

#### 2.4.4. State support to agricultural producers by the State Fund “Agriculture” (SFA)

In 2003 the state support through SFA was applied in accordance with the principles set in the *Strategy for financial support for the development of agriculture and rural areas until accession to the EU*; the support aims at the realization of the measures from the *National Plan for Agriculture and Rural Development* (NARDP). An integrated model for financial support to agriculture and rural areas was applied to co-ordinate the two main support sources – the national and the foreign, while implementing in parallel three financial instruments: credits to investments, investment subsidies and direct (current) subsidies.

##### Investment subsidies and interest rate subsidies

In 2003 SFA provided to agricultural producers the total of 722 000 BGN as investment subsidies or interest rate subsidies under the National Investment Programs: *Crop production* and *Livestock husbandry*.

**Table II. 68.**

**Investment subsidies and interest rate subsidies provided under financed/re-financed investment projects in 2003.**

Investment Program	Number	Investment subsidies /BGN ‘000/	Interest rate subsidies /BGN ‘000/
1. "Livestock husbandry" – direct financing by the SFA (credits)	62	166	11
2. "Crop production" – re-financed credits of commercial banks	4	100	0
3. "Crop production" - direct financing by the SFA (credits)	31	126	1
<b>Total:</b>	<b>97</b>	<b>392</b>	<b>12</b>
Targeted investment subsidies		330	
<b>TOTAL:</b>		<b>722</b>	<b>12</b>

Source: SFA

The investment subsidies and other financial easements extended to the agricultural producers followed the support rates listed below:

- for the creation of plantations of perennials – vineyards, orchards, Damascus rose – 1 000 BGN /ha;
- for the creation of vine-nurseries for the production of primary vine-saplings: 7 000 BGN /ha and for the production of certified saplings: 2 550 BGN /ha;
- for the construction, restoration or equipping glass-steel vegetable greenhouses – 10% subsidy of the credit size;
- for the creation of apiaries –10 BGN per bee-hive;
- preferential interest rate on the investment credits secured for young agricultural producers or for the creation of apiaries – 3% annually.

Fifty eight of the projects financed under the Investment programs included also preferential interest rate for young agricultural producers and nine projects – for the creation of apiaries.

**Table II.69.**

**Investment subsidies and interest rate subsidies extended for financed/re-financed projects in 2003 per type of supported activity**

Subsidy type	Subsidy size / '000 BGN /
<b>I. Investment subsidies</b>	<b>392</b>
1. Investment subsidies for the creation of perennials (vineyards, roses and orchards, vine nurseries, vegetable greenhouses, creation of apiaries), including:	209
- perennials (1000 BGN /ha)	162
- greenhouses (10 % credit size)	40
- apiaries (10 BGN / bee-hive)	7
2. Investment subsidies for projects in the regions eligible for support under the Program for Alternative Agriculture in Rhodope, and the Regional Program for North-western Bulgaria, including:	184
- Rhodope	90
- North-western Bulgaria	94
<b>II. Subsidies to cover interest costs, including:</b>	<b>12</b>
- Rhodope	3
- North-western Bulgaria	9
<b>III. Targeted subsidies</b>	<b>330</b>
1. Institute for Rose and Essential Oil Plants – town of Kazanluk	230
2. National Veterinary Service – Sofia	100

Source: SFA

Since 2003 two regional programs are implemented by SFA: the Program for Alternative Agriculture in the Rhodope (*Rhodope*), and the Program for Agriculture Development in Northwestern Bulgaria (*Northwestern Bulgaria*). The Rhodope program covers the territory of the Rhodope mountain massif, i.e. the municipalities with prevailing mountainous territories situated in the districts of Haskovo, Kardjali and Smolyan, as well as the mountainous parts of Plovdiv and Pazardzik regions; also the river Mesta valley – Gotse Delchev, Razlog, Yakoruda territories up to Velingrad and Belovo areas. The Northwestern program was designed for the Vidin, Vratsa and Montana districts and aims at stabilizing the agricultural production in these areas. The agricultural producers from the regions covered by the Rhodope and Northwestern Bulgaria programs are provided with respectively 20% and 14% investment subsidies to the loans provided for the successful applicants; as well as with interest rate subsidies during the grace periods.

