge, and innovations. These activities will be supported in the Member States through the Agricultural Knowledge and Innovation Systems (AKIS), aimed at interaction between people and organizations, promotion of mutual learning, generation, sharing and use of knowledge and information related to agriculture. The systems should include a wide variety of participants - farmers, advisers, researchers, educational and training institutions, raw material suppliers, retailers, media representatives, ministries, as part of national or regional AKIS systems. These persons can be contacted by the advisory services in each Member State. For Bulgaria, such a role will be performed by the NAAS, which will guarantee to the EC that our country has sufficient capacity for the successful implementation of the RDP.

### **8.3.8. International activity**

NAAS is a member of the European Association of Agricultural and Rural Advisory Service Organizations (European Forum of Agricultural and Rural Advisory Services (EUFRAS) and South Eastern Europe Advisory Service Network (SEASN)).

In 2021, the Service took part in the implementation of the following projects and programs:

- project "Networking European Farms to Enhance Cross Fertilisation and Innovation Uptake through Demonstration" (NEFERTITI) under the Horizon Program;
- project "Connecting advisers to boost interactive innovation in agriculture and forestry" under the Horizon 2020 Program;
- project "Technical assistance on local farm advisory services. Location – northern part of Cyprus" in consortium with NIRAS IC (Poland);
- project under the IPARD Program for the Republic of Turkey on the topic "Protection of Waters against Agricultural Pollution through Establishment of a Monitoring and Reporting Methodology for the Nitrate Action Plans";
- IPA 2 program of Serbia under the project "Support for the operational structure of IPARD in the Republic of Serbia";
- project "Modernization of agriculture through more effective and efficient Agricultural Knowledge and Information Systems (AKIS)";
- project "European-wide network of pilot farmers implementing and demonstrating climate smart solutions for a carbon neutral Europe" (Climate Farm Demo);
- project "Demonstration network on climate-smart farming – linking pilot farms".

## **9. Hail Suppression**

The geographical position and orography of the country predetermine Bulgaria as one of the countries in Europe with high frequency and power of hail processes.

In recent years, there has been an increase in the frequency and severity of hazardous phenomena such as hailstorms, floods, tornadoes and lightning. Predictions based on numerical models in different climate change scenarios confirm this increase in the future. One of the geographical areas where a significant increase in extreme cases is forecast is Southeast Europe.

Bulgaria is one of the countries in Europe where the trend of increasing the frequency and strength of hail processes in general persists, despite the observed fluctuations in the degree of urban activity over the years.

The territory protected by the Hail Suppression Executive Agency (HSEA) in 2021 is approximately 52 million decares, using rockets and aircrafts.

In 2021, a meteorological Doppler radar station was installed in a radar center in Shumen, which provides detailed radar monitoring of the atmosphere over Bulgaria, necessary for the implementation of the two methods of impact on hazardous clouds.

HSEA has built a meteorological radar network, which is used for monitoring and detection and ultra-short-term forecasting for severe storms, lightning, torrents, hailstorms and other adverse weather events over the country. Meteorological radar information is transmitted around the clock to certain structures at the Ministry of Interior, the Air Force, the State-Owned Enterprise "Air Traffic Management", the National Institute of Meteorology and Hydrology, and Sofia Municipality. Meteorological information is constantly provided through the Agency's website.

Joint teams of HSEA and the Regional Directorates of Agriculture conduct surveys for damage in protected areas after each impact. The Agency received information on the sown areas, the condition, and the phase of development of crops, harvested areas, average yield, etc.

Season 2021 season is classified with a "high degree of hail activity" for Southern and Northern Bulgaria.

Based on synoptic forecasts and the phase of development of agricultural crops in the protected territories, in 2021 the active season for anti-hail defense with the rocket method on the territory of the country opened on 21<sup>st</sup> April and closed on 30<sup>th</sup> September.

The beginning of the active season for anti-hail defense with the aircraft method in north-central and northeastern Bulgaria began on 14 May 2021 and ended on 26 August 2021.

### **9.1. Active impacts with a rocket method**

The rocket method is applied in the regions of Vidin, Montana, Vratsa, Pleven, Pazardzhik, Plovdiv, Stara Zagora, Haskovo, and Sliven, and the protected territory is over 21.8 million decares.

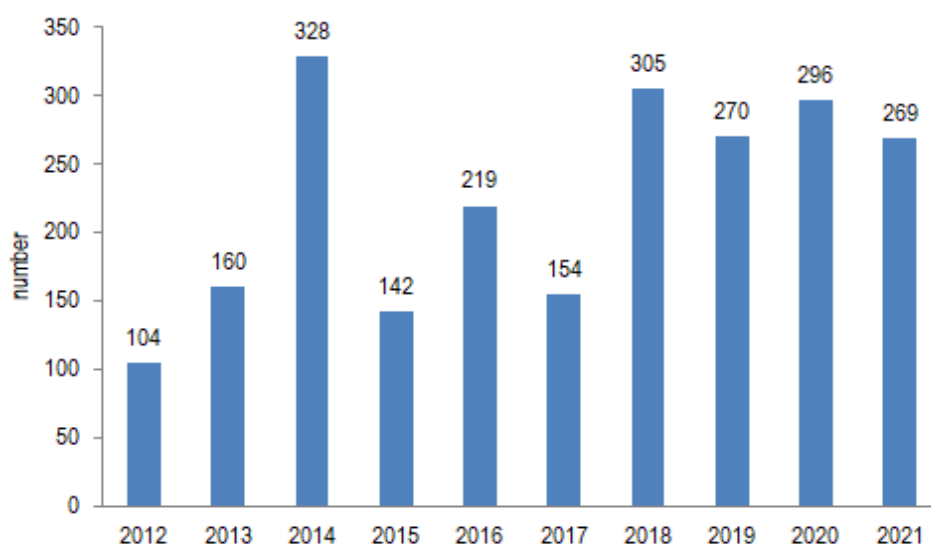
In 2021, 269 impacts were carried out in 64 days with the rocket method in Northern and Southern Bulgaria, and 1,152 hail clouds were treated. The total hail hazard time was over 226 hours.

The last ten days of April 2021 were characterized by atypical for spring development of powerful hail clouds in Southern Bulgaria. 6 actions were carried out in 2 days and 21 cells were treated, with a total time of hail stage over 4 hours.

The month of May was characterized by an atypically low frequency of hail-threatening cumulus clouds. 43 actions were carried out in 12 days. 165 hail hazard cells with a total treatment time of 1,988 minutes were treated.

Characteristic for the month of June 2021 was the high frequency of formation of hail-threatening cumulus clouds. In the period June 6 - 19, active actions for hail-suppression were carried out every day. In total, for the month, 125 activities were carried out in 21 days. 605 hail-threatening cloud cells were processed. The time for active action on the cells in the hail hazard stage was over 103 hours (6,203 minutes).

**Figure V.5. Actions of the hail suppression system with rockets in the period 2012 - 2021**



Source: HSEA

In the month of July, there was an increase in days with sunny weather and a decrease in those with hail-threatening processes. However, the latter are characterized by considerable intensity. A total of 47 impacts were carried out (30 in Southern and 17 in Northern Bulgaria) in 13 days. The number of processed hail-threatening cloud cells was 223 (120 in the southern parts). The total time of impact on hail cells was more than 56 hours (3,382 minutes). The strongest process (powerful supercell) was registered on July 1, 2021 in Northern Bulgaria. All regional directorates worked on it, processing 81 cloud cells with 1,900 rockets, and the total processing time was over 24 hours. Despite the efforts made, one of the cloud cells from the leading flow moved to the south (due to the formed mesocyclone) and fell outside the territory protected by the HSEA. This was the cause of the damages caused by this cell.

The month of August was characterized by an typically low frequency of convective processes. 37 impacts were carried out (33 of those in Southern Bulgaria) on 114 hail-threatening cells on 11 dates.

In September, rainfall did not have the intensity of summer rainfall. 11 active impacts on 24 hail-threatening cells were carried out on 5 dates total. All impacts were carried out in Southern Bulgaria. The greatest concentration of hail cells was found during the period September 18 - 20, 2021, when two cold atmospheric fronts from the northwest passed through the country.

Throughout the season of cloud seeding, crop affecting hail occurred only from 25 processed cells. Out of all 64 days in which actions were carried out, damage to crops in the territory protected by the HSEA was registered only on 9 dates in May, June, July, August, and September. There was hail damage to agricultural production on 145,006 dca with an average damage rate of 46.84%.

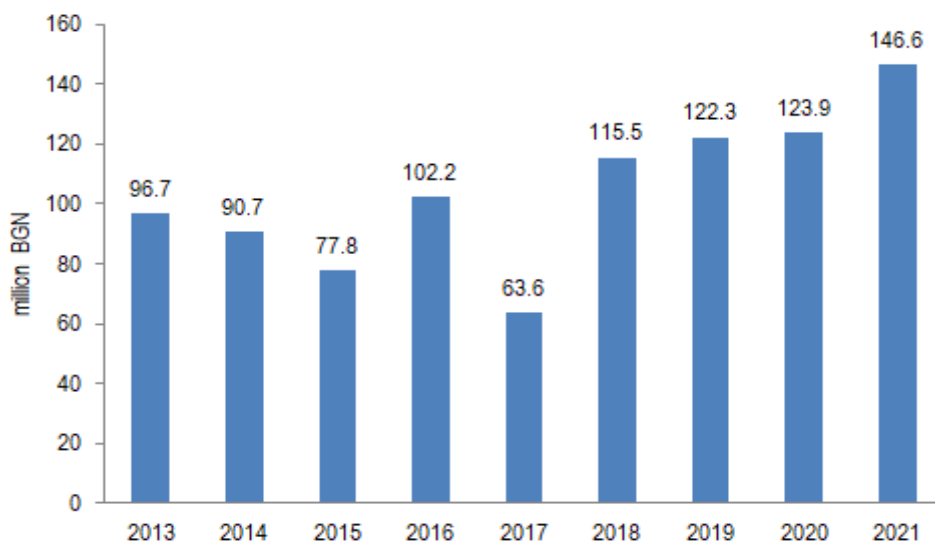
The main reasons for the damage in the protected area were:

- entry of cloud cells with high hail hazard parameters and formed hailstones, which makes it impossible to compete;
- hurricane winds with a speed of up to 40 m/sec, leading to a decrease in the concentration of the reagent in the seeding area;
- reduced concentration of artificial competitive ice-forming nuclei in rapidly growing cells due to insufficient growth of reagent ice-forming nuclei to competitive sizes;
- reduced concentration of artificial competitive ice-forming nuclei due to restricted firing over settlements (prohibited azimuths (directions) for firing);

- insufficient seeding and interruption of the treatment due to the shortage of anti-hail rockets at the rocket sites.

According to the adopted Methodology for determining the economic efficiency of hail protection, in 2021 the value of the saved production as a result of cloud seeding carried out by HSEA is estimated at BGN 146,599,924.

**Figure V.6. Value of the production, saved from hail, during the period 2013-2021, million BGN**



Source: HSEA

## 9.2. Active impacts with the aircraft method

In connection with the strategy for development of hail protection, envisaging expansion of its scope, in 2021 a pilot project was launched to suppress hail using aircraft. The aircraft method covers the territories not protected by rockets of about 30 million decares in north-central and northeastern Bulgaria. Its advantage is that it also protects urban areas, unlike the rocket method, where there is a ban on firing over populated areas.

The implementation of operations for seeding cumulonimbus clouds is managed by the Operations Center located at Gorna Oryahovitsa Airport, the district of Veliko Tarnovo. The Unit for Technical and Line Maintenance of Aircraft (includes engineers and technicians) as well as the Unit of Aircraft Pilots are also located there.

In the cumulonimbus clouds aircraft seeding a methodology is used, which includes:

- use of TITAN software - for identification and ultra-short-term forecast of thunderstorms;
- tracking the trajectory of the aircraft according to the telemetry data (altitude and speed);
- use of radio communication equipment by the aircraft and the Operations Center operating on the same frequency.

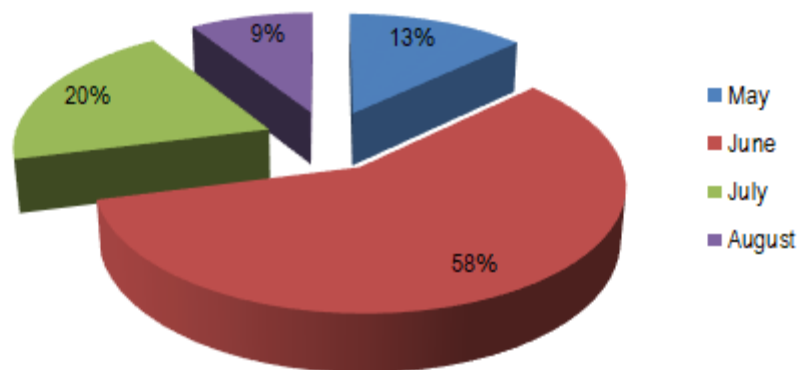
Three aircraft equipped with a system for igniting silver iodide (AgI) reagent sticks, located on the half-wings behind the engines, were used for the implementation of the project. The maximum number of sticks was 72 for each aircraft.

During the active season, in the territory protected by aircraft, the observed convective processes are of the multicellular type - linear and clusters, with clusters prevailing. On 1<sup>st</sup> of July during the development of the supercell over the district of Pleven, it was seeded simultaneously with an aircraft and rockets. In a small number of days, local convective processes or isolated single cells were also observed.



Impacts with the aircraft method were carried out in 31 days. The days with the most impacts were in June, when more than half of the impacts for 2021 took place. Then a total of 171 cloud cells were seeded and 100 hail cells were processed.

**Figure V.7. Percentage distribution of the number of affected hail cells per months of 2021**



Source: HSEA

A total of 4,580 sticks were used during the hail suppression period. On average, the cost of seeding sticks for 1 cell is between 24 and 30. The cost depends on the lifetime of the cloud cell in the hail-threatening stage and its power, as determined by its radar characteristics.

For the purposes of the implementation of the contract for anti-hail protection with aircraft in 2021, aircraft flights were permitted only in the uncontrolled airspace up to 3,000 m, the details of which were laid down in the "Operational concept for impact on potentially hail-threatening clouds on the territory of the Republic of Bulgaria using the aircraft method".

In the area protected by aircraft, there are certain sectors in which cloud seeding activities cannot be carried out. These are areas related to the approaches for landing and takeoff of planes at the civil airports of Varna, Burgas and Gorna Oryahovitsa, as well as military areas. A no-fly zone of 5 nautical miles along the state border was also prohibited. The restrictions were imposed by the respective institutions and are set in the Operational Concept for impacting potentially hail-threatening clouds on the territory of the Republic of Bulgaria via aircraft.

In the territory protected by aircraft, which has an area of about 30 million decares, hail was allowed to fall on 53,329 decares with a damage rate of 5 to 100%. This area is only 0.178% of the territory covered by aircraft defense.

The economic effectiveness of anti-hail defense with the aircraft method has not been evaluated, due to the lack of a methodology for its calculation. The use of the methodology for a rocket method is not applicable, since there is a lack of reliable data on the affected crops (areas and percentage of damage) for a 15-year period of the defense. The purpose of the pilot project is to check and subsequently optimize the organization and methodology of conducting active impact operations using aircraft. In case the use of this method continues, HSEA is ready to start developing a methodology for calculating the economic efficiency.

In 2022, a contract was concluded with the Agriculture State Fund for a grant under sub-measure 5.1 "Support for investments in preventive measures aimed at limiting the consequences of probable natural disasters, adverse climatic phenomena and catastrophic events" of measure 5 "Recovery of agricultural production potential that suffered damage as a result of natural disasters and introduction of appropriate

preventive measures" from the RDP 2014-2020. The total value of the funding was BGN 2,400,460.35, of which the maximum amount of the grant was BGN 1,920,368.26, and the rest of BGN 480,092.02 was co-financed by HSEA. The project included provision of: radio-electronic equipment for an "S" band Doppler digital weather radar station; computer configurations and monitors for processing radar information; server configuration; a software package for performing active impacts on hail-threatening clouds; six new height-passable light trucks for transporting anti-hail equipment and rockets; external cable power supply of radar stations; building an antenna tower.

## **10. Reducing the Regulatory and Administrative Burden on Business**

### **10.1. Applied Regulatory Regimes in the MA System**

In the context of the initiative of the European Commission and the Government of the Republic of Bulgaria to reduce the administrative and regulatory burden on businesses and citizens, in early 2022 the Ministry of Agriculture made an annual review of regulatory regimes applied in the system in 2021. The review was aimed at identifying the opportunities to reduce the regulatory and administrative burden on businesses and citizens, creating better conditions for business development by improving access and improving the quality of public services, and achieving higher efficiency of public spending.

The main mechanism for achieving this goal is the elimination of unnecessary regulatory regimes and optimization of the procedures for their implementation, introduction of electronic administrative services and increasing the volume of publicly available information for business operators and citizens.

The expected results from the reduction of the regulatory burden on business are:

- increasing the competitiveness of Bulgarian agriculture;
- providing an opportunity for the business to plan the impact of regulation;
- stimulating the development of economic activity;
- ensuring equal conditions for conducting business and creating conditions for fair competition.

In the process of identifying the current regulatory regimes in the MA system, all special laws and regulations in the fields of agriculture, food, forests, and fisheries were analyzed.

Following the review of the regulatory regimes in the MA system, as of 1 January 2022, 170 regulatory regimes related to the regulation of economic activity in the field of agriculture, fisheries and forests were identified, including:

- licensing - 10;
- registration - 67;
- permits - 84;
- certificates- 3;
- notifying - 2;
- coordinating - 4.

Of the total number of regulatory regimes, 44 were administered by the Ministry of Agriculture - headquarters, and the remaining 126 - by various structures of the ministry system.

### **10.2. Measures Taken in 2021 to Reduce the Regulatory and Administrative Burden on Businesses**

Pursuant to the policy of reducing the administrative and regulatory burden for business, in 2021 actions were taken in the MA system aimed at easing existing regulatory regimes, with the aim of creating an optimal business environment. Amendments and supplements to legal acts regulating the economic relations in the agriculture, fisheries and forestry sectors were adopted, with which 1 regulatory regime was revoked and 2 regulatory regimes were eased.

## **11. Risk and crisis management in agriculture**

Risk and crisis management in the Agriculture sector in 2021 was related to the implementation of measures in two main areas - measures set out in the Risk and Crisis Management Program in the Agriculture sector and measures to address the crisis caused by COVID-19.

The COVID-19 pandemic has shown the vulnerability of the European food chain in the event of severe supply disruptions. Existing measures under the Common Agricultural Policy and other relevant EU policies have helped to mitigate the most severe cases of shortages and speed up recovery, but have also highlighted the need for rapid planning and adequate timely action to overcome future crises.

The crisis caused by the COVID-19 pandemic caused farmers in the member states economic and financial difficulties. Given the specific vulnerability of these economic operators, in order to mitigate the financial consequences and cash flow problems of this crisis, in the last two years the European Commission has taken a number of measures in the individual sectors of agriculture and food industry. One part was related to funding from European funds. Also, the EU gave the option to the member states to redirect financial resources under various national programs to measures to deal with the consequences of the crisis without the explicit approval of the Commission.

The management of risks in agriculture, the food industry, fisheries and forests in Bulgaria, as well as the limitation of the possibilities for their eventual manifestation, are of essential importance to ensure the sustainable development of these sectors. The implementation of the measures to manage the identified risks is funded from European funds and from the state budget of the Republic of Bulgaria.

The main directions for which funds were spent in 2021 were for the implementation of measures and activities for:

- prevention against infectious diseases of animals and plants;
- limitation of the harmful influence of natural and climatic phenomena;
- income support for farmers and employed persons in the Fisheries sector;
- increasing the competitiveness of the sectors related to the primary production of agricultural products, fisheries, small and medium-sized enterprises from the food industry;
- conservation of natural resources and biological diversity.

The measures and actions undertaken to overcome the negative impact of the identified risks in agriculture, food industry, fisheries and forests are divided into three main groups depending on the nature of the risks: sanitary risks, natural-climatic risks and economic risks.

### **11.1. Sanitary risks**

#### **11.1.1. Specific risks in the Livestock sector**

The sanitary risks in the Livestock sector were related to animal health and were managed via three tools:

- **State aid**

There were two state aids that was provided in order to minimize the manifestation of sanitary risks in the Livestock sector: "Aid to compensate farmers for costs related to implementation of measures under the State Prophylactic Program and the Programs for the Surveillance and Eradication of Animal Diseases" and "Aid to compensate for the costs of disposing and destroying of dead animals". The funds spent in 2021 for the implementation of the measures under the mentioned two state aids were in the amount of BGN 27,122,252.

- **Measures under the Rural Development Programme (RDP) 2014 - 2020**

As early as in 2020, with the Sixth Amendment of the RDP 2014 - 2020, approved by EC decision of 27.04.2020, a new measure 5 "Restoration of agricultural production potential and introduction of appropriate preventive measures" was included in the RDP 2014 - 2020. The measure has two sub-measures 5.1 "Support

for investments in preventive measures aimed at limiting the consequences of probable natural disasters, adverse climatic phenomena and catastrophic events" and sub-measure 5.2 "Investments to restore the potential of agricultural land and agricultural production potential disrupted by natural disasters, adverse climatic events and catastrophic events".

Through these measures, it is possible to take preventive actions aimed at preventing and limiting the possibilities for the spread of epizootics and mass infectious diseases among farm animals, as well as prevention of dangerous meteorological phenomena, such as hail. These preventive measures help protect agricultural production from the impact of natural disasters and help limit the possibility of the spread of ASF and other infectious diseases in poultry and small ruminants. The actions undertaken provide an opportunity to increase hygiene and improve the biological environment in livestock farms, which in turn contributes to minimizing the risk of infectious diseases in reared animals.

- **Control during cross-border transit when importing consignments into the EU from third countries and when moving consignments between member states.**

The management of the risks of infectious diseases in animals during cross-border transit of import consignments is carried out through the implementation of animal disease surveillance and eradication programs and a plan for sampling feed and food of animal and non-animal origin.

#### **11.1.2. Specific risks in the Crop and Forestry sectors**

The identified sanitary risks in the Crop and Forestry sectors are related to the spread of quarantine pests on plants and plant products, and diseases, pests and abiotic factors in forests.

The spent financial resource for risk management in the Crop Growing and Forestry sectors in 2021 was in the amount of BGN 16,365,769, of which BGN 16,248,441 or 99.3% is for managing the risk of spreading quarantine pests and economically important pests on plants and plant products. The remaining BGN 117,328 was used to manage the risk of damage caused by diseases, pests and abiotic factors in forest areas.

The activities and measures for managing this risk were funded with public funds from the state budget of the Republic of Bulgaria and with funds from the state-owned enterprises in the Forests sector.

In order to limit the spread of quarantine pests and economically important pests on plants and plant products, in 2021 the ASF administered 4 state aid schemes for the Crop Growing sector, namely:

- Aid to compensate farmers for the implementation of measures under the National Program of Measures for Control of Tomato Leafminer - *Tuta absoluta* Meyrick (Lepidoptera);
- Aid to compensate the costs of agricultural producers related to the implementation of measures under the National program of measures for control of soil pests on potatoes from the Wireworms Wireworms (Elateridae) Family;
- Aid for compensating the costs of farmers related to implementation of measures under the National Program for Pest Control in Perennials during the winter period;
- Aid for certification of holdings in the fruit and vegetables sector under the GLOBAL G.A.P. standard.

The management of the risks of quarantine pests in plants during transboundary transit when importing consignments is carried out through the implementation of monitoring programs for the inspection of plant pests.

The preventive activities to limit the negative impact of the spread of diseases, pests and abiotic factors on forest territories, which are carried out by EFA and the state-owned enterprises, are expressed in:

- identifying the plantations and carrying out the necessary forestry and forest protection measures in their parts affected by biotic and abiotic damage;
- aerial spraying against leaf-gnawing insects;
- carrying out forest protection activities;
- carrying out sanitary and forced logging.

## **11.2. Natural and climatic risks**

In the context of the European policy to limit the negative consequences of climate change we witnessed in the last 15-20 years, the management of natural and climatic risks for agricultural production is of great importance. The strong dependence of agriculture and forestry on natural factors characterizes the environmental and climatic risks as "particularly significant", having a strong impact on agricultural production and the protection of biological diversity.

One of the most common reasons for the occurrence of disasters that can be detrimental to the agricultural production were natural and climatic phenomena - hail, floods, drought, etc. Based on the need to adapt to climate change, the prevention against natural risks includes a number of activities providing adequate measures to prevent and reduce the possible harmful impact to acceptable levels. These activities are aimed at building early warning systems for emerging flood hazards, fires, activating landslide areas, cleaning riverbeds, and building protective facilities.

In order to prevent natural and climatic phenomena, activities to limit their harmful impact on agriculture are financed annually through the state budget of the country. They are aimed at:

- hail suppression;
- flood prevention measures;
- limiting the harmful impact of prolonged drought on crops;
- limiting the harmful effects of forest fires.

The funds spent for the prevention of the harmful effects of natural and climatic factors in 2021 were in the amount of BGN 47,640,526 (compared to BGN 44,531,742 in 2019 and BGN 45,943,049 in 2020). The largest part of the financial resources was spent on hail suppression, and the smallest - on forest fire prevention.

## **11.3. Economic risks**

The economic risks were mainly related to the reduction of farmers' incomes, the competitiveness and limitation of the market positioning and supply of Bulgarian agricultural products. The overall result of all factors (production, market, nature and climate) influencing agricultural production was a decrease in the income of farmers and extensive development of agricultural production.

The dynamics of the market situation created prerequisites for instability and for limiting the possibility of realization of agricultural production, as a result of which fluctuations in the income of farmers were observed in some sectors. These fluctuations were more pronounced in the crop production, due to the strong dependence of production on environmental and climatic conditions.

The main tools used to manage economic risks were covered in direct payment schemes, state aid, the Rural Development Program 2014 - 2020, the National Support Program for the Viticulture Sector 2019 -2023 and the Maritime and Fisheries Program 2014 - 2020.

## **11.4. Measures to manage crises in agriculture**

### **11.4.1. Pandemic crises**

#### **Agriculture**

In the context of the coronavirus pandemic, on 19 March 2020 the European Commission adopted a Temporary Framework for State Aid Measures to support the economy (amended several times and valid until 30 June 2022).

In order to prevent further deterioration of the economy, employment and social cohesion and to promote a sustainable and stable recovery of economic activity, Council Regulation (EU) 2020/2094 was adopted in December 2020 establishing an Instrument of the European Union for Recovery to support recovery from the COVID-19 crisis.

In order to overcome the consequences of the extraordinary epidemic situation, in 2021 two schemes of state aid in the field of agriculture were implemented in Bulgaria, including:

- To provide liquidity to rose oil producer.

In 2021, 319 rose growers were supported under the scheme. The subsidy paid for repayment of loans is in the amount of BGN 920,057.

- To provide liquidity to farmers rearing large ruminants, small ruminants, bee colonies and fruit and vegetable producers.

The subsidy paid for repaying loans to farmers under the scheme is in the amount of BGN 71,785,960, and 27,485 farmers were supported.

### **Fishing**

Regarding the Fisheries sector, in 2020, Regulation (EU) 2020/560 of the European Parliament and of the Council of 23 April 2020 amending Regulations (EU) No. 508/2014 and (EU) No. 1379/2013 regarding special measures to mitigate the impact of the COVID-19 outbreak in the fisheries sector.

In connection with these amendments to the European legislation, two amendments to the MFP were carried out in 2020 (the first amendment was related to the emergency measures due to the COVID-19 crisis), as a result of which some of the measures were closed. Acceptance of project proposals is open under three procedures in connection with overcoming the consequences of the COVID-19 crisis.

The designated budget for measures to mitigate the impact and overcome the consequences of the COVID-19 pandemic in the Fisheries sector was in the amount of BGN 2,600,782, of which BGN 1,950,587 from EU funds and BGN 650,195 from the national budget.

### **Viticulture sector**

With regard to the viticulture sector, in order to restore the economic viability of farmers affected by the crisis, the following crisis measures were implemented in Bulgaria in 2021:

- "Green Harvesting" Measure;
- "Crisis storage of wine" measure.

#### **11.4.2. Sanitation crises and crises caused by adverse climatic and natural disasters**

In 2021, in the country, the following local sanitary crises and crisis situations caused by natural disasters in the Livestock and Crop sectors were declared.