The distribution per district of the investment subsidies extended under the “Crop production” and “Livestock husbandry” programs is described in Table II.70.

**Table II.70.**

**Distribution per district of the investment subsidies extended for financed projects**

	“Livestock husbandry”		“Crop production”	
DISTRICT	Projects num	Investment subsidies, / ‘000 BGN /	Projects num	Investment subsidies, / ‘000 BGN /
Blagoevgrad	2	5	3	5
Burgas	-	-	4	67
Varna	1	1	-	-
Vidin	21	50	2	8
Vratsa	10	25	1	4
Gabrovo	1	1	-	-
Dobrich	3	1	2	7
Kardjali	5	16	1	3
Kyustendil	-	-	2	1
Lovech	1	1	-	-
Montana	2	4	1	2
Pleven	1	1	1	1
Plovdiv	4	34	4	72
Razgrad	-	-	1	4
Rousse	1	1	1	3
Sliven	1	1	3	20
Smolyan	7	19	3	7
Stara Zagora	-	-	2	12
Haskovo	2	6	1	1
Shoumen	-	-	2	7
Yambol	-	-	1	2
<b>Total:</b>	<b>62</b>	<b>166</b>	<b>35</b>	<b>226</b>

Source: SFA

## Direct Subsidies

In 2003 within the short-term financial lines the share of the targeted direct subsidies was increased and the share of the short-term crediting was diminished.

The production of *grain, potato, vegetables, rice, milk, and meat* had been supported through **direct subsidies**.

In 2003 the short-term support was channeled through 22 financial lines; 20 of them were **targeted subsidies** for different sectors and operations, and **2 financial lines** of combined subsidies and credits. The number of the contracts for SFA support amounted to 16 415. The Fund reports the provision of 43 292 000 BGN as direct subsidies – this accounted for 75.8% increase in the subsidies compared to the previous year.

**Table II.71. Used financial resources under the targeted financial lines (TFL) and the targeted subsidies (TS).**

No	Financial Lines	Subsidies / '000 BGN /	Contracts Num.	Subsidized Dca / Litre
1.	TFL (credit + subsidy) purchasing mineral fertilizer for sunflower and maize for grain production, harvest 2003	1 479	568	986 258
2.	TS Purchasing seeds for planting of oil-bearing sunflower harvest 2003	1 196	438	683 619
3.	TS Purchasing seeds for planting maize for grain harvest 2003	594	254	329 834
4.	TS Purchasing of potato seedlings for reproduction and consumption, harvest 2003	702	124	4 027
5.	TS Purchasing of seeds for the production of soybeans harvest 2003	2	1	500
6.	TS for purchasing rice seeds for the production of rice seeds, harvest 2003	32	2	3 210
7.	TS for sustaining the animals and birds from the National Gene Pool, the elite populations, for importing and buying elite animals to replenish the Gene Pool, 2003	3 582	654	
8.	Subsidy for the harvesting of wheat, harvest 2003	2 331	966	2 330 800
9.	TS for produced and marketed cow, buffalo and sheep milk extra and first grade, 2003	5 859	4 614	101 505 737 liters
10.	Targeted subsidy for protecting and enriching the Plant Gene Pool, 2003	489	16	7 389
11.	TS Purchasing seeds for planting rapeseed, harvest 2004	174	34	50 999
12.	Subsidy for the production and marketing of tomatoes for cans, harvest 2003.	535	113	10 828
13.	Subsidy for production and marketing of red peppers harvest 2003	524	115	9 592
14.	TS for produced rice, harvest 2003	59	9	6 763
15.	TS for the production and marketing of pea-nuts, harvest 2003.	78	5	1 561
16.	Subsidy for storing wheat for bread, harvest 2003	121	30	-
17.	TS for livestock husbandry projects under "Phodope" Program	50	9	
18.	Subsidy for the cultivation of abandoned private agricultural lands, 2003	2 427	270	242 750
19.	TFL (credit + subsidy) for purchasing mineral fertilizer for wheat, harvest 2004	7 725	1 026	2 864 224
20.	TS Purchasing of wheat seeds to reproduce and for production of wheat for bread, harvest 2004	7 697	1 038	2 253 271
21.	TS Purchasing of mineral fertilizers to support the producers of wheat, harvest 2004.	5 963	747	1 490 893
22.	TS for supporting the feeding of animals and poultry, 2003	1 356	5 382	