- For the Livestock sector, local sanitary crises have been announced in several areas of the country, related to the diseases avian influenza, African swine fever and ruminant bluetongue, as well as crisis situations caused by natural disasters - adverse weather events;
- Crisis situations caused by unfavorable climatic conditions and natural disasters - freezing/frosting, flood/overwetting of agricultural land, hailstorms and drought - were declared for the Crop Sector in almost the entire territory of the country.

In order to overcome the negative impact of the crisis situations that have arisen, as well as to reduce property damage to farmers, the following measures were taken during the year:

- controlling outbreaks of acute infectious animal diseases;
- limiting the spread of contagious animal diseases;
- provision of financial means to farmers as state support through additionally provided funds from the state budget of the Republic of Bulgaria;
- state aid to compensate material damages for dead animals and destroyed beehives as a result of natural disasters;

- state aid to compensate for damage to crops caused by adverse climatic events that can be equated to natural disasters;
- de minimis aid, according to Regulation (EU) No. 1408/2013.

## VI. FORESTRY

### 1. Characteristics of Forest Areas

The total area of forests and forest territories in Bulgaria as of 31.12.2021 amounted to 4,270,269 ha, of which 3,921,390 ha were forested area (including dwarf pine).

The area of the forest territories were 3,949,526 ha, of which 2,886,755 ha (73.1%) were forest territories - state property, managed by the state enterprises under Art. 163 of the Forest Act, 172,537 ha (4.4%) state forests managed by the MoEW (including reserves and maintained reserves - 33,561 ha, Rila National Park - 53,480 ha, Pirin National Park- 40 332 ha and Central Balkan National Park - 45 164 ha), 11 271 ha (0.3%) the state forest territories provided for management of Training and Experimental Forestry Units, 437,923 ha (11.1%) forest territories - property of municipalities, 381,271 ha (9.6%) forest territories - property of individuals and 59,769 ha (1.5%) forest territories - property of legal entities, including 17,658 ha forest territories - property of religious communities).

The area of agricultural territories possessing the characteristics of a forest within the meaning of Art. 2 of the Forest Act (forests on agricultural territories) was 320,743 ha, including: 34,411 ha (10.7%) forests on agricultural territories - state property, 183,791 ha (57.3%) forests on agricultural territories - municipal property, 74,950 ha (23.4%) forests on agricultural territories - property of natural persons, 11,380 ha (3.6%) of forests on agricultural territories - property of legal entities (including 2,206 ha of forests on agricultural territories - property of religious communities) and 10,604 ha (3.3%) forests temporarily managed by the municipality. The remaining 1.7% are forests on agricultural land in Natura 2000.

The total area (forest and agricultural territory) is 726 ha less compared to 2020 (after corrections and elimination of a technical error made in previous years). The forested area in the forest territories decreased by 861 ha, to 3,602,565 ha. This is mainly due to the presence of areas between forest and agricultural territories.

The total forested area (including dwarf pine) increased by 1,502 ha - from 3,919,888 ha to 3,921,390 ha, which is mainly due to the arrangement of hitherto undeveloped territories occupied by forests, during the inventories carried out for the year.

The area of forest territories is 3,949,526 ha, 3,049 ha less than in 2020.

The area of forests on agricultural land increased by 2,323 ha to 320,743 ha.

The decrease in the area of the forest territories is largely due to the accumulation of the area of the Shumen Plateau NPD within the boundaries of territorial divisions Shumen SHU in the previous reports. In addition, when creating new inventories, part of the forests, reflected in previous devices as forest territories, are specified and referred to agricultural territories, due to unfinished administrative proceedings and lack of grounds for their inclusion in forest territories.

The area of state forest territories increased by 1,561 ha, which is mainly due to the inventory of newly reforested territories, as well as the purchase by state enterprises of forests owned by individuals. The area of the educational and experimental farms is unchanged. The area of the municipal forest territories shrank by 3,901 ha at the expense of the forests on agricultural territories - municipal property. The area of the state forests managed by the MoEW increased by 169 ha.

The non-timber-producing area increased by 470 ha, reaching 306,800 ha. The unforested forest area decreased by 2,698 ha - from 44,777 ha to 42,079 ha, as a result of new afforestation in 2021.

Despite the emergence of self-afforested areas, the afforested area of coniferous forests was 3,361 ha less than the previous year. This was due to the fellings made in connection with biotic attacks of bark beetles and mass drying of pine crops outside the area, which were subsequently reforested with native deciduous species, to the continuing increase in mixed coniferous-deciduous plantations obtained after the creation and

subsequent management of coniferous stands, as well as the policy pursued in recent years for the transformation of coniferous plantations and stands created outside their natural range. This trend will continue in the future.

Deciduous high-stemmed forests were 2,343 ha more, due to the conversion of shoot stands to high stem ones, afforestation of post-fire areas, windfalls, self-afforestation of unforested forest areas, reassessment of coniferous stands and low-productivity plantations and transformation of coniferous forests into deciduous.

The coppice forests for conversion increased by 4,518 ha after the addition to the forest territories of plantations, until now included in the category of the so-called "undeveloped forests" and the revaluation of coniferous stands mixed with deciduous shoots.

Low-stemmed forests decreased by 1,998 ha, due to the reassessment of some of the acacia and hornbeam plantations, in which other coppice and/or high-stem tree species predominated.

The general use of regeneration loggings and thinnings for the forest territories, carried out in 2021, amounted to 7,035,05 cubic meters of standing mass, which is equal to 84.6% of the foreseen under the forestry plan (forest development project) 8,317,390 cubic meters of standing wood.

Of these, 3,488,942 cubic meters were from regenerative felling. The implementation of the regenerative felling compared to the planned ones according to the forestry plan (4,774,909 cubic meters) was 73.1%.

3,546,111 cubic meters were harvested from thinnings, which was 100.1% of the one envisaged in the forestry plan (3,542,481 cubic meters).

The annual use in the forest territories - state property amounted to 5,494,227 cubic meters of standing mass, which was equal to 86.1% of the 6,379,749 cubic meters of standing mass envisaged in the forestry plan (forest management project).

The sold annual use of the forests, provided to training experimental forestry units, amounted to 46,757 cubic meters of standing mass (102% of the planned); from the municipal forest territories - in the amount of 656,813 cubic meters of standing mass (66.1% of the planned); and that of forests - property of individuals and legal entities - in the amount of 828,653 cubic meters of standing mass (92% of the planned).

The annual use of forests on agricultural territories is in the amount of 82,306 cubic meters of standing mass.

## **2. Changes of Forest Areas**

In 2021, the following changes took place in the forest territories of the country:

- 6 administrative orders for change of the purpose of land properties in forest territories pursuant to art. 14 of the Forest Act (repealed), with a total area of 12.21 ha, with a price for the change of BGN 475,520, were issued. Funds for compensatory afforestation in the amount of BGN 130,209.82 were allocated. One administrative order was issued to terminate administrative proceedings for a change of intended usage. There is one administrative order with extinguished rights due to unpaid debts in the statutory period;
- 31 administrative orders were issued for preliminary approval of a change in the intended usage of land properties in forest territories, with a total area of 396.79 ha, pursuant to Art. 75 (3) of the Forest Act; 5 administrative orders were issued under which administrative proceedings on the change of the intended use were terminated; and 2 administrative orders were issued with which administrative proceedings were denied;
- 34 administrative orders for the change of the intended usage of land properties in forest territories pursuant to art. 77 of the Forest Act, with a total area of 33.99 ha, with a price for the change of BGN 818,990.25, were issued. Funds for compensatory afforestation in the amount of BGN 73,187.24 were allocated. The intended usage of 69.43 ha of forest territories was changed free of charge, pursuant to Art. 73 (5) of the Forest Act, for the construction of 5 national sites and 9 municipal sites of primary importance, and 14 administrative orders were issued with which rights and obligations that had already



arisen were stated;

- 7 administrative orders were issued for acquisition of the right of ownership over 1.06 ha of forest territories - private state property, representing built-up and normatively determined adjacent area of buildings, structures, networks and facilities, by the order of § 123, para. 3 of the TFP to the Act amending and supplementing the Forest Act (revoked), with a total sale price of the land properties of BGN 25,104.00 and overheads in the amount of BGN 510.12. 2 administrative orders for refusal of acquisition of the right of ownership over the built-up and normatively determined adjacent area of buildings, constructions, networks and facilities by the order of § 123 (3) of the TFP to the Act amending and supplementing the Forest Act (revoked) were issued;
- 148 administrative orders for the change of the intended usage of land properties (with total area of 7,171.05 ha) from agricultural to forest territory pursuant to art. 81 of the Forest Act were issued. The change is free of charge; 2 administrative orders were issued to amend and supplement already issued and enforced administrative orders to change the intended usage of land properties from agricultural to forest territory;
- 11 administrative orders were issued for returning land properties with changed intended usage to the forest territories (total area of 4.19 ha);
- 13 administrative orders were issued for preliminary approval for granting the right to build on state-owned forest territories, with a total area of 0.56 ha, pursuant to Art. 55 of the Forest Act;
- 9 administrative orders were issued for establishing the right to build, pursuant to art. 56 of the Forest Act, on state-owned forest territories, with an area of 0.42 ha, with a total price for the real right of BGN 40,756.70 and BGN 815.13 for overheads. The present value of the standing wood at the current age for the estimated plantations amounted to BGN 722.40. The allocated funds for compensatory afforestation were BGN 2,601.02;
- 22 administrative orders were issued for preliminary approval for establishing an easement on state-owned forest territories, with a total area of 4.93 ha, pursuant to Art. 62 of the Forest Act;
- 28 administrative orders were issued for establishing an easement under Art. 63 of the Forest Act on state-owned forest territories, with an area of 19.15 ha, with a total price for the real right of BGN 3,637,166.00 and BGN 72,813.06 for overheads. The present value of the standing wood at the current age for the estimated plantations amounted to BGN 87,252.48. The allocated funds for compensatory afforestation were BGN 191,193.65;
- 4 administrative orders were issued for establishing an easement on an energy site under Art. 64 of the Forest Act on state-owned forest territories, with an area of 21.42 ha, with a total price for the real right of BGN 1,520,164.00 and BGN 30,403.28 for overheads. The present value of the standing wood at the current age for the estimated plantations amounted to BGN 115,241.83. The allocated funds for compensatory afforestation were BGN 234,207.53;
- 10 administrative orders were issued for establishing the right of use pursuant to art. 70 of the Forest Act on state-owned forest territories, with an area of 1.71 ha, with a total price for the real rights of BGN 2,693.88 and BGN 53.88 for overheads. The present value of the standing wood at the current age for the estimated plantations amounted to BGN 4,947.48. The allocated funds for compensatory afforestation were BGN 21,880.60;
- 3 administrative orders were issued, pursuant to the Administrative Procedure Code, for the termination of the administrative proceedings for establishing limited real rights on state-owned forest territories.

### **3. Management of Forest Areas**

The management, use and protection of forests is aimed at the formation and maintenance of living and multifunctional forest ecosystems, creating conditions for their natural regeneration and improving their sustainability.

### 3.1. Afforestation and Protection against Erosion and Torrential Rains

In 2021, EFA's activities in this area were focused mainly on the following areas:

- Implementation of the goals and indicators set in the EFA program and budget;
- Fulfillment of Bulgaria's obligations arising from the membership in the European Union in the field of forest reproductive materials (FRM);
- Approval and registration of basic sources for FRM, registration of FRM suppliers, testing and qualification of seeds and improving the condition of the forest seed production base;
- Maintaining a database of the performed inventories of the created forest crops; of fires, unrenewed fellings and forests destroyed by other natural impacts; of large-scale fortifications; the compensatory afforestation activities and register of forest nurseries in the country;
- Performing control activities;
- Coordination of projects for biological reclamation in forest areas, preparation of answers and opinions;
- Preparation of drafts of normative documents.

**Table VI.1. Implemented activities for creation of forests in 2021**

No.	Types of activities	Measure	Implementation for 2021
1.	Collected and harvested seeds by TD SF/SH	kg	42,155
2.	Produced saplings in state forest nurseries	thousand	7,307.5
3.	Afforested areas, including	ha	1,793.4
	- State-owned enterprises	ha	1,645.6
	- municipalities	ha	147.8
4.	Developing stands in state forest territories	ha	625.4
5.	Growing stands in state forest territories	ha	9,432.9
6.	Average percentage of survival of planted trees		
	a) state-owned property		
	- annual	%	62.38
	- biennials	%	69.34
	- triennials	%	74.97
	b) municipal-owned property		
	- annual	%	75.37
	- biennials	%	83.99
	- triennials	%	69.16

Source: EFA

The following activities were performed in 2021:

- An anniversary brochure "Forest Seed Control Stations - 70 Years of Development" was published;
- Reports with a database regarding the conducted inventories of the created forest stands; of existing post-fire areas, unrestored clearings and forests destroyed by other natural impacts; the available large-

scale strengthenings were prepared and recommendations to eliminate the omissions and errors were given;

- The price of the compensatory afforestation was determined and orders were issued by the Minister of Agriculture and the Executive Director of the EFA;
- 21 projects for reclamation of disturbed terrains in forest territories were approved;
- The public register of forest nurseries in the country was updated;
- The National list of approved and registered sources for production of FRM was updated;
- Approved and registered 27 new basic sources in category "selected" for the production of FRM, meeting the minimum requirements of Directive 1999/105/EU were approved and registered and 18 basic sources were revoked;
- 483 control checks of the condition and the conducted activities in the registered basic sources for FRM were performed by FSCS experts were made;
- 156 certificates for identification of the FRM origin were issued by RDFs and FSCS;
- In the seed control laboratories of the FSC stations in Sofia and Plovdiv 215 seed control certificates were issued for batches of seeds of deciduous and coniferous species;
- 1,040.13 kg of seeds from 231 batches of coniferous and 10 batches of deciduous species were stored in the long-term seed storage facility in Plovdiv FSCS;
- Sofia FSCS kept 236.47 kg of seeds of different origins from 44 tree and shrub species as a seed collection for its bank. 18.5 kg of 7 tree species were stored in Plovdiv FSCS;
- Specialists from Plovdiv FSCS conducted soil surveys of 10 forest nurseries throughout the country, and prepared dossiers with precepts for improving soil fertility in the surveyed nurseries;
- Specialists from Plovdiv FSCS have helped the construction of a vegetative seed production garden made of black pine on the territory of Panagyurishte SHU. In 2021, grafting was carried out on an area of 1.3 ha with scions of 42 different types on 360 rootstocks, additionally the area was expanded by another 0.7 ha, and 252 rootstocks of black pine were reforested, on which scions will be grafted in 2022;
- A joint project of Sofia FSCS and South-Western State Forestry Enterprise Blagoevgrad Life 16 NAT/BG/000817 "Restoration and improvement of the conservation status of priority forest habitats from the NATURA 2000 network in Bulgaria" was completed.

634.1 ha of anti-erosion afforestation was carried out to protect the forest territories from erosion and torrential rains.

BGN 17.1 million was spent on afforestation measures in state forest territories.

### **3.2. Logging in Forests**

In 2021, thinnings were carried out on an area of 42,189.2 ha in state forests, which represents 66.4% of the FEP/FMP projections, to regulate the tree composition and to improve the growing conditions. Of the performed thinnings, 50.3% were in coniferous forests, 30.5% in deciduous high stem forests and 19.2% in coppice forests for conversion to seed. The execution of thinnings without material extraction on an area of 2,567.3 ha was 53.9% of the FEP/FMP projections. By types of thinnings, the implementation of FEP/FMP was 52.3% for clearing, 42.4% for pruning, 57.5% for spacing and 76.6% for selective cutting.

During the year, selective felling was carried out on an area of 944.9 ha, thus fulfilling the FEP/FMP projections at 79.8%.

Two control inspections of the marking and selection fellings in seed production plantations on a total area of 1,504.5 ha were carried out by FSCS experts.

Within the framework of 2021, thinnings were carried out in non-state-owned forests on an area of 9,570.1 ha, of which: 5,674.3 ha in municipal forests, 3,425.7 ha in forests - owned by individuals, 333.1 ha in forests - property of legal entities and 137 ha in forests - property of religious organizations.

Pruning of standing trees was carried out in state forests to improve the quality of the wood produced and to support the process of natural self-pruning of the stands on 1,209.5 ha, by 29.5 ha more than the FEP/FMP projections. The natural regeneration on an area of 5,668.3 ha (89.7% of the foreseen of the forest management plans) was supported, with 1,205.2 ha less than the implementation in the previous year. A logging fund in the amount of 5,128,498 cubic meters of standing wood or 94,003 cubic meters less than in 2020 was marked.

#### 4. Use of Wood and Non-wood Forest Products

##### 4.1. Use of Wood

In 2021, the EFA and the Regional Forest Directorates carried out constant control of the issued felling permits and the drawn up protocols for certification of felling sites through the EFA information system. During the year, felling permits were issued for 8,052,631 cubic meters of lying wood, and as of 24.02.2022, protocols were drawn up to certify the felling areas for 5,959,366 cubic meters of lying wood.

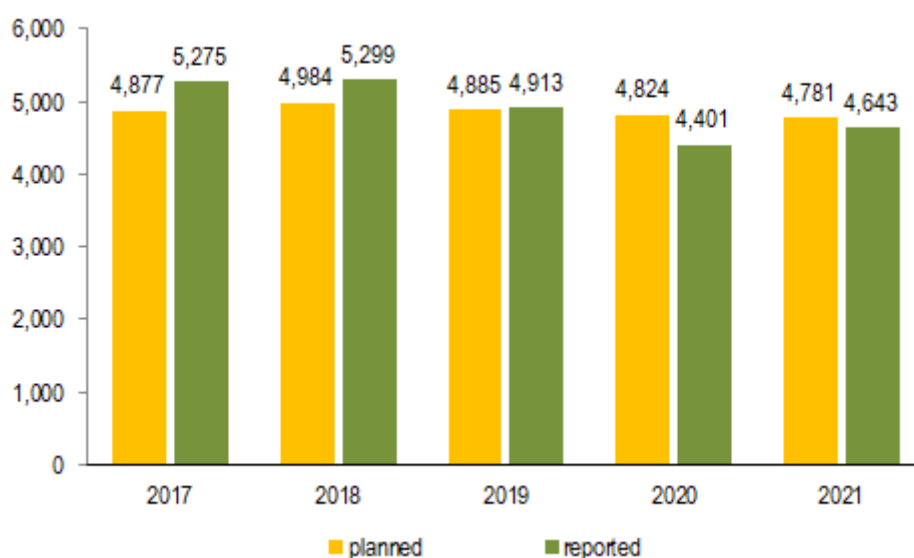
In 2021, the state enterprises under Art. 163 of the Forest Act have sold a total of 4,642,628 cubic meters of wood from forest areas - state property or 97% of the planned amount. The sold wood was 241 thousand cubic meters (10%) more than in 2020 (figure VI.1).

The sold wood, affected by abiotic and biotic factors, amounted to 441 thousand cubic meters, or 10% of all sales, maintaining the share reported in the previous year.

The total revenues from the sale of wood in 2021 amounted to BGN 267,803 thousand, 6% more on an annual basis. The total costs for the use of wood amounted to BGN 79,029 thousand, 3% below the reported in 2020, and they included deductions from the selling price of wood to the fund "Investments in Forests" in the amount of BGN 20,760 thousand.

In 2021, 48.7% of the total quantities of wood were sold through warehouse wood. The remaining 51.3% was sold through the sale of standing wood to individuals for personal use and to legal entities after tendering. In order to meet the needs of individuals, a total of 506 thousand cubic meters of wood mainly firewood, were sold according to a price list, which was 32 thousand cubic meters or 6% less than in 2020.

**Figure VI.1. Planned and reported wood sold from the forest territories - state property for the period 2017 - 2021, thousand cubic meters**



Source: MA

The volume of wood provided in 2021 under long-term contracts concluded by state enterprises was 328 thousand cubic meters of standing wood and 138 thousand cubic meters of harvested wood, and the total amount was 10% of sold wood, which was an increase of 11% compared to the previous year.

After electronic tendering, sales for a total of 950 thousand cubic meters of wood from state forests were realized during the year, with 199 thousand cubic meters more than in 2020.

The weighted average reported selling prices of wood from the forest territories - state property, from warehouses and as standing wood, were respectively 79.62 BGN/cubic meter and 43.42 BGN/cubic meter, increasing by 6.5% (4.88 BGN/cubic meter) and by 3.3% (1.40 BGN/cub.m.) Average costs for wood extraction increased slightly - by 0.16 BGN/cube. m.

According to the financial plans of the state-owned enterprise for 2022, the total use of wood is expected to be 4,669,455 cubic meters.

**Table VI.2. Use of wood from forest areas provided for management by the State Enterprise and sales revenues in 2021**

Method of use and sale	2020		2021			
	Quantity (cubic meters)	Value (BGN thousand)	Quantity		Value	
			cubic meters	Change versus 2020 (%)	thousan d BGN	Change versus 2020 (%)
<b>I. Income from the sale of wood (1+2+3+4):</b>	<b>4,401,488</b>	<b>251,815</b>	<b>4,642,628</b>	<b>5%</b>	<b>267,803</b>	<b>6%</b>
1. Sale of standing wood	2,259,804	94,984	2,705,656	20%	117,481	24%
1.1. including. according to a price list to individuals for personal use	208,870	3,250	192,848	-8%	3,053	-6%
2. Sale of harvested wood	2,066,359	154,440	1,865,425	-10%	148,529	-4%
2.1. including. according to a price list to individuals for personal use	328,193	23,511	312,654	-5%	22,584	-4%
3. Use of wood under Art. 116b of the FA	5,398	x	4,815	-11%	x	x
4. Use of wood under Art. 193 of the FA	69,927	1,941	66,731	-5%	1,863	-4%
<b>II. Total costs, quantity (I.1.+ II.1.), value II.(1+2+3):</b>	<b>4,389,013</b>	<b>81,670</b>	<b>4,580,091</b>	<b>4%</b>	<b>79,174</b>	<b>-3%</b>
1. Costs for wood harvesting - total:	2,129,209	53,514	1,874,435	-12%	47,426	-11%
2. Costs for construction of roads and current repairs of forest roads	x	6,420	x	x	10,988	71%
3. Deductions for the Forest Investment Fund	x	21,736	x	x	20,760	-4%

Source: MA

## 4.2. Auxiliary Activities and Use of Non-Wood Forest Products

For 2021, state-owned enterprises report a total of BGN 15,144,000 in revenues from side activities and non-timber forest products and corresponding costs of BGN 9,740,000. Compared to 2020, there was an increase in revenues by 412 thousand BGN and a decrease in expenses by 626 thousand BGN.

## 5. Protection of Forest Territories

### 5.1. Protection of Forest Territories from Diseases, Pests and Other Damages

Measures on 37% of the forest areas with health problems established in 2020 were envisaged for 2021. The fulfillment of the forecast was 91%. It was also planned to carry out aerial application on a total area of

1,309.2 ha, including 880 ha against pine processionary moth, 429.2 ha against rusty pine leaf wasp.

Over the year, ground chemical treatment was carried out on a total area of 534.9 ha in forest nurseries and poplar crops, which was 84% more than planned. The measure was carried due to the occurrence of health problems caused by various biotic and abiotic factors in forest nurseries (28%) and in forest crops (72%).

The performance of the intended mechanical struggle is 90%. Of the reported 67.3 ha, 38% are against pine processionary in forest crops, 47% - against damage in poplar and conifer crops and 15% - in forest nurseries.

Sanitary and forced fellings were carried out on an area of 12,962.6 ha. The implementation is 68% more compared to the planned fellings for 2021. Of these, 78% are in coniferous forests and 22% in deciduous forests. The cuttings covered forest areas damaged by various factors - phytopathogenic fungi (48%), abiotic factors (45%), stem insects (5%) and fires (2%).

The costs for performing the activities for protection against diseases, pests and other damages in the forest territories, managed by the state enterprises under art. 163 of the Forest Act, amounted to BGN 117 thousand.

**Table VI.3. Conducted forest protection measures in 2021**

Measure	Forecast 2021 (ha)	Report 2021 (ha)	Implementation (%)
Air combat	1,309.2	890	68%
Biological warfare	6,448.8	6,448.8	100%
Ground chemical treatment, incl.	290.1	534.9	184%
<i>in forest nurseries</i>	100.5	152.3	151%
<i>in cultures</i>	189.6	382.6	201%
Mechanical treatment	74.4	67.3	90%
Integrated treatment	0	0	-
Sanitary felling	7,996.3	12,962.6	168%
<b>Total:</b>	<b>1 5818.8</b>	<b>1 4454.8</b>	<b>91%</b>

Source: EFA

## 5.2. Forest Fire Protection

In 2021, a total of 349 fires occurred in the forest territories of the country, affecting 3,143.4 ha. Of these, 413.7 ha were burned by peak fires.

The largest forest fire of the year occurred in the area of Yugovo, in the region of the territorial division of Kormisosh SHU, which, due to the terrain with difficult access and bad atmospheric conditions, also developed in the territorial division of Asenovgrad SF. More than 466 ha of forest areas were affected.

In 2021, large forest fires also occurred in the regions of the state forest units of Kyustendil, Hisar, Madzharovo, Svilengrad, Breznik, Zemen, Sliven, etc.

The areas affected by peak fires during the year were 77.7 ha more than in 2020.

The main reasons for the occurrence of forest fires in 2021 were meteorological conditions, human negligence in the fire season combined with long periods of low atmospheric humidity, no rainfall, and high average daily temperatures. These atmospheric conditions lead to numerous lightning strikes, which naturally caused about 8% of forest fires.

In 2021, contracts were signed for the construction of 13 facilities (towers) for the early detection and notification of fires in the forest territories, by the RDFs. Berkovitsa, Blagoevgrad, Burgas and Sliven, funded under submeasure 8.3 from the Rural Development Program for the period 2014-2020. The construction of the

facilities was in accordance with the scheme approved in 2019 by the EFA for deployment of facilities for monitoring and detection of fires in the forest areas of the country.

In 2021, the State Enterprises spent funds in the amount of BGN 998 thousand for the implementation of the activities for protection of the forest territories from fires. The main part of the reported costs were for the implementation of preventive activities, including the construction and maintenance of 2,225,609 meters of mineralized strips and 651,858 meters of forest barriers.

## **6. Protected Areas**

According to the Protected Areas Act (PAA), there are 6 categories of protected areas in the country, such as the national parks specified in Annex No. 1 of the PAA, the reserves and maintained reserves specified in Annex No. 2 of the PAA are exclusive state property, and their management and management is carried out by the Ministry of Environment and Water (MoEW) and its respective regional subdivisions, including the national parks directorates (Central Balkan NPD, Rila DNP and Pirin DNP) and regional environmental and water inspections.

The Ministry of Agriculture, the Forestry Executive Agency, as well as natural and legal persons and municipalities - owners of forests, lands and water areas in the protected territories of the categories "nature park", "natural landmark", and "protected area" carry out their management, preservation, and protection, as per the provisions of the Environmental Protection Act and other special laws.

According to the EPA, the Forestry Executive Agency created specialized nature parks directorates for the implementation of management plans for nature parks. In this regard, 11 directorates have been established for the management of the nature parks - specialized territorial units at EFA: Belasitsa Nature Park, Bulgarka Nature Park, Vitosha Nature Park, Vrachanski Nature National Park, Golden Sands Nature Park, Persina Nature Park, Sinite Kamani Nature Park, Strandzha Nature Park, Rusenski Lom Nature Park Rila Monastery and Shumen Plateau Nature Park.

The MoEW and its regional bodies conduct and carry out control in the protected areas in relation to the activities of the owners or users of forests, lands and water areas and in compliance with the regimes established under the order of the Environmental Protection Act, the declaration order and the management plan of the respective protected area.

The control on the compliance with the regimes in the protected areas is also carried out by the directors of the regional forest administrations, state forestry farms, state hunting farms, and directorates of nature parks, as well as the mayors of municipalities.

The activities for the management of forest territories in protected areas and natural landmarks were carried out by the state forestry and hunting farms, depending on their territorial scope.

In 2021, the directorates of nature parks and state-owned enterprises carried out joint activities on the basis of concluded cooperation agreements and plans for joint activities. Such agreements have been concluded between Blagoevgrad SWSE and Belasitsa NPD, Vitosha NP and Rila Monastery NPD. The purpose of joint action agreements is to resolve issues of mutual interest in the following areas: sustainable management and protection of natural resources, protection of ecosystems and biodiversity, environmentally friendly land management in protected areas and protected areas under the BDA, staff training, preparation, application and implementation of projects related to forests and protected areas.