Source: SFA

SFA supported the agricultural activities in the following sectors adhering to the respective support rates:

- production of grains and oil-bearing plants
  - Targeted Financial Line (TFL), including credit and subsidy for purchasing of mineral fertilizer for sunflower and maize for grain, harvest 2003: 6.00 BGN /dca for nitrogen fertilizer, of which BGN 1.50 as subsidy;
  - Targeted subsidy (TS) for purchasing seeds for mass-seeding of black oil-bearing sunflower, harvest in 2003 – up to 1.75 BGN /dca for hybrid seeds for mass-seeding;
  - TS for purchasing seeds for mass-seeding of maize for grain, harvest 2003 – up to 1.80 BGN /dca for hybrid seeds for mass-seeding;
  - TS for purchasing colza seeds, harvest 2004 – up to 3.50 BGN /dca;
  - TS for harvesting the wheat in 2003 –1.00 BGN /dca;
  - TS for produced and delivered rice, harvest 2003;
  - TS for storing wheat for bread, harvest 2003 – up to 1.80 BGN /ton each month to cover the expenses for storing the wheat in public warehouses;
  - TFL, including credit and subsidy for purchasing mineral fertilizer for wheat, harvest 2004 – up to 5.40 BGN /dca VAT included for nitrogen fertilizer, of which 2.70 BGN /dca as subsidy;
  - TS for purchasing wheat seeds for reproduction and production of wheat for bread, harvest 2004: 5.0 BGN /dca VAT included for base wheat seeds, BGN 3.75/ da for certified wheat seeds 1<sup>st</sup> reproduction, 2.50 BGN /dca certified wheat seeds 2<sup>nd</sup> reproduction and 20,00 BGN/da for the production of base and pre-base wheat seeds;
  - TS for purchasing mineral fertilizers for producers of wheat, harvest 2004 : up to 4.00 BGN /dca;
  - TS for purchasing seeds for the production of rice seeds, harvest 2003 – up to 10.00 BGN /dca;
- Production of potatoes
  - TS for purchasing potato saplings for seed production and consumption, harvest 2003 : up to 250.00 BGN /dca for class “Elite”, up to 200.00 BGN /dca for class “A” and up to 150 BGN / dca for class “B”;
- Production of vegetables
  - TS for produced and marketed tomatoes for cans, harvest 2003 - up to 0.02 BGN / kg for graded and sold produce;
  - TS for produced and marketed red peppers, harvest 2003 - up to 0.04 BGN / kg for graded and sold produce - first quality grade;
- Production of Soybean
  - TS for purchasing seeds for the production of soybean, harvest 2003- up to 4.00 BGN /dca;
- Production of peanuts
  - TS for produced and marketed peanuts, harvest 2003 - up to 22.00 BGN / dca;