Repair and restoration activities were carried out on the existing tourist infrastructure - bridges, interpretive routes, shelters, gazebos, recreation areas, fountains, etc. Information boards, marking of tourist routes, etc. have been updated and restored. All directorates of the nature parks actively worked with volunteers, with whose help a number of measures were implemented to restore and maintain the tourist infrastructure, clean the park areas, renew the tourist markings, reforestation measures, etc.

On the territory of the Rusenski Lom NPD, cleaning of tourist routes was carried out with the help of volunteers, together with the Polomie - Ruse association. A 10 km route from the Smesite area to the large Nisovo Monastery was also cleared using heavy equipment and voluntary labor. The reintroduction of

endangered and rare species continued and maintaining their populations. Birds are regularly fed on the constructed sites.

During the year, a number of activities related to the cleaning and renovation of the tourist infrastructure were carried out on the territory of the Vitosha National Park, such as the repair of 2 viewing platforms above the Dragalevski Monastery and above the Kladnisha River; wooden forest libraries, a wooden stage and a wooden railing in front of the Belite Brezi children's ecostation. 2 information boards were prepared and installed, as well as 20 metal directional signs for a low mountain circular path and 27 signs in braille and letterpress to display trees and shrubs on the Alley for the Blind in the Dendrium area. A total of 53 volunteer actions were organized during the year, with more than 250 participants. With the help of volunteers, illegal fires were cleaned and removed, park infrastructure was refreshed (over 150 bridges, grills, wooden railings); more than 4,000 meters of ditches/gutters along tourist paths were cleared; 5 new wooden bridges were built, the stone bridge at the Mominska Skala hut was repaired. 2 fountains were restored. 8 information boards were made and installed as well as 6 new tables and benches. More than 150 items of the park infrastructure on the territory of the park were repaired/varnished.

For its overall activity in favor of Vitosha, in 2021 the Directorate of Vitosha National Park was awarded a "golden badge" by the Bulgarian Olympic Committee.

The employees of the Sinite Kamani NPD carried out repair work on elements of the infrastructure on the territory of the nature park. Directional and warning signs have been placed at some of the places most visited by tourists.

In 2021, Vrachanski Balkan NPD carried out a complete repair of aviaries for semi-free breeding of birds and fence. 52 birds were relocated (autumn), and a spring survey of the population status (transect method), an autumn survey (telemetry), and a winter survey (phototaps and feeders) were carried out. Currently, there are 80 birds in the parks for the main flock in 2022. A methodology and technology for the production and resettlement of birds was developed. The park also continued its activity for feeding and reintroducing the Egyptian and the griffon vulture. During the year, a total of 18 pairs were formed and 16 griffon vultures were bred. Monitoring under a project for reintroduction of a European ground squirrel for 2021 was also carried out.

In 2021, 9 interpretive routes were repaired on the territory of Vrachanski Balkan NPD, the markings on 12 tourist routes were renewed, 1 shelter, 3 information points, and 3 recreation areas were also repaired.

On the territory of the Golden Sands NP, rehabilitation of the tourist infrastructure was carried out, including the replacement of 12 signposts and 3 information boards along the Nature for All and The Jay's Home routes, 3 fence panels of a decorative wooden fence were repaired as well as 6 wooden railings leading to a bridge in the Jubilee area. The tourist markings along the Blue Route and Yellow Route, with a total length of 12 km, were renewed.

In the reproduction base for rare and endangered plant species of the Bulgarka NPD in Potok and in the gene bank for orchard species, activities of maintaining the material base, collecting seeds, preparing the grounds, planting activities, care during of vegetation, pruning and pest control for fruit species, were carried out all year around. In the adaptation aviaries for day and night birds of prey, species are periodically housed and bred for adaptation before being released into the wild. Together with Gabrovo NCSE, stocking with Balkan trout was carried out for another year in 7 river basins (Levicharka, Panicharka, Borushtitsa, Sivek, Byala Reka, Belilska, and Yantra).

Bulgarka NPD hosted the sports event - the marathon adventure Tryavna Ultra. The traditional *Patilantsi march* in the mountains was held on the occasion of 1<sup>st</sup> June (the Children's Day), as well as part of the second edition of the Tryavna festival *Outdoor Fun*, held in an urban environment.

Rila Monastery NPD has supported the organization and opening of an exhibition with drawings by children from 60 countries in Rila Monastery. The event is the final part of the Eighth World Children's Drawing Competition organized by the *Malak Zograf* Foundation.

*Strandzha* NPD implemented activities to support the natural regeneration of local species, as well as the reintroduction of flora and fauna species (trout, relic plant species from the Specialized Nursery). Measures



were taken to limit the spread of invasive species by mechanical removal. The Park Directorate also conducted a regular survey of the most sensitive and damaged coastal dune habitats and riparian wetlands.

Rusenski Lom NPD carried out regular bird monitoring, which included checking known occupied nests of birds of prey. New territories occupied by birds of prey and scavengers were localized. A search was made for new nests of the lesser spotted eagle, Egyptian vulture, white-tailed hawk and booted eagle. The Park Directorate is also responsible for maintaining the optimal water level in the Kalimok-Brushlen Protected Area. A platform was built to attract nesting pelicans, in cooperation with the Bulgarian Society for the Protection of Birds, and three pairs formed nests and raised four chicks.

The employees of the Shumen Plateau NPD took an active part in the promotion and implementation of the largest volunteer afforestation in Shumen, which aims to restore 0.6 ha of burnt forest at the foot of the Shumen Plateau. In the traditional competition *Nature-My Inspiration*, which the park organized for more than 25 years, more than 300 works were prepared. The traditional *Green Suns* festival, dedicated to Enyovden (the Nativity of John the Baptist), was also held.

Golden Sands NPD organized and conducted environmental games, guided tours of children's educational routes "Song of the Forest" and "House of the Jay" and talks about herbs at the "Herbal Garden" school.

The directorate of Persina National Park organized the Dalmatian Pelican Festival in Belene. The purpose of the event is to increase the awareness to the need to protect the Dalmatian pelican species and to promote the return of pelicans as a nesting species in the territory of the nature park.

An exhibition with beautiful photos of plants, animals and habitats from the Bulgarian nature was presented in the visitor center of the Belasitsa Nature Park. The idea of the exhibition was to promote to the general public the importance of the European ecological network NATURA 2000 in Bulgaria as an important tool for preserving the most valuable natural corners in our country, as well as to attract public support for their long-term preservation. For another year, Belasitsa Nature Park hosted the Hobby Herbalism Course.

The Sinite Kamani NPD started the implementation of the project "Shared Vision for Natura 2000 of the Sinite Kamani Nature Park - 2020". The project was aimed at popularizing measures and activities for the conservation of the Myzian beech forests (habitat 91W0) and the Eastern hairy oak forests (habitat 91AA) on the territory of the District of Sliven.

Vitosha NPD, Vrachanski Balkan NPD, Golden Sands NPD and Rila Monastery NPD continued the implementation of activities under the projects under OP "Environment 2014-2020" related to improving the conservation status of species and types natural habitats on the territory of nature parks.

The Vrachanski Balkan NPD worked on the DiGiPARKS project - Creation of an innovative integrated tourist product between the Vrachanski Balkan and Zhelezni Vrata nature parks. The project was financed within the framework of the INTERREG V-A Romania-Bulgaria Programme.

Belasitsa NPD took part as a partner in the Know and You Will Love project financed by the Bulgarian Fund for Women, which aims to popularize the area. The basis of the project is the preservation of nature through popularization of traditional knowledge and development of alternative tourism. Belasitsa NPD was also a partner in a project developing a film with the working title *Culinary Delights of Podgorieto*, financed by the municipality of Petrich. The aim of the film was to promote the rich culinary culture of the villages located at the foot of the park and to "tell" about the harmonious relationship of people with nature, to promote the opportunities for tourism in the Belasitsa National Park by creating conditions for livelihood in the local population.

Persina NPD implemented and reported 4 projects as their implementation will continue in 2022.

All directorates of the nature parks have continued the monitoring of conservation significant species of plants and animals included in the National Biodiversity Monitoring System, as the necessary forms have been filled out and sent for entry into the Environment Executive Agency system.

In 2021, the EFA agreed the following proposals for the declaration, changes in the area or changes in the activity regimes of the protected areas:

- *Gorata na Boryana* Protected Area in the territory of Enina, Municipality of Kazanlak, District of Stara Zagora;
- *Sveta Nedelya* Protected Area in the territory of Nedelino, Municipality of Nedelino, and Startsevo, Municipality of Zlatograd, District of Smolyan;
- *Goren Bair - Kichuk Chal* Protected Area in the territory of Sinitovo, Municipality of Pazardzhik, District of Pazardzhik;
- *Chernite Skali* Natural Landmark in the territory of Oreshnik, Municipality of Topolovgrad, District of Haskovo;
- *Kamchiyski Pyasatsi* Protected Area in the territories of Novo Oryahovo and Shkorpilovtsi, Municipality of Dolni Chiflik, District of Varna;
- *Porechie Na Reka Botunya* Protected Area in the territories of Ohrid and Palilula, Municipality of Boychinovtsi, District of Montana, and on the territory of Dobrusha, Municipality of Krivodol, District of Vratsa;
- *Manastirska Stalba* Protected Area in the territories of Veliko Tarnovo, Municipality of Veliko Tarnovo, and Parvomaytsi, Municipality of Gorna Oryahovitsa, District of Veliko Tarnovo;
- *Coral* protected area on the territory of Lozenets, Municipality of Tsarevets, District of Burgas;
- *Kanyona na Reka Shegava* Protected Area in the territories of Razhdavitsa and Garbino, Municipality of Kyustendil, District of Kyustendil;
- *Fran Kaya i Diliki Kaya* Natural Landmark in the territories of the Markovo and Chelopech, and Cherveni Kamak Protected Area in the territory of the Chelopech, Municipality of Chelopech, District of Sofia;
- *Sladun* Protected Area in the territory of Sladun, Municipality of Svilengrad, District of Haskovo;
- *Patleina* Reserve in the Veliki Preslav, Municipality of Veliki Preslav, District of Shumen;
- *Skalen Kompleks - Nochevo* Protected Area in the territory of Nochevo, Municipality of Chernoochene, District of Kardzhali;
- *Bashovishki pech* Natural Landmark in the territory of Gara Oreshets, Municipality of Dimovo, District of Vidin;
- *Stepite* Protected Area in the territory of Balgarevo and Sveti Nikola, Municipality of Kavarna, District of Dobrich;

The EFA has not agreed to the proposal to declare the Vacha River - Uzunpara protected area, in the scope of the territory of Yoakim Gruevo, Municipality of Stamboliyski, District of Plovdiv.

## **7. Forest certification**

The certified forest areas in Bulgaria have a FSC (Forest Stewardship Council) certificate. According to the official data of the FSC, the area of certified forest territories as of 14.02.2022 is 2,339,182.4 ha, which represents 59% of the total forest territory in the country, and the certified units are 32. 443 certified units have a FSC - Chain of custody certificate.

The area of the certified state forest territories managed by the state-owned enterprises was 2,317,993.8 ha, equal to 80% of the total territory managed by them in the country, and the certified units were 29.

According to the electronic information portal of PEFC (Program for Endorsement of Forest Certification), 4 certified units have a PEFC - Chain of custody.

## **8. Inventory and planning in forest areas**

In 2021, the following major activities were carried out in this direction:

- Meetings of the commissions under Art. 34, para. 1 of Ordinance No. 18/07.10.2015 on inventory and planning in forest areas in connection with the inventory of forest areas and development of forest management plans, forest management maps, hunting management plans and plans for protection of forest areas from fires, in 2021/2022 for territorial divisions of State Forest Units (SFU): Montana, Chiprovtsi, Eleshnitsa, Buinovtsi, Preslav, Shumen, Novi Pazar, Razgrad, Teteven, Tran, Mihalkovo, Elin Pelin, Panagyurishte, Rozino, Kazanlak, Sliven and for territorial divisions of the following SHUs: Palamara, Danube-Ruse and Ropotamo;
- Expert advice was held on the acceptance of the economic classes and the amount of annual use for 2020/2021, for the territorial divisions of the following SF units: Ihtiman, Blagoevgrad, Tvarditsa, Dobrinishte, Rila Monastery, Smolyan, Elhovo, Smyadovo, Silistra, Verbitsa, and Sredets, as well as for territorial divisions of the SHUs: Sherba, Mazalat, Trakia and Cherni Lom;
- Meetings of the commissions under Art. 37 (3) of Ordinance No. 18/07.10.2015 on the inventory and planning in forest areas for acceptance of the implemented inventory of forest areas and the developed forest management plans, forest management maps, hunting management plans, and plans for protection of the forest areas from fires in 2020/2021 for territorial divisions of the following state forest units (SFUs): Ihtiman, Blagoevgrad, Tvarditsa, Dobrinishte, Rila Monastery, Smolyan, Elhovo, Smyadovo, Silistra, Varbitsa, Sredets, Acad. Nikolay Haytov (the part of the closed territorial division of Chepelare) and for the territorial divisions of the following SHUs: Sherba, Mazalat, Trakia, and Cherni Lom;
- Expert councils were held for acceptance of the minutes of the commissions under Art. 37 (3) of Ordinance No. 18/07.10.2015 for inventory and planning in forest areas, for acceptance of the carried out inventory of forest areas and prepared forest management plans, forest management maps, hunting management plans and plans for activities to protect forest areas from fires in 2020/2021 for territorial divisions of the following SFUs: Ihtiman, Blagoevgrad, Tvarditsa, Dobrinishte, Smolyan, Smyadovo, Varbitsa, Sredets, and for territorial divisions of the following SHUs: Sherba and Trakia;
- Expert councils were held for acceptance of the assignments in respect to the future inventory of the forest territories in 2022/2023 and preparing forest management plans, forest management maps, hunting management plans and plans for activities to protect forest areas from fires for the territorial divisions of SFUs: Razlog, Pazardzhik, Batak, Vidin, Seslav - Kubrat, Targovishte, Omurtag, Byala, Bolyarka, Karnobat, Cherni Osam, Stara reka, Ivaylovgrad, Nevestino, and for territorial divisions of the following SHUs: Chehlivo, Aramliets, Rositsa, Vitinya, Izvora, Voden - Iri Hisar, Zhenda, Topolovgrad;
- A report was approved by the Minister of Agriculture on the sites for inventory in 2023/2024 and the creation of forest management maps, forest management plans, plans for hunting activities and for the activities to protect forests from fires, for territorial divisions of the SFUs: Yakoruda, Belitsa, Karlovo, Ardino, Haskovo, Karnobat (only for the part of the merged territorial division of SFU Sadovo), Burgas, Kotel, Vratsa, Lesidren, Lovech, Botevgrad, Samokov (without the merged territorial division Borovets SFU), Elena, Tutrakan, Provadia, Tundja, Kipilovo and for the territorial division of Iskar SHU and the hunting district of Trankovo to territorial division Mazalat SHU;
- By order of the Minister of Agriculture, the District Plan for the Development of Forest Territories in the District of Montana was approved;
- A digital orthophoto map was provided to the companies performing the inventory of forest territories and producing forest management plans, forest management maps, hunting management plans and plans of activities for protection of forest areas from fires for the period 2021/2022;
- A digital model of the map of the restored property and the cadastral map for the territorial scope of activity of the state forestry and hunting units, subject to inventory and forestry planning in 2021/2022, was provided;
- A report on the balance of the forest territories of the Republic of Bulgaria as of 31.12.2021 was prepared and submitted to the NSI;

- A geographic portal for data on forests in Bulgaria has been created -<https://maps.iag.bg>.

## 9. Hunting Units

In 2021, the following important activities, related to the management and use of game in the country, were carried out with the participation of EFA:

- Expert councils were held for consideration and adoption of the "Methodology for monitoring the stock of wild boar and big game in the Republic of Bulgaria" and "Methodology for rearing and resettling fallow deer and farm pheasants, semi-wild mallards and partridges in the Republic of Bulgaria";
- Participation was taken in an expert council for consideration of the "Concept for the development of the hunting industry in the Republic of Bulgaria";
- Participation was taken in meetings of interdepartmental working groups together with the Ministry of Environment and Water and NGOs regarding the implementation of the Bear Management Plan in the country;
- Meetings were held jointly with the Ministry of Environment and Water, organized by the European Commission, in connection with the preparation of an adaptive mechanism for sustainable use of the dove;
- An amendment to Ordinance No. 2/2009 on the conditions for growing furred and feathered game in livestock holdings, in accordance with its physiological and behavioral characteristics, was developed;
- Participation was taken in meetings of interdepartmental working groups together with the Ministry of Environment and Water and NGOs regarding the amendment and addition of the Action Plan for the protection of the Balkan wild goat;
- An amendment and supplement to Ordinance No. 6 of 2007 on the conditions and procedures for pasture breeding of pigs of the Eastern Balkan breed and its crossbreeds has been developed;
- Joint trainings were conducted for hunters, from RDFs and BFSA, regarding limiting the spread of African swine fever, compliance with biosecurity measures and conducting searches for carcasses of dead wild boars;
- 4 meetings of the Hunting Council were organized;
- Checks on the implementation of the contracts, providing the management and use of the game to the hunting associations, were carried out;
- Analyses and reports to the Minister of Agriculture on the results of inspections on the implementation of contracts for joint hunting activities in 19 SHUs and for the management and use of game in 9 game breeding sections to the SFUs, were prepared;
- 8 permits for research activity were issued;
- Tests for acquiring the right to hunt in hunting associations and tests for acquiring the right to selectively hunt in hunting associations were held;
- 46 hunting bases in SHU and SFU were categorized;
- 23 permits for the use of bird caller whistle have been issued;
- 6 permits for shooting a brown bear, 2 permits for catching and moving brown bears, and 1 permit for capture and marking with a collar equipped with a radio transmitter and a device for global geographical positioning of a brown bear were issued;
- Thematic and specialized inspections on the implementation of hunting activities and the implementation of contracts in hunting associations were carried out;
- Field inspections and expert councils for admission of Hunting Development Projects were carried out.

The hunting activities carried out by the state-owned enterprises under Art. 163 of the Forests Act in the state-owned forest territories granted to them for management, had the following guidelines: creation and maintenance of feed base; game feeding; construction and maintenance of biotechnical facilities - feeders, traps, mud pits, construction and repair of bases for intensive game farming.

The total revenues from hunting activity in the forest territories - state property, reported during the year, amounted to BGN 7,850 thousand, which is by BGN 565 million more compared to 2020. The revenues from organized hunting and other types of tourism amounted to BGN 4,049 thousand, BGN 946 million above the level of the previous year. Revenues from contracts concluded under HGPA in the form of annual installments for game management in game breeding areas and annual rental prices of hunting tourism facilities of SHU amounted to BGN 3.186 million, a decrease of BGN 213 thousand compared to 2020. BGN 14,002 thousand were spent for implementation of the planned hunting and fishing activities during the year, BGN 965 thousand more on an annual basis.

## **10. Protection of Forest Territories and Control**

In 2021, the employees of RDF and SE under Art. 163 of the Forest Act performed a total of 510,854 inspections, including: 98,064 of timber production sites, 23,414 of sites under Art. 206 of the Forest Act, 151,592 of vehicles, 140,853 of hunters, 13,399 of fishermen, and 83,532 of other persons.

Based on an analysis of the activity of the RDF, instructions were given aimed at improving the planning of the activity and ensuring periodic internal control of the activity of the inspectors.

Improvements have been made to the information system of EFA, and a mechanism has been developed to automatically carry out control and send the information to the RDF for taking the respective actions. An algorithm was also developed to control the transported quantities of wood according to previous transport tickets. When the quantity of one ticket is exhausted, it is suspended and cannot automatically be used as a basis for issuing subsequent transport tickets. Another similar algorithm was introduced to control the manually entered data used as a basis for issuing subsequent transport tickets. The application for issuing transport tickets was updated.

An algorithm has been introduced that tracks the subsequent transportation of wood received by destination (relocation) and the implementation of Art. 16 (7) of Ordinance 1 on the control and protection of forest territories.

The issuance of transport tickets according to certification protocols is limited after the quantities specified as available in temporary storage have been exhausted.

In order to facilitate citizens and ensure publicity, together with the NGO, the "Protect the Forest" application was developed and implemented, through which any user can report illegal actions (cutting and transport of wood, hunting, etc.) to EFA and to receive an answer about the result of the performed inspection.

The interaction with WWF Bulgaria and with the established center to the emergency telephone 112 continued.

A draft Ordinance has been developed to supplement and amend Ordinance No. 1 on the control and protection of forest territories.

In 2021, a total of 38 inspections were carried out by employees from other RDFs - in Berkovitsa, Blagoevgrad, Veliko Tarnovo, Kyustendil, Kardzhali, Lovech, Pazardzhik, Ruse, Sliven, Sofia, and Shumen. 89 sites for wood extraction were inspected, 13 sites under Art. 206 of the Forest Act, 2 motor vehicles, 62 natural persons. 66 statements of findings were drawn up, of which 23 with precepts for drawing up citations for the establishment of administrative violations (CEAV), and 28 CEAVs.

### **Established violations**

In 2021, a total of 16,824 violations of forest legislation were detected, 337 fewer than in 2020. 11,214 citations for administrative violations were drawn up, 286 more than in 2020. The perpetrators of 2,832 violations were not found, and for some of the established violations, in accordance with the terms of the Administrative Offenses and Penalties Act, CEAVs will be drawn up in 2022.

The most violations established with citations were registered in Kardzhali RDF - 1,038, followed by those in Berkovitsa RDF - 1,010, Sofia RDF and Ruse RDF with 1,002 each, Sliven RDF - 963, Burgas RDF and Lovech RDF with 919 each. The regional directorates with the least number of citations were Smolyan RDF - 103, Pazardzhik - 345, Blagoevgrad - 379, and Kyustendil - 399.

According to the ownership of the forest territories, 4,106 violations in state-owned property, 688 violations in municipal property, 2,519 violations in property of individuals and legal entities were established. The remaining 3,901 violations mainly concern the transport or storage of wood unaccompanied by a transport ticket and not marked with a forest mark, where its origin cannot be established. Violations related to the lack of a vehicle tracking device, violations of the requirements for permanent video surveillance in the sites under Art. 206 of the Forest Act, etc.

68 administrative and criminal files were created without official citations, which are a result of the decrees of the Prosecutor's Office.

11,009 citations were drawn up under the Forest Act, 161 citations under the Hunting and Game Preservation Act, 40 citations under the Fisheries and Aquaculture Act, and 4 citations each under the Medicinal Plants Act, the Tobacco and the Tobacco Products Act, the Biodiversity Act.

The employees of RDF drew up 94 citations for violations by employees of the territorial units of SFR/SHU, 347 citations to foresters practicing private forestry practices, and 54 citations to people involved in management and protection of municipality-owned forest areas.

In 2021, 99 coercive administrative measures were imposed pursuant to Art. 253 from the Forest Act, 29 less than 2020.

#### **Activity of the regional forestry directorates**

In 2021, the forest inspectors in the RDFs carried out 245,341 inspections, of which 29,174 in sites for timber extraction, 22,886 in sites under Art. 206 of the FA, 89,000 of motor vehicles, 38,302 of hunters, 11,980 of fishermen and 53,999 of individuals.

5,492 citations were drawn up.

#### **Activity of the teams at EFA**

In 2021, a total of 3,886 inspections were carried out, of which 381 at sites under Art. 206 of the Forest Act, 371 in timber extraction sites, 1,773 of motor vehicles, 864 of hunters, and 497 of natural persons.

185 citations and 205 precepts were drawn up to the RDFs for undertaking additional actions and preparing citations, and 309 discovery protocols were issued to unknown perpetrators.

Illegally cut wood and disposal actions with wood, without documents proving its legal origin, in the amount of 1,205 cubic meters, were found.

#### **Activity of the state-owned enterprise under Art. 163 of the Forest Act**

In 2021, a total of 246,410 inspections were carried out by employees of the state-owned enterprise and their divisions, of which 62,778 were carried out at logging sites, 55,610 of motor vehicles, 101,456 of hunters, 1,193 of fishermen, and 25,373 of natural persons.

4,814 CEAVs, 1,714 statements of findings to an unknown perpetrator, and 449 statements of findings without CEAVs were drawn up.

Illegally cut wood and disposal actions with wood, without documents proving its legal origin, in the amount of 11,932 cubic meters, were found.

#### **Implementation of Regulation 995/2010**

In 2021, EFA participated in three meetings of the FLEGT/EUTR Committee on issues related to the implementation of Regulation (EU) No. 995/2010.

For implementation of effective control, during the year the RDFs carried out 1,132 inspections, with 1,404 less than in 2020.

### **Interaction with other institutions**

In 2021, EFA continued its active cooperation with the institutions involved in the prevention and detection of illegal encroachments on forests and game.

As a result of the concluded agreements for cooperation and interaction and the annual plan of the Ministry of Interior for counteracting the violations related to forest, game and fish resources, in 2021 a total of 10,894 joint inspections were carried out, which is 6,042 less than in 2020. 556 sites under Art. 206 of the Forest Act, 267 sites for timber extraction, 1,547 vehicles, 6,027 hunters, 27 fishermen and 2,470 individuals were inspected.

61 statements of findings and 518 citations were drawn up, of which 515 under the Forest Act and 3 under the HGPA.

39 inspections with EAFA employees, 4 with employees of the Executive Agency "Labor Inspection", 57 with employees of the National Revenue Agency, 9 with employees of RIA, 43 with employees of the MoEW, 10 with representatives of NGOs and 56 with other institutions, were carried out.

## **11. Strategic Planning, Improvement of the Regulatory framework and International Activities**

The following regulatory documents were prepared in 2021:

- A draft of the Amendment Act of the Forest Act, providing for a reduction of the administrative burden in accordance with Decision No. 704 of 2018 of the Council of Ministers, which has been submitted for consideration in the National Assembly;
- Resolution of the Council of Ministers amending and supplementing the Regulations for the Implementation of the Hunting and Game Preservation Act (promulgated, SG, issue 68 of 17.08.2021);
- Draft Resolution of the Council of Ministers amending and supplementing the EFA's Bylaws, which had undergone public discussion;
- Bylaws of the Forest Protection Stations (promulgated SG, issue 85 of 2021);
- A draft for amending and supplementing Ordinance No. 1 of 2012 on the control and protection of forest territories;
- A draft of the Amendment Act of the Forest Act in connection with item IV.2 of the Agreement between the coalition partners for the joint management of the Republic of Bulgaria in the period 2021 - 2025, according to which EFA passed to the Council of Ministers.

### **Implementation of strategic activities and priorities in the forest sector through projects funded by the EU and other international donors**

In 2021, at the meetings of the Commission and the Standing Working Group to discuss project ideas and project proposals in EFA, a total of 6 project ideas were considered of which 2 were approved and 4 were not approved.

Three projects of the Berkovitsa, Blagoevgrad and Burgas RDFs related to the construction of automatic observation stations from the unified national system for monitoring, early detection and notification of forest fires have been successfully implemented as well as two projects of Forest Protection Stations in Sofia and Varna to improve the material base and increase the technical capacity, financed under sub-measure 8.3 of the RDP 2014 - 2020.

The implementation of projects of the state forest enterprises under the LIFE program of the EU was supported, including LIFE FORHAB, LIFE REFOREST, LIFE IASHAB.

The EFA participated in the joint development of the "Restoration of key climate ecosystems in implementation of the EU Biodiversity Strategy and the objectives of the European Green Deal" project as part of the National Plan for Restoration and Sustainability, with a forest budget of nearly 48 million BGN.

In 2021, the following projects are currently being implemented:

- "Measures for the protection of the Lesser Spotted Eagle and its habitats in Bulgaria" under the LIFE program of the European Union;
- "Provision of natural resources management services", with the acronym Re-Source under the INTERREG VB Transnational Cooperation Program "Balkans - Mediterranean" 2014 - 2020;

## **12. Financing and investments in forest areas**

### **12.1. Executive Forest Agency**

In 2021, the Executive Forest Agency reported revenues totaling BGN 10,552,924.

The costs of the EFA set for 2021 for the implementation of the Budget Program "Specialized Activities in Forest Territories" and the Budget Program "Planning, Protection from Encroachments, Fires and Forest Protection" amounted to BGN 29,674,300. The approved corrections for the incurred expenses as of 31.12.2021 according to a specified plan amount to BGN 30,632,614.

In 2021, investments (capital expenditures) in the amount of BGN 17,358 were made as follows:

- Acquisition of other equipment, machines and facilities - BGN 16,075;
- Acquisition of software products and licenses for software products - BGN 713;
- Acquisition of other intangible fixed assets – BGN 570.