- protecting and enriching the Plant Gene Pool
  - TS for protecting and enriching the Plant Gene Pool, 2003
- Cultivation of abandoned agricultural lands
  - Subsidy – up to 10.00 BGN / dca for cultivation of abandoned lands;
- Milk Production
  - TS for produced and marketed cow, buffalo and sheep milk of extra and first grade quality - up to 0.06 BGN/l for extra grade cow milk, up to 0.05 BGN/l for first grade cow milk and up to 0.07 BGN /l for first grade buffalo and sheep milk.
- Livestock husbandry
  - TS for sustenance of animals and birds from the National gene pool, the elite part of the populations, for import of elite animals for replenishing the Gene Pool and partially covering the feed expenses – 80% for feeding the animals and 20% for sanitation of the premises, prophylactics and selection activities;
  - TS for livestock husbandry under the “Rhodope” Program;
  - TS supporting the feeding of animals and birds, 2003;

**The support for several more important sectors:**

- Wheat

In 2003 23 838 000 BGN were extended to support the production of wheat. The distribution of the funds was as follows:

- 2 331 000 BGN to support the wheat harvest campaign on 2 330 880 dca (233 088 ha), harvest 2003; the number of the supported producers was 966;
- 121 000 BGN to cover the expenses for storing wheat, harvest 2003, in public warehouses;
- 7 725 000 BGN to finance part of the expenses for application of mineral fertilizers before sawing wheat on 2 864 224 dca, harvest 2004; a total of 1 026 contracts were signed;
- 7 697 000 BGN under the TS for wheat seeds, harvest 2004, for purchasing of seeds: 18.8% increase compared to the funds utilized in 2002 ; 1 038 producers of grain were supported to sow 2 222 744 dca of lands;
- 5 963 000 BGN for purchasing mineral fertilizers to apply on 1 490 893 dca, harvest 2004;

The funds utilized under the two TFL for purchasing the mineral fertilizers are 45.8% higher than the support extended during the campaign in the previous year.

- Sunflower and Maize

For the support of the spring campaign for sowing sunflower and maize (harvest 2003), SFA extended the following subsidies:

- 1 479 000 BGN for purchasing fertilizers for sunflower and maize for grain; 568 producers were supported in feeding 986 256 dca of sown fields;

- 1 196 000 BGN as subsidies for purchasing seeds for mass sowing of black oil-bearing sunflower – 9.2% increase compared to the previous year;

- 594 000 BGN to support the sowing of 329 834 dca of maize for grain; an approximate decrease of 50% compared to the previous year; the aid was received by 254 producers;

- Potatoes

In 2003 the production of potato was supported with subsidies amounting to 701 674 BGN; this indicates 83% increase compared to the previous year. 124 producers benefited from the support extended for purchasing the potato seeds.

- Rapeseed (Colza)

The support for purchasing seeds for sowing rapeseed, harvest 2004, was extended on the basis of 34 contracts. The subsidy totaled 174 000 BGN and covered the sowing of 50 999 dca. The comparison with the subsidy in 2002 indicates a 7% decrease.

- Vegetables

233 producers of vegetables were supported. The total amount of the subsidies extended for produced and marketed tomatoes and red peppers was 1 060 000 BGN – seven times the aid paid in 2002.

In 2003 the production of soybean, rice and peanuts was included for support for the first time. Likewise, the cultivation of agricultural lands abandoned for at least 3 years and property of private physical and juridical persons was also included in the support schemes. The utilization of the funds was as follows:

- one producer was supported with 2 000 BGN to purchase seeds for the production of soybeans ;

- total of 91 000 BGN were paid under the two TFLs subsidizing the production of rice; of them 32 000 BGN were extended for purchasing seeds, and 59 000 BGN were paid upon delivery of the ready produce;

- 78 000 BGN were extended under the TS for produced and delivered peanuts, harvest 2003;

- 2 427 000 BGN were contracted for the cultivation of 242 749 dca of abandoned lands under the TS for initial cultivation of abandoned agricultural lands;

- 489 000 BGN were utilized by the units (i.e. institutes) of the National Center for Agrarian Sciences for sustaining the national plant genetic resources.