### **12.2. State-owned forest enterprises**

The reported revenues from the overall activity of the state-owned enterprises for 2021 are BGN 320,002 thousand, and the total expenses - BGN 316,984 thousand. Compared to 2020, the revenues of enterprises decreased by BGN 16,851 thousand and the expenses - by BGN 15,030 thousand.

The total financial result of SEs from their operating activities in 2021 was positive in the amount of BGN 2,818 thousand before taxation, with an increase of BGN 1,621 thousand compared to 2020.

The investments made by the six SFEs in 2021 amounted to BGN 32,457 thousand, by 21% less than the previous year. Of these, BGN 23,493 thousand (72%) were implemented with funds from the Forest Investment Fund - BGN 7,146 thousand less than in 2020, for the implementation of the following activities:

- design of 118 km construction of new roads and overhaul of existing forest roads - BGN 509 thousand;
- construction and overhaul of 102.71 km of forest roads and transport technical infrastructure - BGN 13,864 thousand;
- design and construction of 1 technical and fortification facility - BGN 32 thousand;
- for afforestation activities - BGN 8,480 thousand;
- for the purchase of forest territories - BGN 988 thousand.

43 means of transport and 29 pieces of specialized equipment were purchased with funds from the economic activity and overhauls of buildings were carried out and technical facilities worth BGN 1,690 thousand.

In 2021, a procedure was launched for the purchase of land properties in forest territories owned by individuals, as state-owned enterprises purchased 373 properties, with a total area of 143.4 ha.

Pursuant to item 2 of Decision No. 574 of the Council of Ministers of 2022, in September 2022 the Ministry of Agriculture sent a proposal to the Ministry of Finance with specific guidelines for the transformation of the six state-owned enterprises under Art. 163 of the Forests Act and of the state-owned enterprise "Kabiuk", together with a plan for their restructuring and a timetable.



### 13. Administrative service

In 2021, 20 meetings of the Commission for consideration of applications for entry of individuals and traders in the public registers of EAG under Art. 235 and Art. 241 of the Forest Act, as a result of which certificates were registered and issued to 342 individuals for forestry practice. Certificates of 390 traders for carrying out activities in the forest territories have been registered and issued.

During the year 47 merchants were deregistered from the public register under Art. 241 (1) of the Forest Act, and 63 natural persons were deregistered under Art. 235 of the Forest Act. 11 natural persons were refused entry in the registers under Art. 235 of the Forest Act.

As of 31.12.2021, the total number of natural persons registered for forestry practice is 12,175, and of registered traders - 4,477.

37 tests were organized and conducted in accordance with Art. 236a of the Forest Act in connection with the registration of natural persons for the exercise of forestry practice, for which a total of 496 candidates appeared, of which 240 passed.

Numerous consultations were held with owners, private foresters and other interested persons by phone, e-mail, in the reception of the Ministry of Agriculture, and during the field inspections.

## VII. FISHERIES AND AQUACULTURE

### 1. Catch and production of fish and other aquatic organisms

#### Catch of fish and other aquatic organisms

According to data from the Executive Agency for Fisheries and Aquaculture (EAFA), in 2021 the total catch of fish and other aquatic organisms from commercial fishing in the country increased by 43.1% on an annual basis, up to 9,010.3 tons, of which 8,920.5 tons in the Black Sea, and 89.8 tons in the Danube River. Compared to 2020, the catch in Black Sea increased by 43.2%, and that in the Danube River by 29.8%.

**Table VII.1. Total catch of fish and other aquatic organisms in the country per water basins, tons**

	2018	2019	2020	2021	Change 2021/2020
<b>Catch in the Black Sea - total, including:</b>	<b>8,467.1</b>	<b>10,269.7</b>	<b>6,228.1</b>	<b>8,920.5</b>	<b>43.2%</b>
- saltwater species	4,007.1	5,513.3	3,418.7	5,873.7	71.8%
- diadromous fishes, Pontic shad	10.3	25.6	15.8	22.6	42.6%
- veined rapa whelk, mussels and shrimps	4,449.6	4,222.9	2,794.5	3,024.2	8.2%
<b>Catch in the Danube River - total, including:</b>	<b>53.52</b>	<b>60.75</b>	<b>69.21</b>	<b>89.8</b>	<b>29.8%</b>
- freshwater fish	49.1	57.4	67.2	86.2	28.4%
- diadromous fishes, Pontic shad	0.5	2.6	0.7	1.9	192.8%
- other aquatic organisms	4.0	0.7	1.4	1.7	20.7%
<b>Total catch of fish and other aquatic organisms</b>	<b>8,520.6</b>	<b>10,330.4</b>	<b>6,297.3</b>	<b>9,010.3</b>	<b>43.1%</b>

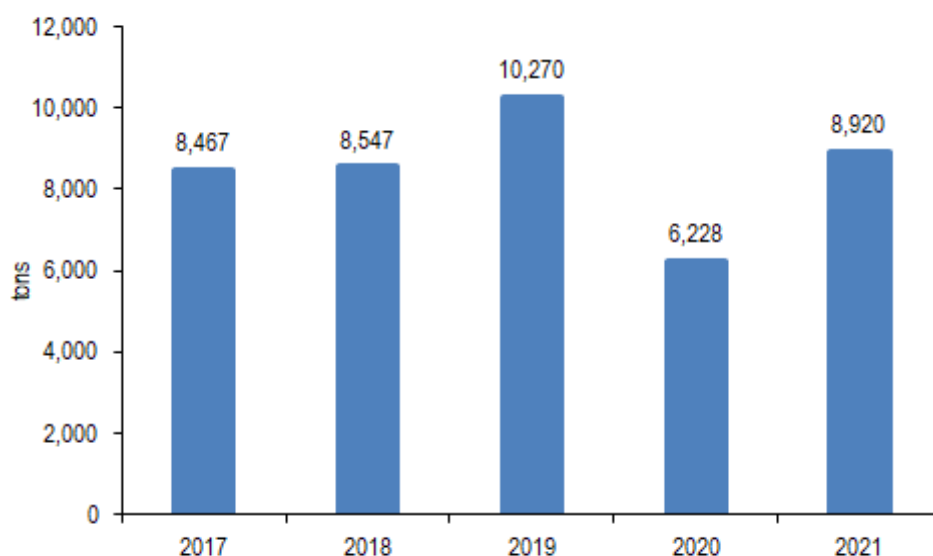
Source: EAFA

The total amount of marine fish species caught in 2021 was 5,873.7 tons, with 2,454.9 tons or 71.8% more compared to 2020. Traditionally, the most significant catch is sprat, which increased by 1,856.1 tons compared to the previous year, reaching 3,478.8 tons. Among the other Black Sea fish species, significant catches were reported for anchovies - 1,176.8 tons, Black Sea mullet - 445.4 tons, bluefish - 302.7 tons and horse mackerel - 274.1 tons. The catch of turbot is 70.4 tons, which is 94% of the quota set for the country, according to Council Regulation (EU) 2022/110 of 27 January 2022.

Catches of rapana, which account for the bulk of catches of aquatic organisms in the Black Sea, decreased by 21% on an annual basis. At the same time, the catch of Black sea clam increased two-fold, to 97.8 tons, and that of white sand clam - by 64%, to 758.1 tons.

In 2021, the catch of diadromous fish species (Pontic shad) in the Black Sea amounted to 22.6 tons, 42.6% more on an annual basis.

**Figure VII.1. Catch of fish and other aquatic organisms in the Black Sea, tons**



Source: EAFA

The total catch in the Danube in 2021 includes 86.2 tons were freshwater fish, 1.9 tons - diadromous fish species - shad and 1.7 tons - other aquatic organisms.

Compared to the previous year, there was an increase in catches of freshwater fish by 28.4%. The largest catch was reported for silver carp - 14.7 tons, carp - 11.9 tons, barbel - 7.7 tons, European catfish - 5.7 tons, and white pike - 6.6 tons.

The catch of passage fish (carrage) in the Danube river increased almost three times compared to 2020, and that of other aquatic organisms - by 20.7%.

**Table VII.2. Catch of fish and other aquatic organisms from commercial fishing bodies in 2021**

	Type of fish/aquatic species	Quantity (tons)
<b>A. The Danube River</b>		
1	Common roach ( <i>Rutilus rutilus</i> )	0.002
2	Danube bleak / <i>Chalcalburnus chalcoides</i> /	0.093
3	Grass carp / <i>Ctenopharingodon idella</i> /	2.840
4	Silver carp / <i>Hypophthalmichthys molitrix</i> /	6.561
5	White barbel / <i>Barbus barbus</i> /	7.733
6	Zander / <i>Sander lucioperca</i> /Stizostedion lucioperca/	4.359
7	Crayfish ( <i>Astacus leptodactylus</i> )	1.510
8	Crucian carp / <i>Carassius carassius</i> /	13.140
9	Pontic shad, Danube mackerel / <i>Caspialosa pontica</i> /Alosa pontica/	1.924
10	Burbot ( <i>Lota lota</i> )	0.150
11	Vimba bream / <i>Vimba vimba</i> /	2.566
12	Common bream / <i>Abramis brama</i> /	6.079
13	Bighead carp / <i>Aristichthys nobilis</i> /	3.283

	Type of fish/aquatic species	Quantity (tons)
14	Asp box /Aspius aspius/	1.118
15	Chub /Leuciscus cephalus/	0.190
16	European perch /Perca fluviatilis/	0.240
17	Sabrefish (Pelecus cultratus)	0.008
18	Common nase /Chondrostoma nasus/	0.934
19	European catfish /Sillurus glanis/	5.673
20	Freshwater crayfish (Astacus leptodactylus)	0.180
21	Prussian carp /Carassius sp./	14.744
22	Bleak /Alburnus alburnus/	3.531
23	Common rudd /Scardinius erythrophthalmus/	0.038
24	Blue bream (Abramis ballerus)	0.020
25	Carp /Cyprinus carpio/	11.875
26	Pike /Esox lucius/	0.578
27	Others	0.445
	<b>Total for the Danube river</b>	<b>89.813</b>
	<b>B. Black Sea</b>	
28	Atherina /Atherina spp./	28.603
29	White sand mussel / Mya arenaria /	758.091
30	Deep sea worm	0.005
31	Garpiki (Belone belone)	3.608
32	Leaping mullet /Liza saliens/	1.743
33	Turbot /Psetta maxima/	70.376
34	Pontic shad, Danube mackerel /Caspialosa pontica/Alosa pontica/	22.580
35	So-iuy mullet (Mugil soiyu)	0.233
36	Sea bass / Dicentrarchus labrax/Morone labrax /	0.292
37	Bluefish /Pomatomus saltatrix/	302.107
38	Common stingray /Dasyatis pastinaca/	3.512
39	Thornback ray /Raja clavata/	17.565
40	Monkfish /Lophius piscatorius/	0.535
41	Snouted sole /Solea solea/	0.002
42	Flathead mullet /Mugil cephalus/	4.926
43	Common prawn /Leander spp./	0.293
44	Yellow crab /Eriphia verrucosa/	0.066
45	Atlantic bonito /Sarda sarda/	1.483
46	Flounder /Platichthys flesus luscus/	0.044
47	Golden grey mullet/ Liza aurata /	0.970
48	Goby /Gobiidae/	32.431
49	Sand shrimp / Crangon sp./	1.568
50	Rapa whelk (Rapana venosa)	2,166.424
51	European pilchard (Sardina pilchardus)	0.003
52	Scad /Trachurus mediterraneus ponticus/	274.081
53	Anchovy /Engraulis encrasicolus ponticus/	1,176.787
54	European sprat (Sprattus sprattus sulinus)	3,478.799
55	Black mussel /Mytilus galloprovincialis/	97.826
56	Black Sea Mullet /Mullus barbatus ponticus/	445.406
57	Spiny dogfish /Squalus acanthias/	19.652
58	Black Sea whiting /Merlangius merlangus euxinus/	10.198

	Type of fish/aquatic species	Quantity (tons)
59	Others	0.248
	<b>Total for the Black Sea</b>	<b>8,920.457</b>
	<b>Total for the Black Sea and the Danube River</b>	<b>9,010.270</b>

Source: EAFA (data as of 30.06.2022)

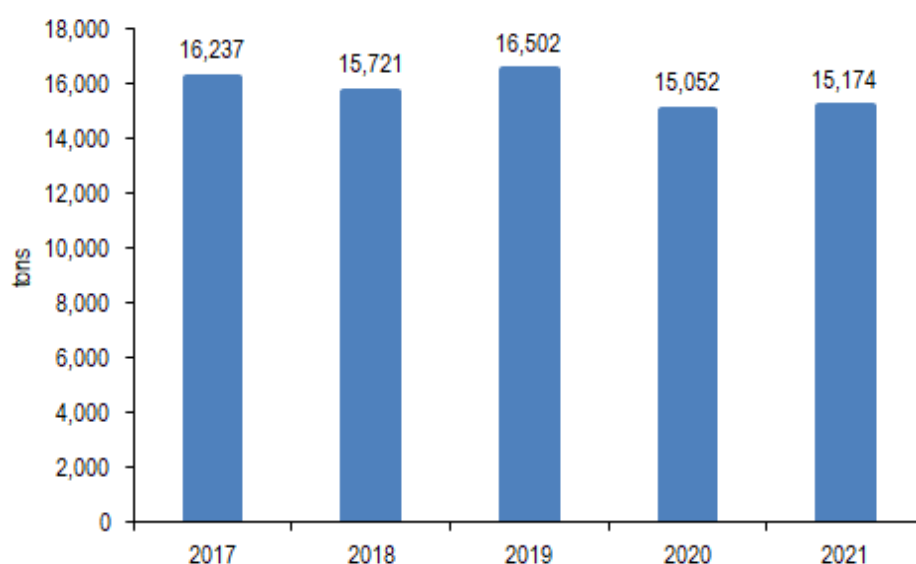
In the first five months of 2022, the reported total economic fish catch and other aquatic organisms in the country amounted to 2,321.5 tons, marking a decrease of 31.3% compared to the same period in 2021. Catches in the Black Sea decreased by 31, 5% on an annual basis, up to 2,299.2 tons, and that in the Danube River - by 2.2%, up to 22.3 tons.

### Production of fish and other aquatic organisms

According to EAFA data, by the end of 2021 there were a total of 745 active fish farms in the country. Of these 722 were for freshwater aquaculture and 23 - for marine aquaculture.

In 2021, the total production of aquaculture (stocking material, fish and other aquatic organisms for consumption) in specialized fish farms was 15,173.7 tons - 0.8% above the level of the previous year.

**Figure VII.2. Production of fish and other organisms in specialized fish farms for the period 2017 - 2021, tons**



Source: EAFA

The total production of stocking material in fish farms was 2,201.05 tons, which represents a growth of 7.4% compared to the previous year. This was mainly due to the increased production of stocking material from two of the main fish species grown in fish farms - rainbow trout - by 22.9% to 891.5 tons; and carp - by 26.6% to 689.1 tons. The production of stocking material from African catfish and zander was also significantly higher. At the same time, production of stocking material of grayling fell to 2.8 tons and that of brook (Balkan) trout to 22.2 tons, at 103 tons and 30.2 tons respectively in 2020.

In 2021, the production of fish and other aquatic organisms for consumption amounted to 12,972.6 tons - without a significant change (-0.2%) compared to 2020.

Traditionally, the production of fish for consumption from the rainbow trout, carp and bighead carp species was the largest. Compared to 2020, the production of sterlet and Siberian sturgeon for consumption has almost tripled on an annual basis, and of beluga sturgeon nearly doubled.

In 2021, the production of fish species that are by-catches in extensive and semi-intensive hot water

farms - bream, bleak, perch and red perch was reported. These species are not subject to targeted breeding and rearing in aquaculture.

The main species of marine aquaculture grown in the coastal waters of the country traditionally is the black mussel. In 2021, its output for consumption increased by 20.2% compared to the previous year, reaching 2,573.7 tons.

**Table VII.3. Production of fish stocking material, fish and aquatic organisms in fish farms, tons**

№	Common and local names	Fish stocking material		Fish for human consumption		Total weight	
		2020	2021	2020	2021	2020	2021
1	Brown (Balkan) trout	30.16	22.17	15.99	14.90	46.14	37.07
2	Rainbow trout	725.14	891.49	4,811.02	4,535.72	5,536.17	5,427.21
3	Brook trout	103.03	2.76	6.79	0.92	109.81	3.68
4	Pike	3.67	3.56	16.60	13.12	20.27	16.68
5	Tench	0.12	0.07	4.85	0.55	4.96	0.62
6	Bleak	0.00	0.00	5.30	4.88	5.30	4.88
7	Bream	0.00	0.00	6.92	7.37	6.92	7.37
8	Nase	0.00	0.00	0.75	1.45	0.75	1.45
9	Carp	544.41	689.12	3,230.49	3,198.49	3,774.89	3,887.61
10	Crucian carp	0.00	0.00	1.50	2.16	1.50	2.16
11	Prussian carp	4.83	11.14	221.21	234.44	226.04	245.58
12	Silver carp	3.59	16.17	159.50	173.06	163.09	189.23
13	Bighead carp	283.31	274.02	1,359.31	1,223.54	1,642.63	1,497.56
14	Grass carp	182.12	149.64	224.02	260.99	406.14	410.63
15	Black carp	0.00	0.00	5.12	0.47	5.12	0.47
16	Catfish	49.07	32.30	128.58	107.94	177.66	140.24
17	Channel (American) catfish	0.00	0.00	12.00	8.02	12.00	8.02
18	Zander	7.54	43.31	54.19	33.42	61.73	76.73
19	European perch	0.08	0.10	4.91	3.09	4.98	3.19
20	Sterlet	0.45	0.00	1.72	4.91	2.17	4.91
21	Beluga sturgeon	0.00	0.00	20.91	39.89	20.91	39.89
22	Starry sturgeon	0.00	0.00	0.91	0.27	0.91	0.27
23	Russian sturgeon	32.66	2.43	207.96	87.05	240.62	89.48
24	Black mussel	0.00	0.00	2,140.81	2,573.69	2,140.81	2,573.69
25	Other hybrids of the Sturgeon family	0.03	1.81	37.47	68.80	37.51	70.61
26	Lake salmon	0.36	0.96	30.64	0.00	31.00	0.96
27	Paddlefish	41.93	32.71	57.69	54.21	99.61	86.92
28	Green algae	0.00	0.00	4.65	9.80	4.65	9.80
29	Rudd	0.20	0.20	2.83	4.68	3.03	4.88
30	Common Roach	0.00	0.00	2.00	2.30	2.00	2.30
31	African catfish	1.70	26.57	171.90	165.21	173.60	191.78
32	Siberian sturgeon	32.40	0.10	37.45	106.08	69.86	106.18
33	Crayfish	1.12	0.22	5.60	6.42	6.71	6.64
34	Bester	0.00	0.20	4.51	6.24	4.51	6.44
35	Common prawn	0.00	0.00	5.00	18.42	5.00	18.42

№	Common and local names	Fish stocking material		Fish for human consumption		Total weight	
		2020	2021	2020	2021	2020	2021
36	Tilapia	0.00	0.00	0.26	0.12	0.26	0.12
37	Pacific oyster	0.00	0.00	2.57	0.00	2.57	0.00
38	Deep sea worm	0.00	0.00	0.01	0.00	0.01	0.00
	<b>Total</b>	<b>2,047.90</b>	<b>2,201.05</b>	<b>13,003.94</b>	<b>12,972.62</b>	<b>15,051.83</b>	<b>15,173.67</b>

Source: EAFA (data as of 30.06.2022)

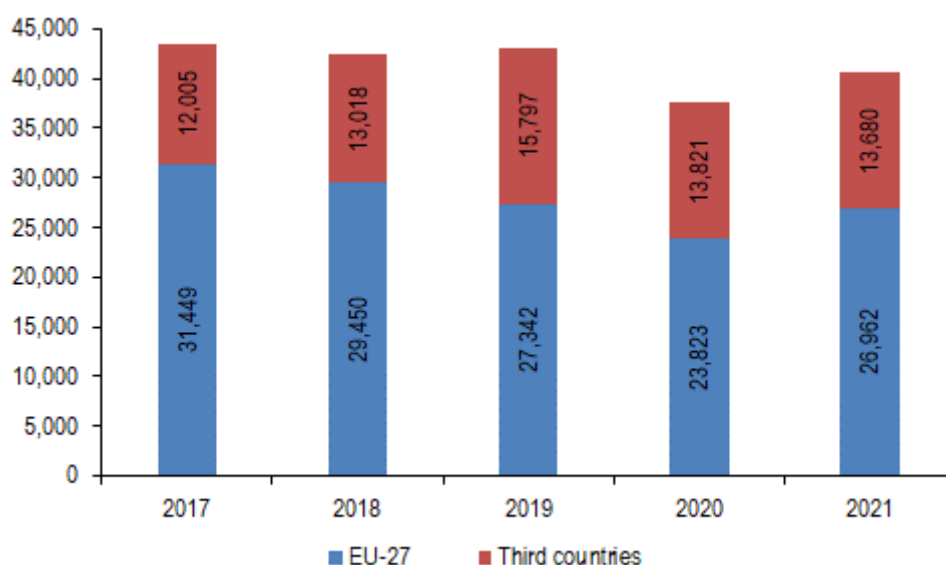
In 2022, an increase in the number of fish farms and, accordingly, in aquaculture production is as expected. The construction of new farms, as well as the modernization and increase of production capacities contribute to the long-term development of the sector.

## 2. Import and export of fish and fish products

### Import

According to NSI data, in 2021 a total of 40,643 tons of fish and fish products were imported into the country. This is 8% above the previous year's level, due to an increase in supplies of fresh and chilled fish, frozen fish, fillets, salted and dried fish, crustaceans and molluscs (live, fresh, chilled, frozen, dried and preserved), while those of live fish, aquatic invertebrates and cooked and canned fish are decreasing.

**Figure VII.3. Import of fish and fish products from the EU and third countries, tons**



Source: NSI

Note: EU-27 includes 27 member states of the European Union (excluding the United Kingdom)

About two-thirds of the total imported quantities of fish and fish products in 2021 were from EU member states. Deliveries from the EU increased by 13.2% on an annual basis, amounting to 26,962 tons, with the main partners being Spain (4.5 thousand tons), the Netherlands (4.5 thousand tons), Greece (3.8 thousand tons), and Denmark (3.7 thousand tons), followed by Romania (2.4 thousand tons), Poland (1.8 thousand tons), etc.

The import of fish and fish products from third countries in 2021 amounted to 13,680 tons, which represents a relative preservation around the level of 2020. During the year, the most significant import was from Canada (2.8 thousand tons), Norway (2.5 thousand tons), Turkey (1.6 thousand tons), Morocco (1.6 thousand tons), and Iceland (1.2 thousand tons).

Traditionally, frozen fish had the largest share in total imports of fish, aquatic organisms and fish

products. In 2021, 16,261 tons of frozen fish, excluding fillets, were imported, which is 10.7% more on an annual basis. The import of frozen mackerel remained the most significant - 9,418 tons, which is 12.5% more compared to the previous year. The deliveries of frozen fish of the following varieties were also relatively large: sardines - 1,357 tons; hake - 1,067 tons; herring - 633 tons; cod - 499 tons, salmon - 154 tons, common scad - 257 tons and trout - 232 tons.

Among the other groups of products, a serious increase on an annual basis was observed in the import of canned crustaceans and molluscs - by nearly 24%, fillets of fish and molluscs - by about 21% each, and more moderately - fresh, chilled and frozen fish, dried and salted fish and crustaceans - within 6.1% - 10.7%. On the other hand, the import of aquatic invertebrates other than crustaceans and molluscs shrank by 39.1%, and those of live fish and cooked and canned fish foods by 9.7% and 1.6%, respectively.

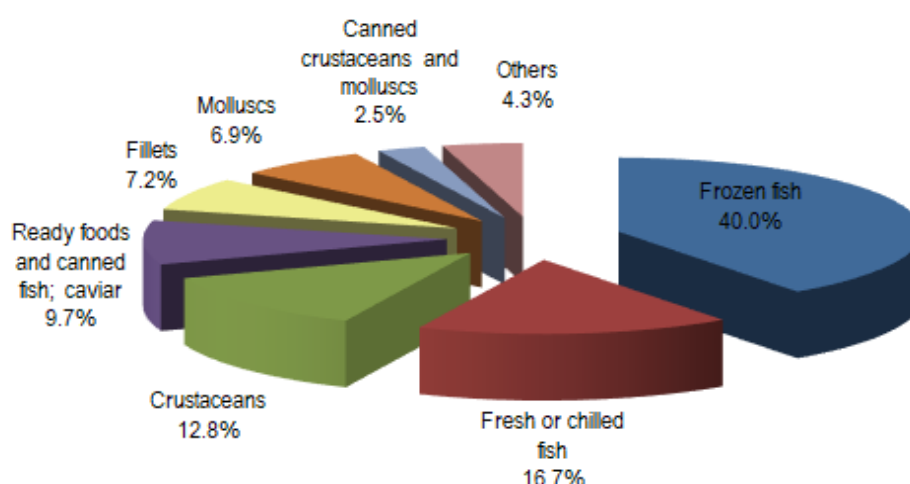
**Table VII.4. Import of fish, other aquatic organisms and fish products, tons**

Products	2020	2021	Change 2021/2020
<b>Fish, other aquatic organisms and fish products - total, including:</b>	<b>37,644</b>	<b>40,643</b>	<b>8.0%</b>
Live fish - freshwater and saltwater	450	407	-9.7%
Fish, fresh or chilled, excluding fillets	6,204	6,784	9.4%
Fish - frozen, excluding fillets	14,690	16,261	10.7%
Fish fillets and other fish meat, fresh or chilled, frozen	2,422	2,924	20.7%
Fish - dried, salted, smoked	404	442	9.6%
Crustaceans	4,891	5,189	6.1%
Molluscs*	2,300	2,789	21.2%
Aquatic invertebrates other than crustaceans and molluscs	1,462	890	-39.1%
Ready foods and canned fish; caviar	3,987	3,925	-1.6%
Crustaceans and molluscs, tinned	834	1,032	23.8%

**Source:** NSI and MA calculations.

\*It also includes some terrestrial molluscs that cannot be distinguished.

**Figure VII.4. Structure of import of fish and fishery products in 2021**



**Source:** NSI and MA calculations

According to preliminary data of NSI, a total of 21,233 tons of fish, other aquatic organisms and processed fish products were imported in the first six months of 2022, which is 7.3% more on an annual basis.

There was an increase in supplies both from the EU - by 7.3%, up to 13,186 tons, and from third countries - by 7.4%, up to 8,048 tons.

## Export

According to NSI data, in 2021 the total export of fish, other aquatic organisms and fish products was 16,435 tons. The quantity was 8.5% more on an annual basis, as the main contribution to this was the expanded sale of frozen and dried & salted fish. There was an increase in exports both to the EU and to third countries.

**Table VII.5. Export of fish, other aquatic organisms and fish products, tonnes**

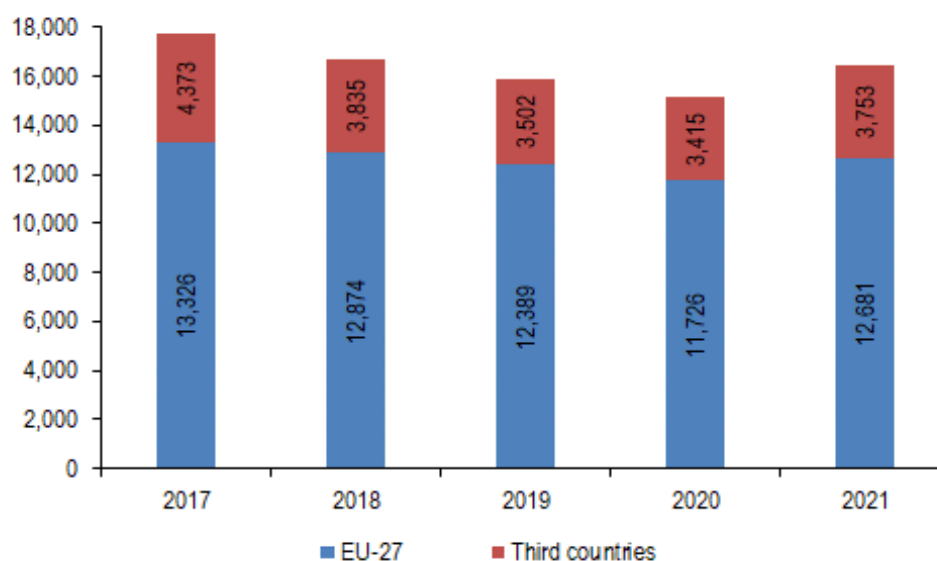
Products	2020	2021	Change 2021/2020
<b>Fish, other aquatic organisms and fish products - total, including:</b>	<b>15,141</b>	<b>16,435</b>	<b>8.5%</b>
Live fish - freshwater and saltwater	1,237	1,257	1.7%
Fish, fresh or chilled, excluding fillets	2,742	2,929	6.8%
Fish - frozen, excluding fillets	1,236	2,040	65.0%
Fish fillets and other fish meat, fresh or chilled, frozen	639	537	-16.0%
Fish - dried, salted, smoked	667	1,177	76.5%
Crustaceans	39	99	156.2%
Molluscs*	2,025	2,000	-1.3%
Aquatic invertebrates other than crustaceans and molluscs	91	37	-59.1%
Ready foods and canned fish; caviar	3,624	3,440	-5.1%
Crustaceans and molluscs, tinned	2,841	2,920	2.8%

**Source:** NSI and MA calculations.

\*It also includes some terrestrial molluscs, which cannot be distinguished.

In 2021, exports of fish and fishery products to the EU amounted to 12,681 tonnes, 8.1% above the previous year's level, accounting for just over 77% of total exports of fish and fishery products. The largest quantities were intended for Romania (6.4 thousand tons) and Sweden (2.7 thousand tons), followed by those for Spain (0.9 thousand tons), Poland (0.7 thousand tons), Belgium (0.6 thousand tons), etc.

**Figure VII.5. Exports of fish, other aquatic organisms and fishery products to the EU and third countries, tons**



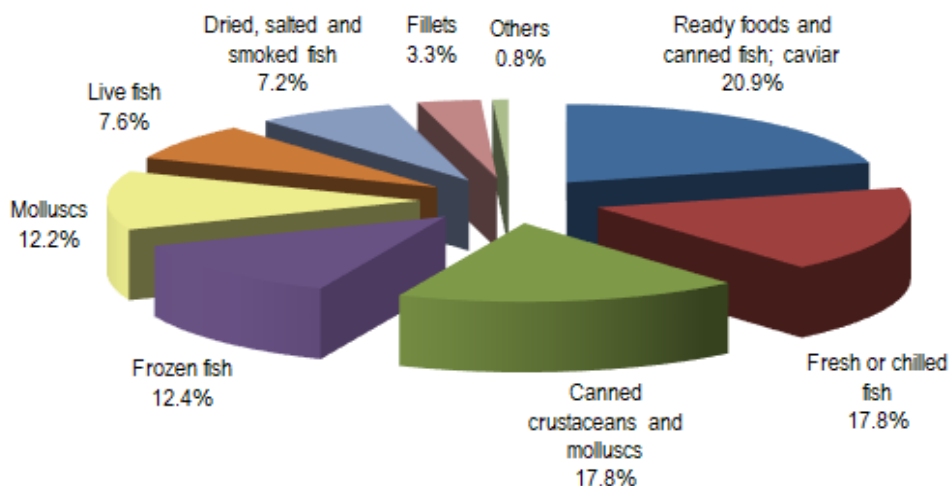
**Source:** NSI

Note: EU-27 includes 27 member states of the European Union (excluding the United Kingdom)



The annual increase in the export of fish and fish products to third countries was 9.9%, up to 3,753 tons, exported to Serbia (1,615 tons), Japan (602 tons), South Korea (544 tons), Bosnia and Herzegovina (316 tons), the United Kingdom (179 tons), the Republic of North Macedonia (153 tons), etc.

**Figure VII.6. Structure of exports of fish and fishery products in 2021**



*Source: NSI and MA calculations.*

By product groups, a significant growth on an annual basis was registered in the export of crustaceans - more than twice; dried, salted or smoked fish - by 76.5%; and frozen fish (predominantly sprats) - by 65%. Although less, the quantities of fresh and chilled fish, canned crustaceans and molluscs and live fish sold outside the country also increased - between 1.7% and 6.8%. At the same time, exports of fish fillets, molluscs, aquatic invertebrates other than crustaceans and molluscs, and prepared and canned fish and caviar shrank by between 1.3% and 59.1%, most sensitively for aquatic invertebrates.

According to preliminary data of NSI, in the first half of 2022, a total of 7,998 tons of fish, aquatic organisms and processed fish products were exported from the country, which is 1.4% less compared to the same period of 2021. The export for the EU increased by nearly 3% to 6,431 tonnes, whereas that for third countries fell by 15% to 1,567 tonnes.

### **3. Maritime and Fisheries Program 2014 - 2020**

In 2021, the loss of funds under the Maritime and Fisheries Program 2014-2020 (MFP) in relation to the N+3 rule was avoided, despite the imposed restrictions and economic consequences on the Fisheries sector as a result of the COVID-19 pandemic. The pace of implementation of the Community-Led Local Development (CLD) approach was strengthened.

The challenges caused by the COVID-19 pandemic for the second year in a row had a negative impact on the sector and made it difficult to implement the Program. In 2021, operators in the sector were once more given the opportunity to benefit from measures to compensate for the loss of revenue within the eligibility period.

In March 2021, a Financial Agreement was concluded between the Managing Authority of the MFP, Agriculture State Fund and "Fund manager of financial instruments in Bulgaria" JSC (FMFIB) for the implementation of Financial Instruments under the MFP. FMFIB is at the stage of finalizing the documentation for conducting a procedure for providing support through the financial product for individual guarantees under the MFP.

In 2021, events organized by the National Fisheries Network (NFN) were being actively implemented, some of them being held online in order to reach more participants.

Steps were taken to develop the new programming period. 8 meetings were held thematic working group

on the development of the Program for Maritime Affairs, Fisheries and Aquaculture 2021-2027. A draft budget of the program was also prepared, divided by types of actions and their corresponding performance indicators. The Managing Authority plans to use simplified costs and financial instruments for a wide range of operations.

In 2021, the highest interest was to MFP measures to overcome the consequences of the pandemic under Union Priority (UP) 1, 2 and 5. Under UP 4, it should be noted that locally there was growing interest in the measures of the Community-Led Local Development strategies.

Under the Maritime Affairs and Fisheries Program 2014-2020, 151 contracts were concluded in 2021, and the implementation of the Program according to EU priorities is as follows:

***Union priority 1: Promoting environmentally sustainable, innovative, competitive and knowledge-based, resource-efficient fisheries***

8 measures were initially set at Program level under UP 1. In connection with the COVID-19 pandemic and the need to optimize the program budget, two changes were made and the priority measures became 7. In 2021, 6 procedures under 6 measures under UP 1 were launched.

Main achievements under UP 1 - 12 administrative contracts for granting financial aid (AGC) were concluded.

Measures opened for calls:

- 1.8 "Fishing ports, landing piers, fish markets and marinas", sector "Investments aimed at construction and/or modernization of marinas";
- 1.9 "Support for owners of fishing vessels and fishermen to overcome the economic consequences of the outbreak of COVID-19 due to temporary cessation of fishing activities".

According to Measure 1.8, the current budget is BGN 27,826,238 (EUR 14,227,548). 6 contracts were concluded with a total value of BGN 23,629,234 (EUR 12,081,621) in grants or 85% of the measure's budget.

In 2021, under the measure, a call with a budget of BGN 4,158,429 (EUR 2,126,204) in grants was announced. 4 project proposals have been received and are in the process of evaluation. According to the measure, in 2022, there was a planned targeted call aimed solely at the construction and/or modernization of marinas with a budget of BGN 1,898,071 (EUR 970,483) in grants.

Under Measure 1.9 a second call with a budget of BGN 2,259,766 (EUR 1,155,418) was announced. 89 project proposals were received. The assessment was completed and in 2022, 61 contracts worth BGN 2,252,914 (EUR 1,151,914) in grants were signed, with 20 more contracts worth BGN 679,211 (EUR 347,280) in grants as a reserve.

In 2020, 71 contracts were concluded with a total value of BGN 1,818,333 (EUR 929,713) in grants.

The current budget under the measure amounts to BGN 4,078,097 (EUR 2,085,130) in grants. A total of 132 contracts were concluded under the two calls. The budget under the measure is 100% implemented.

The agreed funds under UP 1 in 2021 amounted to BGN 1,683,324 (EUR 860,683) in grants or 5% of the priority budget.

The certified funds in 2021 amounted to BGN 7,268,328 (EUR 3,716,294) in grants or 20% of the priority budget.

***Union priority 2: Fostering environmentally sustainable, innovative, competitive and knowledge-based resource-efficient aquaculture***

4 measures are set at Program level under Union Priority 2. In 2021, 5 procedures under 3 measures under UP 2 were launched.

Main achievements under UP 2 in 2021 - 45 AGC were concluded.

Measures opened for calls:

- 2.6 "Support to producers of fish and other aquatic organisms to address the economic consequences of the COVID-19 pandemic".

Under Measure 2.6 "Support to producers of fish and other aquatic organisms to address the economic consequences of the COVID-19 pandemic" in 2021 a second call was opened with a budget of BGN 6,153,537 (EUR 3,146,302) in grants. 41 contracts worth BGN 1,541,483 (EUR 788,160) in grants were concluded under the second call.

The current budget under the measure amounted to BGN 8,511,562 (EUR 4,351,959) in grants. A total of 109 contracts were concluded with a total value of BGN 3,899,507 (EUR 1,993,817) or 46% of the measure's budget under both calls.

The certified funds under UP 2 in 2021 amounted to BGN 6,927,664 (EUR 3,542,113) in grants or 11% of the priority budget.

### ***Union Priority 3: Promoting the implementation of the Common Fisheries Policy***

The development under the priority continues actively, working hard on the selection of project proposals. The concluded contracts were being successfully implemented by EAFA.

Main achievements under PS 3 - 6 AGC were concluded.

Measures opened for calls:

- 3.1 "Control and enforcement" (the call started in 2017 and has a deadline in 2023);
- 3.2 "Data collection under the National Program for Data Collection and Management of the Fisheries Sector 2017 - 2019" (the started in 2017 and has a deadline in 2023).

The current budget under Measure 3.1 "Control and enforcement" is BGN 14,542,924 (EUR 7,435,793) in grants. 6 contracts worth BGN 2,799,981 (EUR 1,431,630) in grants were concluded in 2021. In total, 31 contracts worth BGN 15,858,431 (EUR 8,108,411) in grants or 111% have been concluded under the measure so far.

The current budget under Measure 3.2 "Data Collection" is BGN 8,149,156 (EUR 4,166,661) in grants. In 2021, no contracts were concluded under the measure. 3 contracts worth BGN 4,852,350 (EUR 2,481,005) in grants or 60% have been concluded so far.

The paid funds under UP 3 in 2021 amounted to BGN 2,405,819 (EUR 1,230,094) in grants or 11% of the priority budget.

The certified funds in 2021 amounted to BGN 680,728 (EUR 348,056) in grants or 3% of the priority budget.

### ***Union Priority 4: Increasing Employment and Territorial Cohesion***

In 2021, the trend in the implementation of the community-led local development (CLLD) approach was retained.

Main achievements under UP 4 - in 2021, 58 AGC in the amount of BGN 6,897,280 (EUR 3,526,577) in grants were concluded.

The total budget for the announced procedures under the CLLD strategies for 2021 amounted to BGN 10,871,996 (EUR 5,558,848). By the end of the reporting period, 218 project proposals were submitted under the open 104 procedures of the strategies for the CLLD of the local initiative fishing groups (LIFG).

In 2021, 30 procedures for receiving project proposals from the approved 9 strategies for CLLD of LIFG were opened.

The certified funds at UP 4 level in 2021 amounted to BGN 4,754,124 (EUR 2,430,782) in grants.

### ***Union Priority 5: Fostering marketing and processing***

The interest in measures 5.4 "Processing of fishery and aquaculture products" and 5.4 "Support for processors of fishery and aquaculture products to address the economic consequences of the COVID-19 pandemic" was the greatest under UP 5. The implementation of measure 5.3 "Measures for market supply" is in line with the strategy of the Managing Authority of MFP to achieve the results of the measure, which are expected to continue to be realized in 2022 and 2023. The low interest in measure 5.1 "Plans for production and marketing" was due to the fact that there was only one recognized producer organization that can implement a production and marketing plan. In 2021, a second organization was registered - that of white mussel producers. A new call is planned for 2022.

Main achievements under PS 5 - 20 AGC were concluded.

Measures opened for calls:

- 5.1 "Plans for production and marketing";
- 5.4 "Support for processing enterprises of fishery and aquaculture products to address the economic consequences of the COVID-19 pandemic" - second call.

The call under measure 5.1 "Plans for production and marketing" with a budget of BGN 178,330 (EUR 91,180) in grants. Until 2021, 1 contract worth BGN 49,920 (25,524 EUR) in grants was concluded and one project proposal worth BGN 77,250 (39,498 EUR) in grants was received, or 43% of the budget of the measure. The evaluation was completed in May 2022 and a contract was signed.

In total, two contracts for the provision of grants with a total value of 127,170 BGN (EUR 65,022) in grants or 71% of the budget of the measure were concluded under the measure.

A call under Measure 5.3 "Measures for market supply" was not announced in 2021. The current budget under the measure is BGN 1,783,298.44 (EUR 911,800) in grants. 12 contracts worth BGN 1,569,174 (EUR 802,318) in grants were concluded under the measure. In 2022, a new call is planned with a budget of BGN 212,726 (EUR 108,767) in grants.

Under measure 5.4 "Processing of fishery and aquaculture products" was not announced in 2021. The current budget of the measure was BGN 25,113,532 (EUR 12,840,542) in grants. 25 contracts worth BGN 17,168,614 (EUR 8,778,308) in grants were concluded under the measure.

The announced call under measure 5.4 "Support for processing enterprises of fishery and aquaculture products to address the economic consequences of the COVID-19 pandemic — second call" has a budget of BGN 3,186,625 (EUR 1,629,321) in grants. 14 contracts worth BGN 1,059,300 (EUR 541,620) in grants were concluded. Total 35 contracts worth BGN 2,738,300 (EUR 1,400,092) in grants were concluded under both calls.

The certified funds under UP5 in 2021 amounted to BGN 5,410,986 (EUR 2,766,636) in grants or 17% of the priority budget.

### ***Union Priority 6: Integrated Maritime Policy***

3 measures were set under UP 6 at Program level, after amendment of the OP approved by the European Commission on 04.12.2020, measure 6.2 was repealed. There was a moderate interest in measure 6.3 "Raising awareness of the marine environment", given the difficulties of the beneficiaries to provide financial resources for implementation of the projects.

Main achievements under PS 6 - 5 AGC were concluded.

In 2021, no payments were made under UP 6.

The current budget under Measure 6.1 "Integrated Maritime Surveillance" is BGN 3,031,491 (EUR 1,550,000) in grants. 1 contract worth BGN 3,017,091 (EUR 1,542,638) in grants was concluded in 2020 (EMFF and national funding).

The current budget of measure 6.3 "Raising awareness of the marine environment" amounts to BGN 3,031,489 (EUR 1,550,000) in grants. 5 contracts worth BGN 1,660,844 (EUR 849,189) in grants were

concluded in 2021. In total, 8 contracts have been concluded under the measure worth BGN 2,888,272 (EUR 1,476,773) in grants or 95% of the measure's budget.

Because of the impossibility to launch measure 6.2 "Promoting the protection of the marine environment and sustainable use of marine and coastal resources", due to gaps in the regulatory framework, i.e. the Biodiversity Act, which prevent its launching, despite the efforts made by the managing authority and in view of the approaching end of the program period, the managing authority redirected its budget to measure 6.3 "Raising awareness of the marine environment", since the funds under PU 6 cannot be redirected to other PUs, and at the same time a great interest was registered in measure 6.3.

Pursuant to the Agreement for Delegation of Functions for Implementation of the RDP 2014- 2020, the SFA - Paying Agency, as the Intermediate Body of the Managing Authority, verifies the expenditures upon submission of a request for payment.

In 2021, payment requests according to the table below were accepted, verified and paid through UMIS 2020.

**Table VII.6. Projects paid under measures of MFP 2014 - 2020 in 2021 (BGN)**

Measure	Number of projects	Amount paid	National funding	European funding
1.6. Conservation and restoration of marine biodiversity and ecosystems and compensation regimes in the framework of sustainable fishing activities	1	72,843.94	19,478.47	53,365.47
1.8. Investments for improvement of the infrastructure in the fishing ports, investments for improvement of unloading berths. Construction or modernization of boat docks	5	7,376,049.76	1,972,355.71	5,403,694.05
1.9 Support for owners of fishing vessels and fishermen to overcome the economic consequences of the outbreak of COVID-19 due to temporary cessation of fishing activities	1	2,731.26	730.34	2,000.92
2.2. Productive investments in aquaculture	13	1,826,774.88	456,693.73	1,370,081.15
2.3 Fostering new aquaculture producers, developing sustainable aquaculture	5	1,607,357.24	401,839.31	1,205,517.93
2.5. Aquaculture providing environmental services	3	306,700.60	76,675.15	230,025.45
2.6. Support to producers of fish and other aquatic organisms to address the economic consequences of the COVID19 pandemic	52	1,335,794.22	333,948.59	1,001,845.63
a. Control and enforcement	4	2,405,818.61	240,581.86	2,165,236.75
4.1. Preparatory support for CLLD strategies, including the establishment of a National Fisheries Network		-2,177.78	-326.66	-1,851.12
4.2. Implementation of community-led local development strategies	79	4,570,387.49	685,558.18	3,884,829.31
5.1. Plans for production and marketing	1	49,920.00	12,480.00	37,440.00
5.3. Establishment of producer organizations, associations of producer organizations or interbranch organizations Search for new markets and improvement of the conditions for placing fishery and aquaculture products on the market	1	926,311.35	231,577.84	694,733.51
5.4. Processing of fishing and aquaculture products	6	2,454,281.50	613,570.37	1,840,711.13
5.4. Support for processing enterprises of fishery and aquaculture products to address the economic consequences of the COVID-19 pandemic	15	1,051,961.47	262,990.36	788,971.11
6.3 Raising awareness of the marine environment	1	188,044.29	47,011.07	141,033.22

Measure	Number of projects	Amount paid	National funding	European funding
7.1. Technical assistance	14	2,384,435.73	596,108.95	1,788,326.78
<b>Total:</b>	<b>201</b>	<b>26,557,234.56</b>	<b>5,951,273.27</b>	<b>20,605,961.29</b>

Source: SFA

## **Overall progress in the implementation of the Maritime and Fisheries Program 2014 - 2020 as of 20.06.2022**

### ***Priority 1: Promoting environmentally sustainable, innovative, competitive and knowledge-based, resource-efficient fisheries***

Measure 1.2. "Investments for improvement of hygiene, health, safety and working conditions on board or of individual equipment, provided that those investments exceed the requirements under Union or national law". 2 payments have been made with a total value of the grant of BGN 15,762.40.

Measure 1.3. "Permanent cessation of fishing activities". 8 payments have been made with a total value of the grant of BGN 483,173.09.

Measure 1.6 "Conservation and restoration of marine biodiversity and ecosystems and compensation regimes in the framework of sustainable fishing activities". 4 payments have been made with a total value of the grant of BGN 456,241.88.

Measure 1.7. "Added value, product quality and use of unwanted catches" 4 payments have been made with a total value of the grant of BGN 359,673.00.

Measure 1.8. "Investments for improvement of the infrastructure in fishing ports, investments for improvement of the unloading berths. Construction or modernization of boat docks. 19 payments have been made with a total value of the grant of BGN 20,658,188.76.

Measure 1.9. "Support for owners of fishing vessels and fishermen to overcome the economic consequences of the outbreak of COVID-19 due to temporary cessation of fishing activities". 131 payments have been made with a total value of the grant of BGN 4,059,370.42.

### ***Priority 2. "Fostering environmentally sustainable, innovative, competitive and knowledge-based resource-efficient aquaculture"***

Measure 2.2. "Productive investments in aquaculture". 92 payments have been made with a total value of the grant of BGN 17,402,418.05

Measure 2.3. "Encouraging new aquaculture producers, developing sustainable aquaculture". 18 payments have been made with a total value of the grant of BGN 4,440,112.30.

Measure 2.5. "Aquaculture providing environmental services". 7 payments have been made with a total value of the grant of BGN 582,128.33.

Measure 2.6. "Support for producers of fish and other aquatic organisms to address the economic consequences of the COVID-19 pandemic" 103 payments have been made with a total value of the grant of BGN 3,525,033.51.

### ***Priority 3. "Fostering the implementation of CFP"***

Measure 3.1. Control and enforcement. 35 payments have been made with a total value of the grant of BGN 10,954,671.95.

Measure 3.2. Data collection 7 payments have been made with a total value of the grant of BGN 3,668,479.65.

### ***Priority 4. "Increasing employment and territorial cohesion"***

Measure 4.1 "Preparatory support for CLLD strategies, including the establishment of a National Fisheries Network". 13 payments have been made with a total value of the grant of BGN 506,393.76.

Measure 4.2. "Implementation of community led local development strategies" 234 payments have been made with total value of the subsidy BGN 12,423,088.88.

**Priority 5. "Fostering marketing and processing"**

Measure 5.1. "Plans for production and marketing" Payments made - 1 with a total value of the grant of BGN 49,920.00.

Measure 5.3. "Establishment of producer organizations, of associations of producer organizations or of interbranch organizations. Searching for new markets and improving marketing conditions for fisheries and aquaculture products". 9 payments have been made with a total value of the grant of BGN 1,276,202.73.

Measure 5.4. "Processing of fishing and aquaculture products". 36 payments have been made with a total value of the grant of BGN 14,874,334.84.

Measure 5.4. "Support for processing enterprises of fishery and aquaculture products to address the economic consequences of the COVID-19 pandemic". 35 payments have been made with a total value of the grant of BGN 2,650,961.47.

**Priority 6. "Fostering the implementation of the Integrated Maritime Policy"**

Measure 6.1. "Integrated Maritime Surveillance". 1 payment has been made with a total value of the grant of BGN 905,127.18.

Measure 6.3. "Raising awareness of the marine environment" 2 payments have been made with a total value of the grant of BGN 312,004.29.

**Priority 7. "Technical assistance"**

63 payments have been made with a total value of the grant of BGN 9,168,636.35.

**Table VII.7. Projects paid under measures of the MFP 2014 - 2020 for the period 01.01.2022 - 22.06.2022 (BGN)**

Measure	Number of projects	Amount paid	National funding	European funding
1.6. Conservation and restoration of marine biodiversity and ecosystems and compensation regimes in the framework of sustainable fishing activities	1	57,000.00	15,241.80	41,758.20
1.9. Support for owners of fishing vessels and fishermen to overcome the economic consequences of the outbreak of COVID-19 due to temporary cessation of fishing activities	61	2,243,994.08	600,044.03	1,643,950.05
2.2. Productive investments in aquaculture	3	397,169.65	99,292.42	297,877.23
2.3. Encouraging new aquaculture producers, developing sustainable aquaculture	1	495,131.85	123,782.96	371,348.89
2.5. Aquaculture providing environmental services	2	178,744.20	44,686.05	134,058.15
2.6. Support to producers of fish and other aquatic organisms to address the economic consequences of the COVID19 pandemic	0	-3,800.56	-950.14	-2,850.42
3.1. Control and enforcement	1	33,732.95	3,373.30	30,359.65
4.2. Implementation of community-led local development strategies	33	3,262,860.16	489,429.06	2,773,431.10
5.3. Establishment of producer organizations, associations of producer organizations or interbranch organizations Search for new markets and improvement of the conditions for placing fishery and aquaculture products on the market	2	92,025.60	23,006.40	69,019.20

Measure	Number of projects	Amount paid	National funding	European funding
5.4. Processing of fishing and aquaculture products	2	563,001.69	140,750.42	422,251.28
7.1. Technical assistance	7	645,465.89	161,366.49	484,099.40
<b>Total:</b>	<b>113</b>	<b>7,965,325.51</b>	<b>1,700,022.78</b>	<b>6,265,302.73</b>

Source: SFA

### Monitoring

According to Art. 2 of the Agreement for Delegation of Functions for Implementation of the 2014-2020 MFP, inspections were carried out for the implementation of the beneficiaries' production programs, for the use of the financed assets for their intended purpose, as well as inspections for the implementation of the monitoring result indicators. In 2021, administrative inspections were carried out on 67 projects falling under a monitoring period after the final payment of the grant, and on 40 of them on-site inspections were carried out on the basis of risk analysis. The results of the inspections were summarized and reported to the MA of the MFP.

### Expected data for 2022

**Table VII.8. Forecast for payments under the MFP 2014 - 2020 for 2022**

Union priorities	Measures under the Union priorities	EMFF	National co-financing	Total financial resources
Priority 1 "Promoting environmentally sustainable, innovative, competitive and knowledge-based, resource-efficient fisheries"	Measure 1.1. Diversification and new forms of income	290,941.61	106,176.13	397,117.74
	Measure 1.2 Health and Safety	5,756.15	2,100.65	7,856.80
	Measure 1.6. Conservation and restoration of marine biodiversity and ecosystems and compensation regimes in the framework of sustainable fishing activities - 73.26%	731,749.56	267,044.42	998,793.98
	Measure 1.7 Added value, product quality and use of unwanted catches	2,429.27	886.54	3,315.81
	Measure 1.8. "Investments for improvement of the infrastructure in the fishing ports, investments for improvement of unloading berths. Construction or modernization of boat docks" - 73.26%	1,465,266.25	534,733.75	2,000,000.00
	Measure 1.9 Temporary cessation of fishing activities COVID 19	2,684,055.11	979,518.12	3,663,573.23
Priority 2 "Fostering environmentally sustainable, innovative, competitive and knowledge-based resource-efficient aquaculture"	Measure 2.2. Productive investments in aquaculture - 75% sector "Small projects" and sector "Recycling systems and construction of new ones, as well as expansion and modernization of existing aquaculture farms"	3,654,507.25	1,218,169.08	4,872,676.33
	Measure 2.3. Fostering new aquaculture producers developing sustainable aquaculture - 75%	9,470,095.98	3,156,698.66	12,626,794.64
	Measure 2.5. Aquaculture providing environmental services	290,294.86	96,764.95	387,059.81
	Measure 2.6 "Support to the aquaculture sector for temporary suspension or reduction of the production COVID 19"	253,947.98	84,649.33	338,597.30



Union priorities	Measures under the Union priorities	EMFF	National co-financing	Total financial resources
Priority 3 "Fostering the implementation of the CFP"	Measure 3.1. Support for monitoring, control and implementation, increasing institutional capacity/	2,493,329.36	277,036.60	2,770,365.95
	Measure 3.2. Data collection - 80%	947,095.77	236,773.94	1,183,869.71
Priority 4 "Increasing employment and territorial cohesion"	Measure 4.2. Implementation of community led local development strategies - 85%	9,876,478.69	1,742,908.00	11,619,386.69
Priority 5 "Fostering of marketing and processing"	Measure 5.1. "Plans for production and marketing"	213,748.31	71,249.44	284,997.74
	Measure 5.4. Processing of fishery and aquaculture products - 75% COVID-19	65,503.90	21,834.63	87,338.53
	Measure 5.4. Processing of fishery and aquaculture products - 75%	1,685,713.25	561,904.42	2,247,617.67
Priority 6 "Integrated Maritime Policy"	Fostering the implementation of the IMP - Article 80 (1.1) of Reg. 508/2014 IMP	683,972.57	227,990.86	911,963.43
	Fostering the implementation of the IMP - Article 80 (3.1) of Reg. 508/2014 Knowledge of the marine environment	350,729.39	116,909.80	467,639.19
Technical assistance	75%	262,500.00	87,500.00	350,000.00
<b>Total:</b>		<b>35,165,615.24</b>	<b>9,703,349.31</b>	<b>44,868,964.55</b>

Source: MA, Maritime and Fisheries Directorate

**Table VII.9. Upcoming calls under the MFP 2014 - 2020 until the end of 2022**

Measure	Scheduled calls in 2022	Total budget of the measure (BGN)	Application deadline
Measure 1.2. "Health and safety"	2nd quarter	7,960.64	90 days from the date of announcement of the procedure
Measure 1.7. "Added value, product quality and use of unwanted catches"	2nd quarter	373,657.96	90 days from the date of announcement of the procedure
Measure 1.8. "Fishing Harbours, Landing Wharves, Fish Markets, and Marinas"	2nd quarter	1,898,071.47	90 days from the date of announcement of the procedure
Measure 2.2. "Productive Investments in Aquaculture - Small Projects Sector"	2nd quarter	665,860.67	Two calls per 60 days from the date of announcement of the procedure
Measure 2.2. "Productive Investments in Aquaculture - Major Projects Sector"	2nd quarter	5,520,587.45	90 days from the date of announcement of the procedure
Measure 5.1. "Plans for production and marketing"	2nd quarter	51,159.84	90 days from the date of announcement of the procedure
Measure 5.3 "Marketing measures"	2nd quarter	212,725.59	90 days from the date of announcement of the procedure

Measure 5.4. Processing of fishery and aquaculture products "Support for processing enterprises of fishery and aquaculture products to address the economic consequences of the COVID-19 pandemic", measure 5.4 "Processing of fishery and aquaculture products", Art. 69 (3) of Regulation (EU) 508/2014	2nd quarter	4,168,025.23	90 days from the date of announcement of the procedure
Measure 6.3. "Integrated Maritime Policy Raising awareness of the marine environment" Article 80.1.c	2nd quarter	615,000.00	90 days from the date of announcement of the procedure

Source: MA, Maritime and Fisheries Directorate

In 2022, Regulation (EU) 2022/1278 of the European Parliament and of the Council of 18 July 2022 amending Regulation (EU) No. 508/2014 regarding special measures to mitigate the consequences of Russia's war of aggression against Ukraine on fishing activities and to limit the impact of the market disruption caused by this war of aggression on the fisheries and aquaculture supply chain. The amendment includes the possibility of financial compensation for additional costs, for lost revenue and for the storage of products, as well as for the temporary suspension of fishing activities where they are currently unsafe.