- Livestock husbandry

Non-refundable 4 988 000 BGN were provided for the livestock husbandry sectors in 2003; of them:

- 3 582 000 BGN to support the sustaining of genetically valuable animals and poultry, as well as the selection-reproduction process in the sectors; the total utilized funds marked an increase of 35% compared to the funds in 2002; 645 physical and juridical persons were supported in sustaining the gene pool and the elite part of the animal/poultry herds/flocks.

- 1 356 000 BGN to support the feeding of animals and poultry in the winter period. The subsidy was distributed to cover the difference in the forage prices for 5 382 agricultural producers.

- 50 000 BGN subsidy for feeding the animals under the Program for Alternative agriculture "Rhodope". The aid was provided to 9 agricultural producers in the Rhodope region, who had already received investment credits within the "Livestock husbandry" program.

▪ **Milk production**

5 859 000 BGN were paid as subsidies for the produced and delivered quality milk in 2003. Thus, 4 614 producers of milk and 101 505 737 liters of cow, buffalo and sheep milk were subsidized. In comparison, during the previous period the milk producers received a total of milk production subsidies equal to 2 370 000 BGN.

**Subsidies under SAPARD**

In 2003 70 124 000 BGN were paid as subsidies under the SAPARD Program. Government's co-financing was 25% of the subsidies and equaled 17 31 000 BGN. More detailed presentation of the SAPARD support is included in the special SAPARD section of this report.

The allocation of the financial resources to the different targeted financial lines, targeted subsidy schemes, investment programs, the relevant sizes and support rates are presented in Table II 72.

**Table II.72.**

**Distribution of the financial resources allocated to the SFA targeted financial lines and targeted subsidies for year 2004**

<b>Financial line</b>	<b>Total resource / '000 BGN /</b>	<b>Rate of support /BGN /</b>
<b>I. DIRECT SUBSIDIES, including:</b>	<b>36 000</b>	
Targeted subsidy for the production and marketing of tomatoes for cans, harvest 2004.	600	0.02 BGN/ kg of tomatoes for cans
Targeted subsidy for production and marketing of red peppers, harvest 2004	900	0.04 BGN/kg of red pepper - first quality grade
TFL (combined credit and subsidy) for purchasing certified seeds for planting maize for grain, harvest 2004.	2 000 4 000- for credits	2.00 BGN / dca (plus 4.00 BGN as credit)
TS Purchasing seeds of black oil-bearing sunflower, harvest 2004	6 000	4.00 BGN/ dca
TS Purchasing of potato seeds for seed production and consumption, harvest 2004	1 100	class "Elite" – 250 BGN /dca class "A" – 200 BGN /dca class "B" – 150 BGN/dca
TS for supporting the feeding of animals from the National Gene Pool	5 000	
Targeted subsidy for protecting and enriching	500	



the Plant Gene Pool, 2004		
TS for produced and marketed cow, buffalo and sheep milk of first quality grade, 2004	8 000	0.05 BGN/lt – cow milk- first grade 0.07 BGN/lt – sheep and buffalo milk – first grade + 0.01 BGN/lt – for the regions included in the “Rhodope” and “Northwestern Bulgaria”
Subsidy for the cultivation of abandoned private agricultural lands in 2004	3 000	10.00 BGN/da
Subsidy for supporting the feeding of animals and poultry in the winter period (forage expenses) – months 1-2, 2004	4 350	0.30 BGN/unit – for non-mature future parents 0.25 BGN/unit – for egg-production poultry 0.35 BGN/unit – hens 6.00 BGN/unit – cows 4.00 BGN/unit – she-buffaloes 12.00 BGN/unit – horses 5.00 BGN/unit – mother-swines
TS for purchasing seeds for planting rapeseed	200	3.50 BGN/da
Targeted subsidy for the production and marketing of pea-nuts	100	0.20 BGN/kg
Subsidy for livestock husbandry projects under "Phodope" Program	150	
TS for the production of rice	410	9.00 BGN/da
Targeted subsidy for the production and marketing of sugarbeet, harvest 2004	300	15 BGN/ton
Targeted subsidy for the production and marketing of non-processed cotton of prime and first quality grade, harvest 2004	200	0.25 BGN/kg. for delivered produce
Targeted subsidy for the production and marketing of flax stems, harvest 2004	90	0.078 BGN/kg. for delivered produce
Export subsidies	3 000	
Reserve	100	
<b>II. INVESTMENT SUBSIDIES (in combination with subsidies for interest rates)</b>	<b>4 000</b>	1. For the creation of perennials plantations: vineyards, rose massifs and orchards; greenhouses for vegetable growing and creation of apiaries. 2. To cover part of the costs associated with interest on credits for young agricultural producers, as well as interest charged on investment credits for the creation of apiaries. 3. For the producers in the regions covered by the Programs “Rhodope” and “Northwestern Bulgaria”.