The MFP MA will, as soon as possible, amend the Program for the redirection of funds to compensatory measures and will open a call for the provision of compensation for the three sub-sectors, in a manner similar to the compensatory measures for the consequences of the COVID-19 pandemic. In this way, two goals will be achieved at the same time - on the one hand, support for the sector in the extremely complex economic situation, and on the other, the absorption of freed financial resources.

#### 4. Common Fisheries Policy

The Common Fisheries Policy (CFP) contains rules for the management of the European fishing fleets and the conservation of fish stocks, measures and actions to promote environmentally sustainable, innovative, competitive and knowledge-based fisheries and aquaculture.

The common organization of the markets (CMO) in fisheries and aquaculture products is part of the CFP and aims to protect producers and ensure environmental sustainability and economic viability of the fisheries and aquaculture products market. A major factor in achieving the CMO objectives is fishery and aquaculture producer organisations, associations of producer organisations, and interbranch organizations.

With the application of Ordinance No. 7 of 2018 on the conditions and procedure for recognition of fishery and aquaculture producer organisations, associations of producer organisations and interbranch organisations in the fisheries sector, and the approval of production plans and marketing (promulgated, SG, issue 99 of 2018) the conditions for implementation of the requirements of Regulation (EU) No. 1379/2013 of the European Parliament and of the Council of 11 December 2013 on the common organization of the markets in fishery and aquaculture products, amending Regulations (EC) No. 1184/2006 and (EC) No. 1224/2009 and repealing Council Regulation (EC) No.104/2000 are set.

In 2021, in connection with the exercise of control over professional organizations in the fisheries sector, recognized under the Fisheries and Aquaculture Act (FAA) and Regulation No. 7 of 2018, inspections were carried out to establish their compliance with the regulatory requirements. During the year, a new organization of producers of fishing products "Organization of Black Sea Clam Producers" was recognized in the following areas: coastal fishing, diving fishing and manual fishing for the product types: Black Sea fish, bivalves and shellfish. Inspections were also carried out for the degree of implementation of the approved Production and Marketing Plan of the producer organization *Black Sea Sunrise* Association and for the approval of the annual report on its implementation.

In 2021, 5 meetings of the standing committee were held for the recognition of producer organizations of fishery and/or aquaculture products, associations of producer organizations and interbranch organizations in the fisheries sector and to exercise control over their activity (according to Art. 10 (7) of the Fisheries and Aquaculture Act).

In order to protect the populations of fish and other aquatic organisms, temporary prohibitions and restrictions on fishing in natural and artificial water bodies throughout the country were introduced in 2021. Thus conditions for protection of fish and other aquatic organisms during their breeding season, as well as in certain reservoirs and/or areas thereof, were created

An awareness campaign was carried out with the aim of raising awareness among fishermen about the reasons for extending the ban on catching the species Russian sturgeon (*Acipenser gueldenstaedtii*), sterlet (*Acipenser ruthenus*), starry sturgeon (*Acipenser stellatus*) and Beluga sturgeon (*Huso huso*) in the Bulgarian parts of the river Danube and the Black Sea for a period of 5 years, starting from 1 January 2021, as well as for the need to protect and conserve their populations. Sturgeons are considered one of the most endangered species included in the Red List of the International Union for Conservation of Nature (ICUN), in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and are subject of conservation and management in accordance with Council Directive 92/43/EEC on the Council on conservation of natural habitats and of wild fauna and flora.

The 14th annual session of the Committee on Compliance (CoC) with legislation of the General Fisheries Commission for the Mediterranean (GFCM) was attended. Preparations were made for the high-level meeting to adopt the new GFCM strategy until 2030 for sustainable fisheries and aquaculture in the Mediterranean and Black Sea.

During the year, it took part in the 9th annual meeting of the Black Sea Working Group of the GFCM, whose opinions, as a subsidiary body of the GFCM, are the basis for the preparation of the mandatory recommendations of the GFCM on the management of fisheries and the conservation of marine resources in the Black Sea.

In connection with the participation in the 44th session of the GFCM, technical meetings were held with the European Commission on topics related to the protection of marine biological resources, management of fisheries and aquaculture in the Mediterranean and Black Seas. A number of recommendations and resolutions on the identified problems, threats or scientific advice have been adopted. Of essential importance for Bulgaria are the adopted recommendations establishing measures for the management of sprat and Black Sea spiny dogfish, for the protection and conservation of the sturgeon and cetacean populations, for a scheme for the certification of turbot catches in the Black Sea, etc.

Participation was taken in the 4th International Forum on Fisheries and an exhibition on the fishing industry, marine products and technologies in Saint Petersburg, Russian Federation, dedicated to discussing issues of social and economic stability of the fishing sector, fishing regulation, competitiveness, legislative support of the fishing industry and correlation between the public and private interests.

In November 2021, the seventh regular meeting of the Fisheries Advisory Council (FAC) was held with the participation of representatives of branch organizations in the sector, research institutes and public administrations pertaining to the fisheries sector. Important topics for the sector were discussed, such as: measures to protect white sand mussels by introducing a temporary ban on fishing during their reproductive period; the possibility of implementing a *de minimis* state aid scheme to help fish farmers affected by the increased cost of electricity and feed used for fish farming in 2021; the state of "Fish Resources" EOOD and the ports managed by the company; operation of the fishing vessel monitoring system.

In 2021, the MA actively cooperated with industry representatives and the European Commission, with a view to identifying and taking actions to mitigate and overcome the consequences of the COVID-19 crisis for the Fisheries sector, which continues to face a number of challenges and difficulties related to the contracted market and demand, increased prices of electricity, fuels, feed, oxygen, and raw materials.

In order to support the operators carrying out commercial fishing in Black Sea, to overcome the consequences of the COVID-19 crisis, the Ministry of Agriculture initiated and secured the transfer for 2021 of the amount of turbot catch quota for 2020 not used by Bulgaria.

In order to more effectively regulate the terms and conditions for carrying out the first sale of fishing products, for drawing up and submitting the relevant documents for the first sale, for acceptance and transport,

as well as the general standards for carrying out the first sale of fishing products, in 2021, Ordinance No. 13 of November 30, 2021 was developed on the terms and conditions for the first sale of fishing products (promulgated SG issue 103 of 2021). It is expected that the implementation of the Ordinance to result in consolidation of the by-laws regarding the terms and conditions for the first sale of products from fishing with the Fisheries and Aquaculture Act and the relevant EU legislation.

**Planned activities in 2022:**

- Designation of an area in the Bulgarian waters of Black Sea in which the use of beam trawling is prohibited;
- Introduction of a ban on commercial and recreational fishing of European eel in the waters of the territory of the Republic of Bulgaria and in the Bulgarian water area of Black Sea for a period of 5 years;
- Designation of fishery sites permitted for recreational fishing during the dark part of the day;
- Designation of water bodies for stocking, according to Art. 22A (5) of the Fisheries and Aquaculture Act;
- Introduction of a ban on fishing at the fisheries sites under Art. 3 (1.1) and (1.2) of the Fisheries and Aquaculture Act during the breeding period of fish;
- Introduction of a ban on fishing in 2022, 2023 and 2024 in fish farms or in areas thereof under Art. 3 (1.1) and (1.2) of the Fisheries and Aquaculture Act;
- Conducting public consultations on the need to introduce a ban on fishing for white sand mussels of the species *Donax trunculus* and *Chamelea gallina* in the Bulgarian part of the waters of Black Sea in order to protect and create optimal conditions for their natural reproduction;
- Approval of the Production and Marketing Plan of the new organization of fishery product producers recognized in 2021;
- Approval of the Annual Report on the implemented activities under the Plan for production and marketing of the recognized producer organization in the fisheries sector;
- Carrying out annual checks to establish the compliance of the recognized professional organizations in the fisheries sector with the conditions for recognition;
- Holding a meeting of the Advisory Council on Fisheries to the Minister of Agriculture;
- Participation in the 15th meeting of the GFCM Compliance Committee;
- Preparation and Participation in the 45<sup>th</sup> Annual Session of the GFCM.

## **SECTION B**

### **PROGRAM FOR AGRICULTURAL DEVELOPMENT IN 2023**

The state policy in the agricultural sector is aimed at increasing the competitiveness of Bulgarian agriculture, sustainable development of the fisheries and forestry sectors, improving working conditions and quality of life in rural areas, effective use of European funds, sustainable management of natural resources and compliance with high safety standards in the food production and supply chain. The priorities and objectives of the policy in the agricultural sector and the measures for their achievement in 2022, set in this section, are in compliance with the National Development Programme BULGARIA 2030. In 2023, the implementation of the Strategic Plan for the Development of Agriculture and Rural Areas for the period 2023-2027 (CAP Strategic Plan) will begin, in which interventions to support the sector financed by the European Agricultural Funds are foreseen. The implementation activities of the National Plan for Recovery and Sustainability of the Republic of Bulgaria will be launched, including investments to increase the sustainability and competitiveness of the industry and its readiness to meet the challenges related to the green and digital transition.

#### **PRIORITY 1: STRUCTURAL AND SECTORAL BALANCE OF AGRICULTURE**

##### **AREA OF IMPACT 1 - PLANT GROWING:**

##### **OBJECTIVE: INCREASING THE SUSTAINABILITY OF VULNERABLE SECTORS AND CONTINUING THE POLICIES OF BALANCED AND DIVERSIFIED DEVELOPMENT OF THE PLANT SUBSECTION**

##### **MEASURES:**

1. Improving the competitiveness and sustainability of vulnerable crop sectors through coupled support schemes (for fruit, vegetables, protein crops and special payment for cotton) under the CAP Strategic Plan financed by the European Agricultural Guarantee Fund
2. Support for tobacco producers' incomes through transitional national decoupled tobacco aid
3. Increasing the sustainability and competitiveness of the wine-growing sector by implementing the measures of the National Program to Support the Wine-growing Sector 2019-2023 / interventions under the CAP Strategic Plan
4. Encouraging investments and stimulating the production of high-quality products in crop production with funds from the national budget
5. Improving relations in the field of ownership, use, management and protection of agricultural land by preparing legislative changes

##### **AREA OF IMPACT 2 - ANIMAL HUSBANDRY:**

##### **OBJECTIVE: IMPROVING THE SUSTAINABILITY, EFFICIENCY AND PROFITABILITY OF LIVESTOCK FARMS**

##### **MEASURES:**

1. Improving the competitiveness and sustainability of vulnerable livestock sectors through coupled support schemes (dairy cows, beef cows, ewes and she-goats, buffaloes) under the CAP Strategic Plan
2. Support for livestock farmers' incomes through transitional national aid (for cattle, buffalo, ewes and she-goats)
3. Improving the competitiveness of the Beekeeping sector through interventions set out in the CAP

Strategic Plan

4. Stimulation of the investment activity in livestock breeding with support from the national budget
5. Promotion of animal welfare and protection of genetic resources in animal husbandry with funds from the national budget

### **AREA OF IMPACT 3 - ECONOMIC POTENTIAL OF SMALL AGRICULTURAL HOLDINGS:**

**OBJECTIVE: INCREASING SUSTAINABILITY AND IMPROVING THE COMPETITIVENESS OF SMALL AGRICULTURAL HOLDINGS TO REDUCE DISPROPORTIONS IN THE DEVELOPMENT OF ECONOMIC STRUCTURES IN AGRICULTURE**

#### **MEASURES:**

1. Supplementing the incomes and increasing the competitiveness of small farmers through payments for small farmers under the CAP Strategic Plan financed by the EAGF
2. Increasing the efficiency of small and medium-sized farms and a fairer distribution of support for them through additional redistributive income support for sustainability under the CAP Strategic Plan
3. Support for sustainable development and viability of small agricultural holdings under Sub-measure 6.3 "Start-up aid for development of small holdings from the RDP 2014-2020 / an intervention under the CAP Strategic Plan, financed by the EAFRD

### **AREA OF IMPACT 4 - AGE STRUCTURE OF FARMERS:**

**OBJECTIVE: ATTRACTING AND RETAINING YOUNG PEOPLE IN AGRICULTURE**

#### **MEASURES:**

1. Facilitating the renewal of generations in agriculture through additional income support for young farmers under the CAP Strategic Plan, financed by the EAGF
2. Encouraging young farmers with support under sub-measure 6.1 "Start-up aid for young farmers" under the Rural Development Program 2014-2020 / intervention under the CAP Strategic Plan, financed by the EAGF

### **AREA OF IMPACT 5 - AREAS WITH NATURAL OR OTHER CONSTRAINTS:**

**OBJECTIVE: PRESERVATION OF AGRICULTURAL ACTIVITIES AND HOLDINGS IN AREAS WITH NATURAL AND OTHER CONSTRAINTS**

#### **MEASURE:**

1. Provision of compensatory support under Measure 13 "Payments for areas facing natural or other specific constraints under the RDP 2014-2020" /applying intervention under the CAP Strategic Plan to support the activities of farms in areas with natural and other restrictions

### **PRIORITY 2: GUARANTEEING FAIR AND STABLE INCOME FOR AGRICULTURAL PRODUCERS:**

#### **SCOPE 1 - DIRECT SUPPORT MECHANISMS**

**OBJECTIVE: MAXIMUM UTILIZATION OF THE OPPORTUNITIES FOR DIRECT SUPPORT TO**

## **GUARANTEE THE ECONOMIC SECURITY OF AGRICULTURAL HOLDINGS AND SUSTAINABILITY**

### **MEASURES:**

1. Preparation of an intervention under the Strategic Plan for Agricultural and Rural Development for basic income support for sustainability

## **SCOPE 2 - RISK MANAGEMENT IN AGRICULTURE:**

### **OBJECTIVE: MITIGATING THE IMPACT OF RISKS IN AGRICULTURE ON THE ACTIVITY AND INCOME OF EMPLOYEES IN THE INDUSTRY**

### **MEASURES:**

1. Support for risk and crisis management in agriculture through funds from the national budget
2. Preparation for the implementation of an intervention under the CAP Strategic Plan, aimed at creating a Mutual Fund to support farmers in times of crisis
3. Expanding and strengthening the capacity of the hail protection system by implementing a diversification of the hail prevention methods

## **PRIORITY 3: AGRICULTURAL COMPETITIVENESS**

### **AREA OF IMPACT 1 - MODERNIZATION, INNOVATION AND DIGITAL TECHNOLOGIES IN AGRICULTURAL HOLDINGS**

### **OBJECTIVE: MODERNIZED AND TECHNOLOGICALLY RENOVATED FARMS AND ENTERPRISES. ACCELERATED INTRODUCTION OF INNOVATION AND DIGITALIZATION IN THE AGRICULTURAL PRACTICE**

### **MEASURES:**

1. Fostering the investment processes in agricultural holdings by applying Sub-measure 4.1 "Investments in agricultural holdings" of the RDP 2014-2020 / interventions under the CAP Strategic Plan
2. Fostering the investment process for modernization and technological renewal in the processing and marketing of agricultural products to create higher added value of the industry by implementing Sub-measure 4.2 "Investment in processing/marketing of agricultural products" of the RDP 2014-2020 / interventions under the CAP Strategic Plan
3. Increasing the innovation capacity of the Agriculture sector by stimulating cooperation between business and science - implementation of Sub-measure 16.1 "Support for establishment and functioning of operational groups within the EMI" of the RDP 2014-2020 / applying interventions under the CAP Strategic Plan
4. Applying schemes for investment support under the National Recovery and Resilience Plan through the Fund for Promotion of the Technological and Ecological Transition of Agriculture

### **OBJECTIVE: INCREASING THE INNOVATIVENESS OF SCIENTIFIC RESEARCH IN THE AGRICULTURAL SECTOR**

### **MEASURES:**

1. Creation of new scientific products related to sustainable development of competitive agriculture,

- conservation and efficient use of natural and genetic resources for mitigation and adaptation to climate change, transition to bioeconomy, and circular economy
2. Building partnerships, incl. public-private, for the transfer of scientific knowledge, implementation of good practices and innovations in the Bulgarian agriculture.
  3. Sustainable development of scientific potential in the agricultural sector

**OBJECTIVE: ENSURING TRANSPARENT, ACCESSIBLE, OBJECTIVE AND EFFICIENT MANAGEMENT OF ADMINISTRATIVE PROCESSES THROUGH THEIR ELECTRONIZATION TO REDUCE THE ADMINISTRATIVE BURDEN AND IMPROVE THE BUSINESS ENVIRONMENT IN THE AGRICULTURAL SECTOR**

**MEASURE:**

1. Development of electronic management and improvement of administrative services in the system of the Ministry of Agriculture through:
  - Creating conditions for electronic data exchange between the public administration and farmers to monitor the progress in implementing the objectives of the Green Deal - implementation of activities under the Digitization of the Farm-to-Fork Processes project of the NRRP
  - Expanding the range of administrative services provided by the structures of the Ministry of Agriculture electronically
  - Improving the access to information collected and summarized in the system of the Ministry of Agriculture
  - Publication of information and datasets on the Open Data Portal
  - Development of the Integrated Information System of the BFSA, VetIS, with the aim of increasing the awareness of farmers and facilitating their activities, assisting veterinarians in the implementation of the National Program for the Prevention, Control, and Eradication of Animal Diseases and Zoonoses and reflecting the results of their practice

**AREA OF IMPACT 2 - MARKET POSITION OF AGRICULTURAL PRODUCERS:**

**OBJECTIVE: STRENGTHENING THE ROLE OF AGRICULTURAL PRODUCERS IN THE FOOD SUPPLY CHAIN**

**MEASURES:**

1. Improving the functioning of the supply chains of agricultural products and foods by stimulating the cooperation between the economic entities under Sub-measure 16.4. Support for horizontal and vertical cooperation between the participants in the supply chain of the RDP 2014-2020 / interventions under the CAP Strategic plan
2. Improving the conditions for market access of small agricultural holdings producing fruits and vegetables through support under Measure "Operational programs in the Fruits and vegetables sector"
3. Increasing the market stability and competitiveness of small and medium-sized agricultural holdings by preparing a legislative act regulating cooperation in the agricultural sector
4. Improving the interaction of the agricultural community with state institutions by regulating the representation of national and regional branch organizations in agriculture



### **AREA OF IMPACT 3 - QUALIFICATION AND KNOWLEDGE OF AGRICULTURAL PRODUCERS:**

#### **OBJECTIVE: IMPROVING THE PROFESSIONAL QUALIFICATION AND KNOWLEDGE OF AGRICULTURAL PRODUCERS**

##### **MEASURES:**

1. Organizing and conducting specialized trainings for farmers through long-term and short-term courses and information activities, including within Measure 1 "Transfer of knowledge and information actions" under the RDP 2014 - 2020 / interventions under the CAP Strategic Plan
2. Supporting the transfer of innovative technologies and practices by disseminating the outputs of research projects and developing new products and techniques
3. Dissemination of important agricultural information and innovations in the field of agriculture among farmers through the organization of information and training events of the National Agricultural Advisory Service with scientific institutes, applied research organizations and other institutions and experts
4. Providing specialized advice to farmers in various areas - establishment and management of the farm, implementation of national legislation and EU standards, integrated plant protection, climate and environment, etc.
5. Increasing the activity and contribution of the established "farmer circles" to the district offices of the NAAS, with the participation of active farmers, in the process of spreading useful information in the field of agriculture and promoting good practices in the application and implementation of RDP projects / interventions under the CAP Strategic Plan
6. Expanding the territorial scope of the NAAS through the creation of mobile municipal centers (offices) for consulting services under sub-measure 2.2 "Establishment of consulting services" under measure 2 "Consulting services, farm management services and farm replacement services" from the RDP 2014 - 2020
7. Active functioning of the regional advisory councils for advice in agriculture with the participation of representatives of the NAAS, regional structures of the Ministry of Agriculture, universities, research institutes, non-governmental organizations (NGOs) and farmers
8. Enhancing the use of electronic services and the use of various digital tools for providing advisory services, incl. for conducting online information meetings, seminars, demonstrations, and other trainings for farmers
9. Identification of the main elements and creation of a database with information on the activities of the participants in the Agricultural Knowledge and Information Systems (AKIS) related to the sharing of knowledge and innovations. Processing of information and preparation of analyzes on the state of AKIS in Bulgaria;
10. Creation of an advisory body for the AKIS, including with the participation of agricultural scientific organizations and universities, NAAS, farmers, agricultural companies, farmers' organizations, public bodies related to knowledge and innovations in agriculture
11. Successful implementation of projects under the Horizon 2020 and Horizon Europe programs

### **PRIORITY 4: ROLE OF THE AGRICULTURAL INDUSTRY FOR ENVIRONMENTAL PROTECTION**

#### **AREA OF IMPACT 1 - AGRI-ENVIRONMENTAL COMMITMENTS:**

##### **OBJECTIVE: AGRICULTURAL COMMITMENTS AND SERVICES, RELATED TO THE ENVIRONMENT AND CLIMATE**

**MEASURES:**

1. Stimulating the undertaking of multi-year commitments for protection of the environment and biodiversity under Measure 10 "Agri-environment and climate" of the RDP 2014 - 2020.
2. Preparation of interventions under the Strategic Plan for Agricultural and Rural Development contributing to European and national goals in the field of climate, environment and biodiversity

**AREA OF IMPACT 2 - ORGANIC PRODUCTION:****OBJECTIVE: INCREASING THE PRODUCTION AND SUPPLY OF ORGANIC AGRICULTURAL PRODUCTS****MEASURES:**

1. Stabilizing the income of organic farmers through the implementation of the direct payment system
2. Development of bottom-up local economic initiatives and improvement of cooperative attitudes among organic producers with support under the Rural Development Program / CAP Strategic Plan
3. Creating more favorable conditions for the development of the farms of very small, small and medium-sized enterprises/producers — improving the production environment, optimizing costs through new energy-saving machines, increasing mobile processing facilities (slaughterhouses, mills, copper mining equipment etc.) with support under the Rural Development Program / CAP Strategic Plan
4. Creating better conditions for access to markets by encouraging the creation of associations to organize, conduct, and participate in markets, exhibitions and fairs for organic products
5. Stimulating the consumption of organic products in kindergartens and schools through the implementation of market support schemes "School Fruit" and "School Milk"
6. Encouraging local processing of organic products by providing support for investment in enterprise modernization, including innovation, and the use of digital technologies

**AREA OF IMPACT 3 - IRRIGATED AGRICULTURE****OBJECTIVE: IMPROVING THE USE OF WATER RESOURCES IN AGRICULTURE****MEASURES:**

1. Implementation of investment projects for irrigation in agricultural holdings under sub-measure 4.1 "Investments in agricultural holdings" of the RDP 2014-2020 / intervention under the CAP Strategic Plan
2. Improving the management of water resources through investments in the national hydro-ameliorative fund under sub-measure 4.3 "Investments in infrastructure" under measure 4 "Investments in tangible assets" of the RDP 2014-2020 / intervention under the CAP Strategic Plan
3. Support for investments in agricultural holdings for efficient use of water in agricultural activities under the project "Fund for Promotion of Technological and Ecological Transition of Agriculture", RRP- "Investments related to efficient water management in agricultural holdings"

**AREA OF IMPACT 4 - FOREST RESOURCES MANAGEMENT****OBJECTIVE: IMPROVING AND PROTECTING THE HEALTH CONDITION OF FORESTS, CONTROLLING THE USE OF WOOD AND NON-WOOD PRODUCTS FROM FORESTS****MEASURES:**

1. Maintaining the health of forests:
  - Making a reliable forecast of expected disease and pest attacks
  - Timely issuance and implementation of guidelines for the implementation of sanitary and forest protection measures and activities
2. Increasing the investment and forestry care to restore the vulnerable and damaged forest areas:
  - Implementation of sub-measure 8.1 "Afforestation and maintenance" from the RDP 2014-2020 with the aim of increasing the area of forests, limiting erosion and preserving the quality of the lands, improving the water balance in the supported territories, increasing carbon absorption and improving the combat against climate change
  - Starting the work on logging for the transformation of 30,000 ha of coniferous crops and turning them into broad-leaved natural forests of local species within the framework of a submitted project under the National Plan for Recovery and Resilience
3. Maintaining sustainable forest ecosystems:
  - Transition from short-term-incremental to long-term-incremental fellings
  - Increasing the volume of thinning to improve the condition of young forests
  - Strengthening the control over the fellings, including those without material extraction
4. Establishment of a Unified system for monitoring, early detection and notification of forest fires to increase the capacity for prevention and control of forest fires by:
  - Implementation of the signed contracts under sub-measure 8.3 of the RDP 2014 - 2020 "Prevention of damage to forests by forest fires, natural disasters and catastrophic events" for the construction of 13 automatic monitoring stations.
  - Construction of 30 new automatic monitoring stations under an approved project under the National Recovery and Resilience Plan.
  - Implementation of activities for control, collection and reporting of information related to the use, sale and transportation of non-timber forest products, and introduction of the respective document forms
  - Preparation of analyzes related to the use, transportation and sale of round wood, including its import and export, with the aim of providing raw timber for wood processors and the local population
  - Achieving 100% fellings compared to planned fellings according to the forestry plans and programs
5. Increasing the investments of the state forest enterprises for the development of new and the maintenance of the existing forest road network
6. Continuation of the campaigns for the purchase of small forest properties from the state-owned enterprises
7. Creating relief for logging and wood processing businesses by:
  - Increasing the electronic sales of wood from the state-owned forest territories
  - Increasing the publicity and transparency in all timber sales
8. Raising public awareness of important forest-related issues
  - Implementation of an information campaign for awareness regarding the role of forestry in the protection of forest territories, nature in general and the rich Bulgarian biological diversity
  - Starting work on the implementation of activities for training the younger generation (54,000 children) in relation to forests, their protection and management (the so-called Forest pedagogy)

within a project of the National Recovery and Resilience Plan

9. Creation of conditions for active participation of the society and the interested parties in relation to forest activities:
  - Visualization of the forests in the existing information environment - update and expansion of the created geographic portal for forests
  - Ensuring levels of access to the developed system in order to ensure more active participation of the society and the institutions in terms of the control on the forest activities
  - Improving joint activity with non-governmental organizations
10. Increasing the effectiveness of prevention and combating illegal activities in forests:
  - Reviewing and, if necessary, updating the existing agreements for joint activities with the Ministry of Internal Affairs, EAFA, the National Revenue Agency, the Main Labor Inspectorate, the Road Infrastructure Agency, and other institutions for the control and prevention of illegal actions in the forest territories
  - Conducting an information campaign to introduce wood users to the legal requirements regarding the need to have and store the transport tickets for the purchased wood, as well as the ways to verify the authenticity of the submitted documents
  - Strengthening the control of incoming wood in large users
  - Planning specific actions with all interested institutions to effectively counter the crimes committed in the areas with a high concentration of crimes

**OBJECTIVE: UPDATE OF THE STRATEGIC DOCUMENTS AND THE CURRENT REGULATIONS IN FORESTS**

**MEASURES:**

1. Adoption of the National Strategy for the Development of the Forestry Sector in the Republic of Bulgaria 2021-2030
2. Update of the Strategic Plan for the Development of the Forestry Sector in the Republic of Bulgaria based on the new Strategy for the Development of the Forestry Sector in the Republic of Bulgaria until 2030.
3. Adoption of a National Plan for the Restoration of Traditional Forest Landscapes
4. Adoption of a National Program for Forest Pedagogy, aimed at increasing knowledge and changing the attitude of the young generation towards the protection of biological diversity, sustainable forest management, climate change
5. Development of Regional plans for the development of forest territories for the districts of Sliven and Yambol, as well as assigning the development of regional plans for the districts of Targovishte and Shumen
6. Preparation of amendments to the Forest Act
7. Changes in the by-laws (Ordinance No. 8 of 2011 on logging in forests, Ordinance No. 1 of 30.01.2012 on the control and protection of forest territories; Ordinance on the conditions and procedure for awarding the implementation of activities in forest territories - state and municipal property, and for the use of wood and non-wood forest products, Ordinance No. 18 on inventory and planning in forest territories, Organizational rules of the Forestry Executive Agency, etc)

**PRIORITY 5: HIGH LEVEL OF PROTECTION OF HUMAN HEALTH AND CONSUMER INTERESTS RELATING TO FOOD AND SUSTAINABLE DEVELOPMENT OF THE FOOD SECTOR**

**OBJECTIVE: IMPLEMENTING AN INTEGRATED APPROACH TO CONTROL THROUGHOUT THE FOOD CHAIN**

**MEASURES:**

1. Using high standards in the control of the field of food safety and quality, food additives and beverages, veterinary medicine and animal welfare, plant protection and fertilizers, phytosanitary control, feed, border control, etc.
2. Implementation of a consistent policy for cooperation with branch organizations in the country to develop standards that aim to increase the quality of basic food products
3. Implementation of systemic actions to limit the spread of genetically modified organisms throughout the food chain
4. Improving the quality of the services offered by the administration, by preparing information materials, introducing good practices, developing procedures, instructions and manuals, oriented to the authorities of official control and business, by introducing electronic registers
5. Continuous cooperation with the European Food Safety Authority, with all European Union structures pertaining to the activities related to food safety, plant and animal health, and the food safety authorities in EU Member States and third countries

**OBJECTIVE: LIMITING THE SPREAD AND ELIMINATING ECONOMICALLY IMPORTANT ANIMAL DISEASES TO GUARANTEE THEIR GOOD HEALTH STATUS AND THE SAFETY OF ANIMAL PRODUCTS PRODUCED**

**MEASURES:**

1. Implementation of the Plan to control and prevent the spread of the disease African swine fever in the Republic of Bulgaria for the period 2021-2023, with a view to limit the spread and economic losses from the disease, its gradual eradication, proving and acquiring the status of a disease-free country/region
2. Implementing a high level of control regarding the compliance with the requirements of the legislation and the implementation of the measures laid down in the National Program for the Prevention, Supervision, Control and Eradication of Animal Diseases and Zoonoses in Bulgaria 2022-2024

**PRIORITY 6: "FISHERIES AND AQUACULTURE MANAGEMENT"**

**AREA OF IMPACT 1 - "FISHERIES AND AQUATIC BIOLOGICAL RESOURCES":**

**OBJECTIVE: CONSERVATION AND RECOVERY OF FISHING RESOURCES AND AQUATIC ECOSYSTEMS**

**MEASURES:**

1. Providing and managing reliable biological, environmental, technical and socio-economic data for the Fisheries sector with financial support under the Maritime and Fisheries Program 2014-2020 and the Maritime, Fisheries and Aquaculture Program for the next programming period
2. Implementation of the Union control, inspection and enforcement system provided for in Article 36 of Regulation (EU) No. 1380/2013 on the Common Fisheries Policy through measure 3.1 "Control and enforcement" of the MFP
3. Preparation and launching of activities for adaptation of the fishing fleet capabilities to the fishing opportunities through financial support under Measure "Final cessation of fishing activities" of the MFAP
4. Preparation and launching of activities to modernize the fishing fleet (Measure "Temporary suspension

of fishing activities" of the MFAP)

5. Preparation and launching of activities to foster investment in new equipment and innovations, contributing to environmental protection and biodiversity through financial support under Measure "Specific equipment of fishing vessels, activities and innovations aimed at environmental protection and biodiversity" of the MFAP

## **AREA OF IMPACT 2 - COMPETITIVENESS OF THE FISHERIES AND AQUACULTURE INDUSTRY:**

### **OBJECTIVE: SUSTAINABLE DEVELOPMENT OF AQUACULTURE PRODUCTION AND PROCESSING OF ITS PRODUCTS**

#### **MEASURES:**

1. Preparation for implementation of activities to promote investment activity and introduction of innovations in the Aquaculture sub-sector through financial support under Measures "Productive investments in aquaculture" and "Innovations in aquaculture" under MFAP
2. Preparation for implementation of activities to promote investment activity and introduction of innovations in processing of fishery and aquaculture products through financial support under Measure "Processing of fishery and aquaculture products" from MFAP

## **AREA OF IMPACT 3 - BLUE ECONOMY AND FISHERIES COMMUNITIES**

### **OBJECTIVE: STRENGTHENING AND DEVELOPMENT OF COMMUNITIES IN COASTAL AND INLAND FISHERIES AND AQUACULTURE**

#### **MEASURES:**

1. Preparation for implementation of activities to promote the process of establishing local fishing action groups with financial support under Measure "Preliminary preparation of fisheries local action groups" of the MFAP
2. Preparation for implementation of activities to stimulate the participation of local communities in the sustainable development of coastal and inland fishing areas with financial support under Measure "Development of communities engaged in fisheries and aquaculture in coastal and inland areas" of the MFAP

## **PRIORITY 7: MOBILIZING THE POTENTIAL OF RURAL AREAS TO ACHIEVE BALANCED SOCIAL AND TERRITORIAL DEVELOPMENT**

### **AREA OF IMPACT 1 - COMMUNITY LED DEVELOPMENT:**

#### **OBJECTIVE: DIVERSIFICATION OF THE RURAL ECONOMY AND HIGH EMPLOYMENT OF THE LOCAL POPULATION**

##### **MEASURES:**

1. Implementation of integrated multisectoral strategies for local development, based on the characteristics of the specific territory and developed on the basis of local needs and potential
2. Preparation for implementation of a preparatory measure for development of CLLD strategies for the new programming period under the Strategic Plan for Agricultural and Rural Development

## **SCOPE 2 - INFRASTRUCTURE AND PUBLIC SERVICES IN RURAL AREAS:**

### **OBJECTIVE: IMPROVING THE QUALITY OF LIFE IN RURAL AREAS**

#### **MEASURE:**

1. Preparation of interventions under the Strategic Plan for Agriculture and Rural Development to support investments for construction and/or reconstruction of technical infrastructure, municipal road and street network, reconstruction and modernization of water supply and sewerage network and sewerage system, and other public infrastructure

A set of instruments for financial support with European and national funds will be implemented in 2023 to implement the measures and achieve the goals of the agricultural policy.

In terms of agriculture, the implementation of some of the measures financed under the General Agricultural Policy 2014-2020 (including the transition period 2020-2022) will continue and part of the interventions under the Strategic Plan for the Development of Agriculture and Rural Areas will be launched 2023-2027. Fisheries and Aquaculture Production Development will be supported under the 2014-2020 Maritime and Fisheries Program and the 2022-2029 Maritime, Fisheries and Aquaculture Program funded by the European Maritime, Fisheries and Aquaculture Fund.

Despite the limitations of the national budget, the sustainable development of agriculture will be promoted with a national resource - through schemes for transitional national aid, supplementing the support with European funds for direct support, and state aid.

The agricultural sector will be able to benefit from an additional financial resource from the National Plan for Recovery and Sustainability for investments in activities that ensure the protection of environmental components and mitigation of the consequences of climate change, the introduction of innovative production and digital technologies, the digitalization of processes in industry and communication between administration and business.

For 2023, funds in the amount of BGN 4,247.4 billion will be needed to support the agricultural sector, including:

- For direct payments - BGN 1,607.4 million
- For market measures - BGN 127.8 million
- For transitional national aid - BGN 126 million
- For state aid (including under tax relief schemes) - BGN 627 million
- For payments under measures under the RDP 2014-2020/interventions under the CAP Strategic Plan, financed by the EAFRD - BGN 1,435.6 million
- For implementation of measures in support of fisheries and aquaculture - BGN 51.3 million
- For activities under the NRRP - BGN 272.4 million.

## ANNEXES



## ANNEX 1

## GROSS AND FINAL PRODUCTS FROM THE AGRICULTURE SECTOR FOR 2021 (AT PRODUCER PRICES)

(million BGN)

		Current prices															
Code	Products	Gross output	Losses	Initial stocks	Used per unit			Processed by producers	Own consumption	Sales			Sales total	Production of goods from fixed capital at own expense	Closing stocks	Change in stocks	Final production
					Seeds and propagating material	Feed supplements	Other			In the country		abroad					
										in the sector	outside the sector						
a	b	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
01	Cereals	4,532.1	5.7	1,104.5	88.4	240.9	8.7	7.1	15.9	354.3	3,796.0	8.2	4,158.9		1,111.0	6.3	4,429.3
01.1	Wheat and spelt	2,847.0	2.9	450.2	78.3	81.0	4.5	0.7	10.3	223.2	2,301.9	7.6	2,532.7		586.8	136.6	2,761.3
01.1/1	Soft wheat	2,825.9	2.8	448.7	77.6	78.4	4.5	0.7	9.9	213.2	2,295.6	7.6	2,516.4		584.3	135.6	2,741.0
01.1/2	Durum wheat	21.1	0.1	1.5	0.7	2.6			0.4	10.0	6.3		16.3		2.5	1.0	20.3
01.2	Rye	5.9		0.8	0.3	1.2			0.4	0.1	3.2		3.3		1.5	0.7	5.6
01.3	Barley	240.9	0.2	19.9	6.4	23.6	0.1		1.2	14.7	192.3	0.3	207.4		21.9	2.0	234.2
01.4	Oat and cereal mixtures	8.9		4.3	0.5	3.9	0.1		0.2	0.8	4.8		5.6		2.9	-1.5	8.3
01.5	Corn for grain	1,363.5	2.6	583.7	1.8	125.2	0.7		2.6	113.9	1,236.3	0.3	1,350.7		463.6	-120.1	1,358.4
01.6	Rice	39.5		39.2	0.8			6.4			40.2		40.3		31.2	-8.0	38.7
01.7	Other cereals	26.4		6.4	0.3	6.0	3.3		1.2	1.6	17.3		18.9		3.1	-3.4	22.8
02	Industrial Crops	2,567.9	4.2	658.9	18.9	20.5	1.2	28.3	3.0	159.0	2,148.6	25.0	2,332.5		818.2	159.4	2,543.6
02.1	Oilseeds	2,330.5	2.2	567.6	14.7	9.7	0.8	2.8	1.7	152.6	1,934.3	19.9	2,106.8		759.4	191.9	2,312.8
02.1/1	Rapeseed	348.5	0.2	0.7	14.0	0.8			0.1	17.1	306.9		324.0		10.1	9.4	334.3
02.1/2	Sunflower	1,977.7	2.0	563.1	0.6	6.6	0.7	2.8	1.3	135.4	1,624.7	19.9	1,780.0		746.8	183.7	1,974.4
02.1/3	Soy	2.5		2.1		2.3				0.1	1.7		1.8		0.5	-1.5	2.5
02.1/4	Other oilseeds	1.8		1.7	0.1		0.1		0.3		1.0		1.0		2.0	0.3	1.6
02.2	Protein crops	30.3	0.5	38.8	4.1	10.8			0.3	4.8	38.2		43.0		10.4	-28.4	25.7
02.3	Tobacco	39.9		28.3						0.1	37.0		37.1		31.1	2.8	39.9
02.4	Sugar beet																
02.5	Other industrial crops	167.2	1.5	24.2	0.1		0.4	25.5	1.0	1.5	139.1	5.1	145.6		17.3	-6.9	165.2
02.5/1	Fiber-producing crops	1.4		0.5	0.1						0.9	0.4	1.3		0.5		1.3
02.5/2	Hops	1.0		1.2							2.2		2.2			-1.2	1.0
02.5/3	Other industrial crops	164.8	1.5	22.5			0.4	25.5	1.0	1.5	136.0	4.7	142.1		16.8	-5.7	162.9
03	Crops for feed	173.0	0.1	61.4		124.2	0.8	10.0	1.2	8.3	8.5		16.8		81.3	19.9	172.1
03.1	Corn for silage	51.6				34.3	0.3	9.2		3.1	4.7		7.8				51.3
03.2	Root feed	0.1				0.1											0.1
03.3	Other feed	121.3	0.1	61.4		89.8	0.5	0.8	1.2	5.2	3.8		9.0		81.3	19.9	120.7
04	Vegetables	377.5		17.3			0.1	0.7	0.9	19.7	366.0	3.1	388.7		4.4	-12.9	377.4
04.1	Fresh vegetables	347.2		8.1			0.1	0.7	0.9	12.6	338.3		350.8		2.8	-5.3	347.1
04.1/2	Tomatoes	109.5						0.1		3.6	105.8		109.4				109.5
04.1/3	Other fresh vegetables	237.7		8.1			0.1	0.6	0.9	9.0	232.5		241.4		2.8	-5.3	237.6
04.2	Flowers	30.3		9.2						7.1	27.7	3.1	37.9		1.6	-7.6	30.3
04.2/1	Plant nurseries	9.5		3.6						1.0	8.6	2.8	12.4		0.7	-2.9	9.5
04.2/2	Decorative plants, including Christmas trees	20.8		5.6						6.1	19.1	0.3	25.5		0.9	-4.7	20.8
04.2/3	Creation and cultivation																
05	Potatoes	74.5	0.3	19.1	2.3	0.2			0.7	5.5	68.2		73.7		16.4	-2.7	71.9
06	Fruit	324.9	0.1	10.5				9.4	0.7	16.7	288.8	7.6	312.9		12.3	1.9	324.8
06.1	Fresh fruit	212.8	0.1	10.5				2.9	0.7	15.4	185.3	6.8	207.3		12.3	1.9	212.7
06.1/1	Apples	24.2		3.1				0.2		1.9	20.0		21.9		5.2	2.1	24.2
06.1/2	Pears	2.5									2.5		2.5				2.5
06.1/3	Peaches	20.9								0.1	15.8	5.1	20.9				20.9
06.1/4	Other fresh fruits	165.2	0.1	7.4				2.7	0.7	13.4	147.0	1.7	162.0		7.1	-0.2	165.1
06.4	Grapes, total	112.1						6.5		1.3	103.5	0.8	105.6				112.1
06.4/1	Dessert grapes	13.4								0.1	12.4	0.8	13.4				13.4
06.4/2	Other grape	98.7						6.5		1.2	91.1		92.2				98.7
07	Wine																
07.1	Table wine																
09	Other crops	38.7	1.2	27.1	1.7	2.0	1.4		0.7	2.1	38.9		41.0		17.8	-9.3	34.4
09.2	Seeds	38.7	1.2	27.1	1.7	2.0	1.4		0.7	2.1	38.9		41.0		17.8	-9.3	34.4
09.3	Other plant products																
10	Crop production (from 01 to 09)	8,088.6	11.6	1,898.8	111.3	387.8	12.2	55.5	23.1	565.6	6,715.0	43.9	7,324.5		2,061.4	162.6	7,953.5
11	Livestock	891.6	0.1	268.8				31.5			684.8		684.8	141.7	302.3	33.5	891.5
11.1	Cattle	173.5		175.8				0.5			35.7		35.7	119.7	193.4	17.6	173.5
11.2	Pigs	287.2		24.6				18.6			256.8		256.8	7.6	28.8	4.3	287.2

Code	Products	Current prices															
		Gross output	Losses	Initial stocks	Used per unit			Processed by producers	Own consumption	Sales			Sales total	Production of goods from fixed capital at own expense	Closing stocks	Change in stocks	Final production
										In the country		abroad					
					Seeds and propagating material	Feed supplements	Other			in the sector	outside the sector						
a	b	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
11.3	Horses																
11.4	Sheep and goats	137.4	0.1	31.5				0.4			114.1		114.1	14.4	39.9	8.4	137.3
11.5	Poultry	293.5		36.9				12.0			278.2		278.2		40.2	3.2	293.5
11.6	Other animals																
12	Livestock products	1,046.9		99.5		44.7	69.7	11.0	52.4	79.0	783.7		862.7		105.9	6.4	932.5
12.1	Milk	706.9				41.2		10.5	19.9	28.5	606.8		635.3				665.7
12.2	Eggs	227.8		3.0		0.1	45.8	0.5	22.3	35.0	124.3		159.3		2.8	-0.2	181.9
12.3	Other livestock products	112.2		96.5		3.4	23.9		10.2	15.5	52.6		68.1		103.1	6.6	84.9
12.3/1	Unwashed wool	1.6									1.5		1.6				1.6
12.3/2	Silk cocoons																
12.3/3	Other livestock products	110.6		96.5		3.4	23.9		10.2	15.5	51.1		66.5		103.1	6.6	83.3
13	Livestock products (11 + 12)	1,938.5	0.1	368.3		44.7	69.7	42.5	52.4	79.0	1,468.5		1,547.5	141.7	408.2	39.9	1,824.0
14	Production of agricultural goods (10 + 13)	10,027.1	11.7	2,267.1	111.3	432.5	81.9	98.0	75.5	644.6	8,183.5	43.9	8,872.0	141.7	2,469.6	202.5	9,777.5
15	Production of agricultural services	546.3									546.3		546.3				546.3
16	Production from agriculture (14 + 15)	10,573.4	11.7	2,267.1	111.3	432.5	81.9	98.0	75.5	644.6	8,729.8	43.9	9,418.3	141.7	2,469.6	202.5	10,323.8
17	Non-agricultural inseparable secondary activities	202.3							202.3								202.3
17.1	Investments for processing of agricultural products	202.3							202.3								202.3
17.1/1	- cereals	66.8							66.8								66.8
17.1/2	- vegetables	27.2							27.2								27.2
17.1/3	- fruit	14.5							14.5								14.5
17.1/4	- wine	35.2							35.2								35.2
17.1/5	- animals	42.3							42.3								42.3
17.1/6	- animal products	9.0							9.0								9.0
17.1/6/1	- milk	9.0							9.0								9.0
17.1/7	- other	7.3							7.3								7.3
17.2	Other inseparable secondary activities																
18	Production from the Agriculture sector (16+17)	10,775.7	11.7	2,267.1	111.3	432.5	81.9	98.0	277.8	644.6	8,729.8	43.9	9,418.3	141.7	2,469.6	202.5	10,526.1

Source: NSI

**ANNEX 2**
**VALUE OF GROSS PRODUCTION AND GROSS ADDED VALUE FROM AGRICULTURE (AT PRODUCER PRICES) FOR THE PERIOD 2019-2021**

(million BGN)

Code	Products	2019	Coefficient of variation	2020	Coefficient of variation	2021
a	b	1	2	3	4	5
01	Cereals	3,145.4	-14.6	2,685.9	68.7	4,532.1
01.1	Wheat and spelt	1,830.4	-15.4	1,549.0	83.8	2,847.0
01.1/1	Soft wheat	1,817.0	-15.3	1,538.7	83.7	2,825.9
01.1/2	Durum wheat	13.4	-23.1	10.3	104.9	21.1
01.2	Rye	3.4	-5.9	3.2	84.4	5.9
01.3	Barley	157.3	0.3	157.8	52.7	240.9
01.4	Oat and cereal mixtures	9.7	-1.0	9.6	-7.3	8.9
01.5	Corn for grain	1,082.0	-17.1	896.7	52.1	1,363.5
01.6	Rice	41.3	15.3	47.6	-17.0	39.5
01.7	Other cereals	21.3	3.3	22.0	20.0	26.4
02	Industrial Crops	1,651.6	-0.6	1,641.3	56.5	2,567.9
02.1	Oilseeds	1,415.9	2.3	1,448.6	60.9	2,330.5
02.1/1	Rapeseed	287.8	-32.6	194.0	79.6	348.5
02.1/2	Sunflower	1,122.0	11.3	1,248.7	58.4	1,977.7
02.1/3	Soy	4.1	0.0	4.1	-39.0	2.5
02.1/4	Other oilseeds	2.0	-10.0	1.8	0.0	1.8
02.2	Protein crops	37.8	-47.9	19.7	53.8	30.3
02.3	Tobacco	32.5	-33.5	21.6	84.7	39.9
02.4	Sugar beet	-	-	-	-	-
02.5	Other industrial crops	165.4	-8.5	151.4	10.4	167.2
02.5/1	Fiber-producing crops	2.1	-23.8	1.6	-12.5	1.4
02.5/2	Hops	0.5	0.0	0.5	100.0	1.0
02.5/3	Other industrial crops	162.8	-8.3	149.3	10.4	164.8
03	Crops for feed	146.4	-9.8	132.1	31.0	173.0
03.1	Corn for silage	36.7	35.4	49.7	3.8	51.6
03.2	Root feed	-	-	-	-	-
03.3	Other feed	109.7	-24.9	82.4	47.2	121.3
04	Vegetables	389.4	-11.9	342.9	10.1	377.5
04.1	Fresh vegetables	362.3	-13.2	314.3	10.5	347.2
04.1/2	Tomatoes	106.4	-12.0	93.6	17.0	109.5
04.1/3	Other fresh vegetables	255.9	-13.8	220.7	7.7	237.7
04.2	Flowers	27.1	5.5	28.6	5.9	30.3
04.2/1	Plant nurseries	9.6	-1.0	9.5	0.0	9.5
04.2/2	Decorative plants, including Christmas trees	17.5	9.1	19.1	8.9	20.8
04.2/3	Creation and cultivation	-	-	-	-	-
05	Potatoes	91.2	-16.4	76.2	-2.2	74.5
06	Fruit	294.4	-0.5	292.9	10.9	324.9
06.1	Fresh fruit	199.9	-3.9	192.1	10.8	212.8
06.1/1	Apples	21.9	-4.6	20.9	15.8	24.2
06.1/2	Pears	4.3	-48.8	2.2	13.6	2.5

Code	Products	2019	Coefficient of variation	2020	Coefficient of variation	2021
a	b	1	2	3	4	5
06.1/3	Peaches	17.3	-20.2	13.8	51.4	20.9
06.1/4	Other fresh fruits	156.4	-0.8	155.2	6.4	165.2
06.4	Grapes, total	94.5	6.7	100.8	11.2	112.1
06.4/1	Dessert grapes	8.8	20.5	10.6	26.4	13.4
06.4/2	Other grape	85.7	5.3	90.2	9.4	98.7
07	Wine	-	-	-	-	-
07.1	Table wine	-	-	-	-	-
09	Other crops	42.5	-3.3	41.1	-5.8	38.7
09.2	Seeds	40.0	2.8	41.1	-5.8	38.7
09.3	Other plant products	2.5	-	-	-	-
<b>10</b>	<b>Crop production (from 01 to 09)</b>	<b>5,760.9</b>	<b>-9.5</b>	<b>5,212.4</b>	<b>55.2</b>	<b>8,088.6</b>
11	Livestock	872.8	4.3	910.7	-2.1	891.6
11.1	Cattle	144.6	13.3	163.9	5.9	173.5
11.2	Pigs	304.0	5.1	319.5	-10.1	287.2
11.3	Horses	-	-	-	-	-
11.4	Sheep and goats	143.5	3.1	148.0	-7.2	137.4
11.5	Poultry	280.7	-0.5	279.3	5.1	293.5
11.6	Other animals	-	-	-	-	-
12	Livestock products	994.3	1.5	1,008.8	3.8	1,046.9
12.1	Milk	665.7	5.6	702.7	0.6	706.9
12.2	Eggs	226.4	-4.0	217.3	4.8	227.8
12.3	Other livestock products	102.2	-13.1	88.8	26.4	112.2
12.3/1	Unwashed wool	3.0	-63.3	1.1	45.5	1.6
12.3/2	Silk cocoons	-	-	-	-	-
12.3/3	Other livestock products	99.2	-11.6	87.7	26.1	110.6
<b>13</b>	<b>Livestock products (11 + 12)</b>	<b>1,867.1</b>	<b>2.8</b>	<b>1,919.5</b>	<b>1.0</b>	<b>1,938.5</b>
<b>14</b>	<b>Production of agricultural goods (10 + 13)</b>	<b>7,628.0</b>	<b>-6.5</b>	<b>7,131.9</b>	<b>40.6</b>	<b>10,027.1</b>
<b>15</b>	<b>Production of agricultural services</b>	<b>492.2</b>	<b>-6.1</b>	<b>462.0</b>	<b>18.2</b>	<b>546.3</b>
<b>16</b>	<b>Production from agriculture (14 + 15)</b>	<b>8,120.2</b>	<b>-6.5</b>	<b>7,593.9</b>	<b>39.2</b>	<b>10,573.4</b>
<b>17</b>	<b>Non-agricultural inseparable secondary activities</b>	<b>198.9</b>	<b>2.6</b>	<b>204.1</b>	<b>-0.9</b>	<b>202.3</b>
17.1	Investments for processing of agricultural products	198.9	2.6	204.1	-0.9	202.3
17.1/1	- cereals	62.0	2.1	63.3	5.5	66.8
17.1/2	- vegetables	24.9	4.8	26.1	4.2	27.2
17.1/3	- fruit	13.3	5.3	14.0	3.6	14.5
17.1/4	- wine	33.1	3.6	34.3	2.6	35.2
17.1/5	- animals	44.0	20.0	52.8	-19.9	42.3
17.1/6	- animal products	14.9	-55.7	6.6	36.4	9.0
17.1/6/1	- milk	14.9	-55.7	6.6	36.4	9.0
17.1/7	- other	6.7	4.5	7.0	4.3	7.3
17.2	Other inseparable secondary activities	-	-	-	-	-
<b>18</b>	<b>Production from the Agriculture sector (16+17)</b>	<b>8,319.1</b>	<b>-6.3</b>	<b>7,798.0</b>	<b>38.2</b>	<b>10,775.7</b>
<b>19</b>	<b>Intermediate consumption</b>	<b>5,126.3</b>	<b>-9.3</b>	<b>4,647.6</b>	<b>26.1</b>	<b>5,862.3</b>

Code	Products	2019	Coefficient of variation	2020	Coefficient of variation	2021
a	b	1	2	3	4	5
	Losses	9.5	33.7	12.7	-8.7	11.6
19.01	Seeds and propagating material	401.6	-27.1	292.8	22.0	357.2
19.01/1	supplied by other agricultural holdings	28.2	14.5	32.3	19.5	38.6
19.01/2	purchased outside the sector	176.6	4.3	184.2	12.5	207.3
	produced and consumed on the farm itself	196.8	-61.2	76.3	45.9	111.3
19.02	Fuels and oils	1,062.8	-14.6	907.5	31.3	1,191.1
19.02/1	- electricity	84.1	-27.1	61.3	69.7	104.0
19.02/2	- gas	26.5	-3.4	25.6	54.3	39.5
19.02/3	- other fuels	948.5	-13.9	817.1	27.6	1,042.4
19.02/4	- others	3.7	-5.4	3.5	48.6	5.2
19.03	Fertilizers and soil improvers	469.5	-3.1	455.0	63.0	741.6
19.03/1	supplied by other agricultural holdings	7.7	-3.9	7.4	66.2	12.3
19.03/2	purchased outside the sector	461.8	-3.1	447.6	62.9	729.3
	produced and consumed on the farm itself	-	-	-	-	-
19.04	Plant protection products and pesticides	333.6	-4.2	319.7	14.8	366.9
19.05	Veterinary costs	260.3	-3.3	251.7	-0.4	250.7
19.06	Feed supplements	1,003.5	-8.5	918.4	29.6	1,190.7
19.06/1	supplied by other agricultural holdings	291.8	-3.3	282.1	35.8	383.0
19.06/2	purchased outside the sector	494.1	-11.6	436.6	-3.8	419.9
19.06/3	produced and consumed on the farm itself	217.6	-8.2	199.7	94.2	387.8
	Feed supplements, not included in EAA	43.6	-1.8	42.8	4.4	44.7
19.07	Maintenance and repair of machinery and small inventory	329.0	2.8	338.1	15.8	391.6
19.08	Building maintenance	161.3	-9.5	146.0	20.3	175.6
19.09	Agricultural services	492.2	-6.1	462.0	18.2	546.3
19.10	FISIM	80.3	-7.3	74.4	-6.6	69.5
19.11	Other goods and services	479.1	-11.0	426.5	23.0	524.8
	supplied by other agricultural holdings	79.1	15.0	91.0	33.5	121.5
	purchased outside the sector	301.0	-11.5	266.3	20.7	321.4
	produced and consumed on the farm itself	99.0	-30.1	69.2	18.4	81.9
<b>20</b>	<b>Gross value added at producer prices (18-19)</b>	<b>3,192.8</b>	<b>-1.3</b>	<b>3,150.4</b>	<b>56.0</b>	<b>4,913.4</b>