Source: SFA

During the first half of 2004 SFA provided investment subsidies in the amount of 417 000 BGN under the “Crop production” and the “Livestock husbandry” programs, targeted subsidies of 250 000 BGN and interest rate subsidies of 1 600 BGN. In the same period the Fund provided direct subsidies totaling 17 601 000 BGN under 16 191 individual contracts; this indicates that 48.89% of the preliminarily allocated SFA resources were utilized by mid-2004.

### Changes in the legislation related to State Aid

In 2003 and 2004 Bulgaria progressed in harmonizing the national legislation with the EU legislation. Major importance was attributed to the creation of legislation which would allow the establishment of administrative capacity for the implementation of the measures from the Common Agricultural Policy (CAP). With regards to the CAP reform the efforts were primarily directed at the creation of the necessary capacity to implement the measures related to market organization in several sub-sectors. In the end of 2002 the *Law for the modification and supplementing the Act for Support for Agricultural Producers* was adopted; hence, the secondary legislation related to the system for export subsidies for processed and unprocessed agricultural products was enforced. By means of an ordinance issued by the Council of Ministers, the granting of licenses for export subsidies was arranged in accordance with the requirements of Regulation 1291/2000. The products that are eligible for export subsidies, the size of the subsidies and the export destinations would be decided annually by the Council of Ministers and the decision would be the grounds for SFA issuing the export licenses. The Minister of Agriculture and Forestry set by an ordinance the conditions and the order for the payments of the export subsidies in accordance with the requirements laid in EU Regulation 800/1999. According to the rules, the Customs offices check the products eligibility for the system and their quantity, and then certify their date of exit from the territory of the country; MAF controls the quality of the exported produce and SFA checks the compliance with the rules and executes the payments of the export subsidies.

Based on the enforced legislation the Council of Ministers issued Decision №212/22 March 2004 to identify the products, subsidies and destinations for the supported exports in 2004. The exports of chicken meat, eggs for consumption, milk products (white brined cheese and yellow cheese) lamb meat, canned fruits and vegetables to certain geographic destinations were supported in 2004. Exports to the EU member states including the new member states would not be subsidized.

In the first half of 2004 SFA carried out one public auction for licensing a total of 621 000 BGN as export subsidies.

The Ordinance for interventions in the markets for agricultural products was adopted based on the *Modification Law* above. This Ordinance was prepared based on the regime for interventions in the sector “Field cultures” (Regulations 824/2000, 2273/93 and 2131/93), but it also respects the requirements related to the interventions in the market for slaughterhouse produce (Regulation 562/2000). The Ordinance created the juridical preconditions for the creation of an Intervention Agency within the SF “Agriculture” in accordance with the commitments undertaken by Bulgaria during the negotiations with the EC.

The Ordinance for the criteria and the order for controlling the quality of the grain at market interventions was adopted to allow the application intervention mechanisms in the grain market. The Ordinance introduced in its entirety Regulation 824/2000. The control on the grain quality was assigned to the National Grain Service, which has the necessary capacity to implement the methods for analyses required by the Regulation.