Source: NSI

**ANNEX 3**
**INTERMEDIATE CONSUMPTION, FACTOR EXPENDITURE, OTHER SUBSIDIES AND TAXES FOR 2021**

(million BGN)

Elements of intermediate consumption	To create gross output at producer prices	To create the final production at basic prices	Produced and consumed on the farm itself	Purchase of goods and services for intermediate consumption	
				from other agricultural units	from units outside the industry
a	1	2	3	4	5
Losses	11.6		11.6		
Seeds and propagating material	357.2	245.9	111.3	38.6	207.3
Fuels and oils	1,191.1	1,191.1			1,191.1
- electricity	104.0	104.0			104.0
- gas	39.5	39.5			39.5
- other fuels	1,042.4	1,042.4			1,042.4
- others	5.2	5.2			5.2
Fertilizers and soil improvers	741.6	741.6		12.3	729.3
Plant protection products and pesticides	366.9	366.9			366.9
Veterinary costs	250.7	250.7			250.7
Feed supplements	1,190.7	1,190.7	387.8	383.0	419.9
Feed supplements, not included in EAA	44.7		44.7		
Maintenance and repair	567.2	567.2			567.2
- maintenance and repair of machines and small inventory	391.6	391.6			391.6
- maintenance of buildings	175.6	175.6			175.6
Agricultural services	546.3	546.3			546.3
FISIM	69.5	69.5			69.5
Other goods and services	524.8	442.9	81.9	121.5	321.4
<b>Intermediate consumption</b>	<b>5,862.3</b>	<b>5,612.8</b>	<b>637.3</b>	<b>555.5</b>	<b>4,669.5</b>
<b>Use of fixed capital</b>	<b>981.7</b>	<b>981.7</b>			<b>981.7</b>
- equipment	784.8	784.8			784.8
- buildings	90.4	90.4			90.4
- creation and cultivation	21.9	21.9			21.9
- others	84.6	84.6			84.6
<b>Compensation of employees</b>	<b>1,174.4</b>	<b>1,174.4</b>			<b>1,174.4</b>
<b>Other taxes on production</b>	<b>22.1</b>	<b>22.1</b>			<b>22.1</b>
<b>Other subsidies on production</b>	<b>1,950.3</b>	<b>1,950.3</b>			<b>1,950.3</b>
<b>Rent</b>	<b>1,624.0</b>	<b>1,624.0</b>			<b>1,624.0</b>
<b>Interest paid</b>	<b>78.6</b>	<b>78.6</b>			<b>78.6</b>
<b>Interest received</b>	<b>27.9</b>	<b>27.9</b>			<b>27.9</b>

Source: NSI

## ANNEX 4

## VALUE OF FINAL PRODUCTION, GROSS VALUE ADDED AND ENTREPRENEURIAL INCOME IN AGRICULTURE (AT CURRENT BASIS PRICES) FOR THE PERIOD 2019 - 2021

(million BGN)

Code	Products	2019	Coefficient of variation	2020	Coefficient of variation	2021
a	b	1	2	3	4	5
01	Cereals	2,933.3	-11.1	2,608.5	69.8	4,429.3
01.1	Wheat and spelt	1,679.4	-11.6	1,484.1	86.1	2,761.3
01.1/1	Soft wheat	1,666.3	-11.5	1,474.6	85.9	2,741.0
01.1/2	Durum wheat	13.1	-27.5	9.5	113.7	20.3
01.2	Rye	3.3	-6.1	3.1	80.6	5.6
01.3	Barley	151.5	0.3	152.0	54.1	234.2
01.4	Oat and cereal mixtures	9.2	-6.5	8.6	-3.5	8.3
01.5	Corn for grain	1,029.5	-13.2	893.7	52.0	1,358.4
01.6	Rice	39.5	17.0	46.2	-16.2	38.7
01.7	Other cereals	20.9	-0.5	20.8	9.6	22.8
02	Industrial Crops	1,675.8	-0.5	1,667.0	54.7	2,578.2
02.1	Oilseeds	1,411.4	2.3	1,444.0	60.2	2,312.8
02.1/1	Rapeseed	287.3	-32.6	193.5	72.8	334.3
02.1/2	Sunflower	1,118.1	11.3	1,244.7	58.6	1,974.4
02.1/3	Soy	4.0		4.0	-37.5	2.5
02.1/4	Other oilseeds	2.0	-10.0	1.8	-11.1	1.6
02.2	Protein crops	64.1	-26.5	47.1	20.0	56.5
02.3	Tobacco	32.4	-33.3	21.6	84.7	39.9
02.4	Sugar beet	-	-	-	-	-
02.5	Other industrial crops	167.9	-8.1	154.3	9.5	169.0
02.5/1	Fiber-producing crops	7.1	-22.5	5.5	-7.3	5.1
02.5/2	Hops	0.5		0.5	100.0	1.0
02.5/3	Other industrial crops	160.3	-7.5	148.3	9.8	162.9
03	Crops for feed	143.3	-8.4	131.2	31.2	172.1
03.1	Corn for silage	36.1	37.4	49.6	3.4	51.3
03.2	Root feed	-	-	-	-	0.1
03.3	Other feed	107.2	-23.9	81.6	47.9	120.7
04	Vegetables	426.2	-9.5	385.8	5.1	405.4
04.1	Fresh vegetables	399.2	-10.5	357.3	5.0	375.1
04.1/2	Tomatoes	106.4	-12.0	93.6	20.4	112.7
04.1/3	Other fresh vegetables	292.8	-9.9	263.7	-0.5	262.4
04.2	Flowers	27.0	5.6	28.5	6.3	30.3
04.2/1	Plant nurseries	9.5	-1.1	9.4	1.1	9.5
04.2/2	Ornamental plants, incl. Christmas trees	17.5	9.1	19.1	8.9	20.8
04.2/3	Creation and cultivation	-	-	-	-	-
05	Potatoes	86.0	-15.0	73.1	15.5	84.4
06	Fruit	333.6	0.2	334.3	8.0	361.2
06.1	Fresh fruit	239.1	-2.3	233.5	6.2	247.9
06.1/1	Apples	21.5	-2.8	20.9	35.9	28.4
06.1/2	Pears	4.3	-48.8	2.2	40.9	3.1
06.1/3	Peaches	17.3	-20.2	13.8	79.0	24.7
06.1/4	Other fresh fruits	196.0	0.3	196.6	-2.5	191.7
06.4	Grapes, total	94.5	6.7	100.8	12.4	113.3
06.4/1	Dessert grapes	8.8	20.5	10.6	37.7	14.6
06.4/2	Other grape	85.7	5.3	90.2	9.4	98.7
07	Wine	-	-	-	-	-
07.1	Table wine	-	-	-	-	-
09	Other crops	35.4	7.6	38.1	-9.7	34.4
09.2	Seeds	32.9	15.8	38.1	-9.7	34.4

Code	Products	2019	Coefficient of variation	2020	Coefficient of variation	2021
a	b	1	2	3	4	5
09.3	Other plant products	2.5	-	-	-	-
<b>10</b>	<b>Crop production</b>	<b>5,633.6</b>	<b>-7.0</b>	<b>5,238.0</b>	<b>54.0</b>	<b>8,065.0</b>
11	Livestock	963.2	2.6	988.3	-2.2	966.1
11.1	Cattle	167.0	13.2	189.0	5.2	198.8
11.2	Pigs	304.0	5.1	319.5	-10.1	287.2
11.3	Horses	-	-	-	-	-
11.4	Sheep and goats	211.5	-5.2	200.5	-6.9	186.6
11.5	Poultry	280.7	-0.5	279.3	5.1	293.5
11.6	Other animals	-	-	-	-	-
12	Livestock products	946.9	2.8	973.8	2.3	996.5
12.1	Milk	687.0	6.8	733.6	-0.5	729.7
12.2	Eggs	181.9	-2.9	176.7	2.9	181.9
12.3	Other livestock products	78.0	-18.6	63.5	33.7	84.9
12.3/1	Unwashed wool	2.9	-62.1	1.1	45.5	1.6
12.3/2	Silk cocoons	-	-	-	-	-
12.3/3	Other livestock products	75.1	-16.9	62.4	33.5	83.3
<b>13</b>	<b>Livestock products (11 + 12)</b>	<b>1,910.1</b>	<b>2.7</b>	<b>1,962.1</b>	<b>0.0</b>	<b>1,962.6</b>
<b>14</b>	<b>Production of agricultural goods (10 + 13)</b>	<b>7,543.7</b>	<b>-4.6</b>	<b>7,200.1</b>	<b>39.3</b>	<b>10,027.6</b>
<b>15</b>	<b>Production of agricultural services</b>	<b>492.2</b>	<b>-6.1</b>	<b>462.0</b>	<b>18.2</b>	<b>546.3</b>
<b>16</b>	<b>Production from agriculture (14 + 15)</b>	<b>8,035.9</b>	<b>-4.7</b>	<b>7,662.1</b>	<b>38.0</b>	<b>10,573.9</b>
<b>17</b>	<b>Non-agricultural inseparable secondary activities</b>	<b>198.9</b>	<b>2.6</b>	<b>204.0</b>	<b>-0.8</b>	<b>202.3</b>
17.1	Investments for processing of agricultural products	198.9	2.6	204.0	-0.8	202.3
17.1/1	- cereals	62.0	2.1	63.3	5.5	66.8
17.1/2	- vegetables	24.9	4.8	26.1	4.2	27.2
17.1/3	- fruit	13.3	5.3	14.0	3.6	14.5
17.1/4	- wine	33.1	3.6	34.3	2.6	35.2
17.1/5	- animals	44.0	20.0	52.8	-19.9	42.3
17.1/6	- animal products	14.9	-55.7	6.6	36.4	9.0
17.1/6/1	- milk	14.9	-55.7	6.6	36.4	9.0
17.1/7	- other	6.7	3.0	6.9	5.8	7.3
17.2	Other inseparable secondary activities	-	-	-	-	-
<b>18</b>	<b>Production from Agriculture sector (16+17)</b>	<b>8,234.8</b>	<b>-4.5</b>	<b>7,866.1</b>	<b>37.0</b>	<b>10,776.2</b>
<b>19</b>	<b>Intermediate consumption</b>	<b>4,777.4</b>	<b>-6.9</b>	<b>4,446.6</b>	<b>26.2</b>	<b>5,612.8</b>
19.01	Seeds and propagating material	204.8	5.7	216.5	13.6	245.9
19.01/1	supplied by other agricultural holdings	28.2	14.5	32.3	19.5	38.6
19.01/2	purchased outside the sector	176.6	4.3	184.2	12.5	207.3
19.02	Fuels and oils	1,062.8	-14.6	907.5	31.3	1,191.1
19.02/1	- electricity	84.1	-27.1	61.3	69.7	104.0
19.02/2	- gas	26.5	-3.4	25.6	54.3	39.5
19.02/3	- other fuels	948.5	-13.9	817.1	27.6	1,042.4
19.02/4	- others	3.7	-5.4	3.5	48.6	5.2
19.03	Fertilizers and soil improvers	469.5	-3.1	455.0	63.0	741.6
19.03/1	supplied by other agricultural holdings	7.7	-3.9	7.4	66.2	12.3
19.03/2	purchased outside the sector	461.8	-3.1	447.6	62.9	729.3
19.04	Plant protection products and pesticides	333.6	-4.2	319.7	14.8	366.9
19.05	Veterinary costs	260.3	-3.3	251.7	-0.4	250.7
19.06	Feed supplements	1,003.5	-8.5	918.4	29.6	1,190.7
19.06/1	supplied by other agricultural holdings	291.8	-3.3	282.1	35.8	383.0
19.06/2	purchased outside the sector	494.1	-11.6	436.6	-3.8	419.9
19.06/3	Produced and consumed on the farm itself	217.6	-8.2	199.7	94.2	387.8
19.07	Maintenance and repair of machinery and small inventory	329.0	2.8	338.1	15.8	391.6
19.08	Building maintenance	161.3	-9.5	146.0	20.3	175.6
19.09	Agricultural services	492.2	-6.1	462.0	18.2	546.3



Code	Products	2019	Coefficient of variation	2020	Coefficient of variation	2021
a	b	1	2	3	4	5
19.10	FISIM	80.3	-7.3	74.4	-6.6	69.5
19.11	Other goods and services	380.1	-6.0	357.3	24.0	442.9
	supplied by other agricultural holdings	79.1	15.0	91.0	33.5	121.5
	purchased outside the sector	301.0	-11.5	266.3	20.7	321.4
<b>20</b>	<b>GROSS VALUE ADDED AT BASIC PRICES (18-19)</b>	<b>3,457.4</b>	<b>-1.1</b>	<b>3,419.5</b>	<b>51.0</b>	<b>5,163.4</b>
21	Use of fixed capital	910.5	1.5	923.8	6.3	981.7
21.1	- equipment	732.8	2.2	749.1	4.8	784.8
21.2	- buildings	80.9	0.7	81.5	10.9	90.4
21.3	- creation and cultivation	22.5	-9.8	20.3	7.9	21.9
21.4	- other	74.3	-1.9	72.9	16.0	84.6
<b>22</b>	<b>GROSS VALUE ADDED AT BASIC PRICES (20-21)</b>	<b>2,546.9</b>	<b>-2.0</b>	<b>2,495.7</b>	<b>67.6</b>	<b>4,181.7</b>
23	Compensation of employees	1,065.5	4.0	1,107.9	6.0	1,174.4
24	Other taxes on production	12.9	21.7	15.7	40.8	22.1
25	Other subsidies on production	2,220.3	3.3	2,294.1	-15.0	1,950.3
<b>26</b>	<b>Income by factors (22 - 24 + 25)</b>	<b>4,754.3</b>	<b>0.4</b>	<b>4,774.1</b>	<b>28.0</b>	<b>6,109.9</b>
<b>27</b>	<b>Operating surplus / Mixed income (22 - 23 + 25)</b>	<b>3,688.8</b>	<b>-0.6</b>	<b>3,666.2</b>	<b>34.6</b>	<b>4,935.5</b>
28	Rent	1,166.3	4.0	1,212.9	33.9	1,624.0
29	Interest paid	73.3	-13.2	63.6	23.6	78.6
30	Interest received	28.0	-13.6	24.2	15.3	27.9
<b>31</b>	<b>Entrepreneurial income (27 - 28 - 29 + 30)</b>	<b>2,477.2</b>	<b>-2.6</b>	<b>2,413.9</b>	<b>35.1</b>	<b>3,260.8</b>

Source: NSI

**ANNEX 5**
**FINAL PRODUCTS AND GROSS VALUE ADDED (AT BASIC PRICES) - 2020 - 2021 - AMOUNT AND INDICES OF THE CHANGE - 2021  
COMPARED TO 2020**

Code	Products	Current value for 2020 - BGN million	Volume index (previous year = 100)	Value for 2021 at previous year's prices - BGN million	Price index (previous year = 100)	Current value for 2021 - BGN million	Index of change in current value (2020 = 100)
<b>01</b>	<b>CEREALS</b>	<b>2,608.5</b>	<b>136.2</b>	<b>3,553.5</b>	<b>124.6</b>	<b>4,429.3</b>	<b>169.8</b>
01.1	Wheat and spelt	1,484.1	153.0	2,271.0	121.6	2,761.3	186.1
01.1/1	Soft wheat	1,474.6	152.8	2,253.9	121.6	2,741.0	185.9
01.1/2	Durum wheat	9.5	180.0	17.1	118.7	20.3	213.7
01.2	Rye	3.1	164.5	5.1	109.8	5.6	180.6
01.3	Barley	152.0	126.3	192.0	122.0	234.2	154.1
01.4	Oat and cereal mixtures	8.6	81.4	7.0	118.6	8.3	96.5
01.5	Corn for grain	893.7	114.0	1,019.2	133.3	1,358.4	152.0
01.6	Rice	46.2	85.1	39.3	98.5	38.7	83.8
01.7	Other cereals	20.8	95.7	19.9	114.6	22.8	109.6
<b>02</b>	<b>INDUSTRIAL CROPS</b>	<b>1,667.0</b>	<b>117.9</b>	<b>1,966.0</b>	<b>131.1</b>	<b>2,578.2</b>	<b>154.7</b>
02.1	Oilseeds	1,444.0	117.3	1,693.2	136.6	2,312.8	160.2
02.1/1	Rapeseed	193.5	131.6	254.6	131.3	334.3	172.8
02.1/2	Sunflower	1,244.7	115.3	1,435.0	137.6	1,974.4	158.6
02.1/3	Soy	4.0	45.0	1.8	138.9	2.5	62.5
02.1/4	Other oilseeds	1.8	100.0	1.8	88.9	1.6	88.9
02.2	Protein crops	47.1	126.3	59.5	95.0	56.5	120.0
02.3	Tobacco	21.6	121.3	26.2	152.3	39.9	184.7
02.4	Sugar beet						
02.5	Other industrial crops	154.3	121.3	187.1	90.3	169.0	109.5
02.5/1	Fiber-producing crops	5.5	61.8	3.4	150.0	5.1	92.7
02.5/2	Hops	0.5	180.0	0.9	111.1	1.0	200.0
02.5/3	Other industrial crops	148.3	123.3	182.8	89.1	162.9	109.8
<b>03</b>	<b>FEED CROPS</b>	<b>131.2</b>	<b>124.4</b>	<b>163.2</b>	<b>105.5</b>	<b>172.1</b>	<b>131.2</b>
03.1	Corn for silage	49.6	92.9	46.1	111.3	51.3	103.4
03.2	Root feed	0.0		0.1	100.0	0.1	
03.3	Other feed	81.6	143.4	117.0	103.2	120.7	147.9
<b>04</b>	<b>VEGETABLES</b>	<b>385.8</b>	<b>110.2</b>	<b>425.1</b>	<b>95.4</b>	<b>405.4</b>	<b>105.1</b>
04.1	Fresh vegetables	357.3	110.9	396.4	94.6	375.1	105.0
04.1/2	Tomatoes	93.6	105.1	98.4	114.5	112.7	120.4
04.1/3	Other fresh vegetables	263.7	113.0	298.0	88.1	262.4	99.5
04.2	Flowers and plant nurseries	28.5	100.7	28.7	105.6	30.3	106.3
04.2/1	Plant nurseries	9.4	95.7	9.0	105.6	9.5	101.1
04.2/2	Decorative plants, including Christmas trees	19.1	103.1	19.7	105.6	20.8	108.9
04.2/3	Creation and cultivation						
<b>05</b>	<b>POTATOES</b>	<b>73.1</b>	<b>105.2</b>	<b>76.9</b>	<b>109.8</b>	<b>84.4</b>	<b>115.5</b>
<b>06</b>	<b>FRUITS</b>	<b>334.3</b>	<b>112.0</b>	<b>374.3</b>	<b>96.5</b>	<b>361.2</b>	<b>108.0</b>
06.1	Fresh fruit	233.5	111.8	261.0	95.0	247.9	106.2
06.1/1	Apples	20.9	116.7	24.4	116.4	28.4	135.9
06.1/2	Pears	2.2	104.5	2.3	134.8	3.1	140.9
06.1/3	Peaches	13.8	92.8	12.8	193.0	24.7	179.0
06.1/4	Other fresh fruit	196.6	112.7	221.5	86.5	191.7	97.5
06.4	Grapes, total	100.8	112.4	113.3	100.0	113.3	112.4
06.4/1	Dessert grapes	10.6	108.5	11.5	127.0	14.6	137.7
06.4/2	Other grape	90.2	112.9	101.8	97.0	98.7	109.4

Code	Products	Current value for 2020 - BGN million	Volume index (previous year = 100)	Value for 2021 at previous year's prices - BGN million	Price index (previous year = 100)	Current value for 2021 - BGN million	Index of change in current value (2020 = 100)
<b>07</b>	<b>WINE</b>						
07.1	Table wine						
<b>09</b>	<b>OTHER PLANT CROPS</b>	<b>38.1</b>	<b>107.3</b>	<b>40.9</b>	<b>84.1</b>	<b>34.4</b>	<b>90.3</b>
09.2	Seeds	38.1	107.3	40.9	84.1	34.4	90.3
09.3	Other plant products						
<b>10</b>	<b>CROP PRODUCTION (FROM 01 TO 09)</b>	<b>5,238.0</b>	<b>126.0</b>	<b>6,599.9</b>	<b>122.2</b>	<b>8,065.0</b>	<b>154.0</b>
<b>11</b>	<b>LIVESTOCK</b>	<b>988.3</b>	<b>102.9</b>	<b>1,016.5</b>	<b>95.0</b>	<b>966.1</b>	<b>97.8</b>
11.1	Cattle	189.0	103.9	196.3	101.3	198.8	105.2
11.2	Pigs	319.5	110.2	352.1	81.6	287.2	89.9
11.3	Horses						
11.4	Sheep and goats	200.5	89.6	179.7	103.8	186.6	93.1
11.5	Poultry	279.3	103.3	288.4	101.8	293.5	105.1
11.6	Other animals						
<b>12</b>	<b>LIVESTOCK PRODUCTION</b>	<b>973.8</b>	<b>96.7</b>	<b>942.0</b>	<b>105.8</b>	<b>996.5</b>	<b>102.3</b>
12.1	Milk	733.6	94.6	693.7	105.2	729.7	99.5
12.2	Eggs	176.7	94.7	167.4	108.7	181.9	102.9
12.3	Other livestock products	63.5	127.4	80.9	104.9	84.9	133.7
12.3/1	Unwashed wool	1.1	136.4	1.5	106.7	1.6	145.5
12.3/2	Silk cocoons						
12.3/3	Other livestock products	62.4	127.2	79.4	104.9	83.3	133.5
<b>13</b>	<b>LIVESTOCK PRODUCTION (11 + 12)</b>	<b>1,962.1</b>	<b>99.8</b>	<b>1,958.5</b>	<b>100.2</b>	<b>1,962.6</b>	<b>100.0</b>
<b>14</b>	<b>AGRICULTURAL PRODUCTION (10 + 13)</b>	<b>7,200.1</b>	<b>118.9</b>	<b>8,558.4</b>	<b>117.2</b>	<b>10,027.6</b>	<b>139.3</b>
<b>15</b>	<b>PRODUCTION OF AGRICULTURAL SERVICES</b>	<b>462.0</b>	<b>114.5</b>	<b>528.9</b>	<b>103.3</b>	<b>546.3</b>	<b>118.2</b>
<b>16</b>	<b>PRODUCTION FROM AGRICULTURE (14 + 15)</b>	<b>7,662.1</b>	<b>118.6</b>	<b>9,087.3</b>	<b>116.4</b>	<b>10,573.9</b>	<b>138.0</b>
<b>17</b>	<b>NON-AGRICULTURAL INSEPERABLE SECONDARY ACTIVITIES</b>	<b>204.0</b>	<b>95.7</b>	<b>195.2</b>	<b>103.6</b>	<b>202.3</b>	<b>99.2</b>
<b>17.1</b>	<b>PROCESSING OF AGRICULTURAL PRODUCTS</b>	<b>204.0</b>	<b>95.7</b>	<b>195.2</b>	<b>103.6</b>	<b>202.3</b>	<b>99.2</b>
17.1/1	- cereals	63.3	100.0	63.3	105.5	66.8	105.5
17.1/2	- vegetables	26.1	100.0	26.1	104.2	27.2	104.2
17.1/3	- fruit	14.0	100.0	14.0	103.6	14.5	103.6
17.1/4	- wine	34.3	100.0	34.3	102.6	35.2	102.6
17.1/5	- animals	52.8	79.2	41.8	101.2	42.3	80.1
17.1/6	- animal products	6.6	133.3	8.8	102.3	9.0	136.4
17.1/6/1	- milk	6.6	133.3	8.8	102.3	9.0	136.4
17.1/7	- other	6.9	100.0	6.9	105.8	7.3	105.8
<b>17.2</b>	<b>OTHER INDIVIDUAL SECONDARY ACTIVITIES</b>						
<b>18</b>	<b>PRODUCTION FROM THE 'AGRICULTURE' INDUSTRY (16 + 17)</b>	<b>7,866.1</b>	<b>118.0</b>	<b>9,282.5</b>	<b>116.1</b>	<b>10,776.2</b>	<b>137.0</b>
<b>19</b>	<b>INTERMEDIATE CONSUMPTION</b>	<b>4,446.6</b>	<b>113.3</b>	<b>5,036.5</b>	<b>111.4</b>	<b>5,612.8</b>	<b>126.2</b>
<b>19.01</b>	<b>SEEDS AND PROPAGATING MATERIAL</b>	<b>216.5</b>	<b>109.8</b>	<b>237.8</b>	<b>103.4</b>	<b>245.9</b>	<b>113.6</b>

Code	Products	Current value for 2020 - BGN million	Volume index (previous year = 100)	Value for 2021 at previous year's prices - BGN million	Price index (previous year = 100)	Current value for 2021 - BGN million	Index of change in current value (2020 = 100)
19.01/1	- seeds and propagating material supplied by other agricultural enterprises	32.3	115.8	37.4	103.2	38.6	119.5
19.01/2	- seeds and propagating material purchased outside the sector	184.2	108.8	200.4	103.4	207.3	112.5
<b>19.02</b>	<b>FUELS AND OILS</b>	<b>907.5</b>	<b>114.5</b>	<b>1,039.3</b>	<b>114.6</b>	<b>1,191.1</b>	<b>131.3</b>
19.02/1	- electricity	61.3	148.1	90.8	114.5	104.0	169.7
19.02/2	- gas	25.6	134.4	34.4	114.8	39.5	154.3
19.02/3	- other fuels	817.1	111.3	909.6	114.6	1,042.4	127.6
19.02/4	- others	3.5	128.6	4.5	115.6	5.2	148.6
<b>19.03</b>	<b>FERTILIZERS AND SOIL IMPROVERS</b>	<b>455.0</b>	<b>114.9</b>	<b>522.6</b>	<b>141.9</b>	<b>741.6</b>	<b>163.0</b>
19.03/1	- fertilizers supplied by other agricultural enterprises	7.4	117.6	8.7	141.4	12.3	166.2
19.03/2	- fertilizers purchased outside the sector	447.6	114.8	513.9	141.9	729.3	162.9
<b>19.04</b>	<b>PLANT PROTECTION PRODUCTS AND PESTICIDES</b>	<b>319.7</b>	<b>112.3</b>	<b>359.0</b>	<b>102.2</b>	<b>366.9</b>	<b>114.8</b>
<b>19.05</b>	<b>VETERINARY COSTS</b>	<b>251.7</b>	<b>97.4</b>	<b>245.1</b>	<b>102.3</b>	<b>250.7</b>	<b>99.6</b>
<b>19.06</b>	<b>FEED SUPPLEMENTS</b>	<b>918.4</b>	<b>115.5</b>	<b>1,061.2</b>	<b>112.2</b>	<b>1,190.7</b>	<b>129.6</b>
19.06/1	- feed supplements supplied by other agricultural holdings	282.1	121.0	341.4	112.2	383.0	135.8
19.06/2	- feed supplements purchased outside the sector	436.6	85.7	374.2	112.2	419.9	96.2
19.06/3	- feed supplements produced and consumed on the holding	199.7	173.1	345.6	112.2	387.8	194.2
<b>19.07</b>	<b>MAINTENANCE AND REPAIR OF MACHINES AND SMALL EQUIPMENT</b>	<b>338.1</b>	<b>112.2</b>	<b>379.5</b>	<b>103.2</b>	<b>391.6</b>	<b>115.8</b>
<b>19.08</b>	<b>MAINTENANCE OF BUILDINGS</b>	<b>146.0</b>	<b>114.5</b>	<b>167.1</b>	<b>105.1</b>	<b>175.6</b>	<b>120.3</b>
<b>19.09</b>	<b>AGRICULTURAL SERVICES</b>	<b>462.0</b>	<b>114.5</b>	<b>528.9</b>	<b>103.3</b>	<b>546.3</b>	<b>118.2</b>
<b>19.11</b>	<b>OTHER GOODS AND SERVICES</b>	<b>431.7</b>	<b>114.9</b>	<b>496.0</b>	<b>103.3</b>	<b>512.4</b>	<b>118.7</b>
<b>20</b>	<b>GROSS VALUE ADDED AT BASIC PRICES (18-19)</b>	<b>3,419.5</b>	<b>124.2</b>	<b>4,246.0</b>	<b>121.6</b>	<b>5,163.4</b>	<b>151.0</b>

Source: NSI