In 2003 the preparation for the startup of a PHARE Project was carried out; the project aims at the establishment of a Paying and Intervention Agency (PIA) as committed in the

Negotiation Chapter “Agriculture”. The work on the establishment of the PIA, including the design of the Integrated Administrative Control System (IACS), began on April 1<sup>st</sup> 2004 by launching a PHARE Twinning project BG 2002/IB/AG/01 between Bulgaria, The Netherlands and Great Britain.

#### **2.4.5. Other state expenses related to supporting the agricultural sector**

In 2003 MAF budget allocations were spent for activities which were having indirect effects on the development of the agricultural sector; follows a list of the financed activities:

- ✓ for restoration of areas affected by natural disasters and production accidents – 1 170 000 BGN
- ✓ for irrigation –7 870 000 BGN
- ✓ Veterinary activities – 6 036 000 BGN inclusive of vaccines and diagnostic tools – 3 266 000 BGN; immunization program –2 496 000 BGN; forced removal of sick contagious animals – 44 000 BGN; inspection of bee-hives – 11 000 BGN; monitoring program –205 000 BGN; purchasing of young animals for reproduction – 9 000 BGN, etc.
- ✓ Under the program for fish multiplication and sustaining the fish populations – 100 000 BGN
- ✓ for defense – mobilization upkeep –316 000 BGN
- ✓ for training and information materials related to EU accession –34 000 BGN
- ✓ for maintaining the (game) eco-balance and for international shows of the “Forestry” sector – 1 068 000 BGN
- ✓ for controlling the Moroccan and Italian locusts –210 000 BGN
- ✓ for destroying pesticides beyond expiry date –292 000 BGN
- ✓ for physical training and sports –46 000 BGN
- ✓ For Project BG00040303 “Vocational Training” –616 000 BGN
- ✓ Under Project “Mountainous agriculture and livestock husbandry” – 500 000 BGN
- ✓ International Fair “AGRA” – 2003 – 59 000 BGN
- ✓ Land management – 687 000 BGN
- ✓ For upkeep of Land Restitution Plans –38 000 BGN
- ✓ Restitution and distribution of forest areas –95 000 BGN
- ✓ Issuing the SAPI OOD bulletins on agricultural market information – 203 000 BGN
- ✓ Guarding the hydro-amelioration equipment and installations – 2 068 000 BGN

#### **2.5. Taxes, fees and charges**

##### **Taxes**

*The taxation and taxation easements set in the Corporate Income Taxation Act, the Physical Persons Taxation Act, The VAT Act, and the Local Taxes, Charges and Fees Act were all described in details in Annual Report 2003.*

In view of current changes introduced in the social security legislation, the present report will review the standing of the agricultural and tobacco producers with regards to the Social Security System. Their status is regulated by the Social Security Code (SSC), the Law for

National Health Insurance (LNHS) as well as the Law for the Budget of the Social Security (LBSS).

The registered agricultural and tobacco producers have to insure against physical disability because of general disease, for old age and death. The insurance payments may vary between 50% of the minimum and maximum size of the income range set for security calculation purposes in the LBSS (security income range); the installments should be paid by the insured in advance for each month.

The final size of the monthly security income is calculated on the basis of the declared incomes in the period during which actual activity was exercised in the previous year; it may not be lower than the minimum monthly security income set for payment calculation purposes.

Till 31.12.2005 the security installments for the registered agricultural producers and tobacco producers will be calculated on income basis which are at least 25% of the minimum size of the monthly security income.

The size of the monthly security income is defined each year in the LBSS.

The registered producers who exercise only agricultural activities and are insured only against disability because of general disease, for old age and death, may pay the due security installments till March 31<sup>st</sup> of the year succeeding the year in which the installments had to be paid.

In 2004 the registered producers must insure their health upon incomes not lower the double size of the minimum work wage for the country; the installments should be paid till the 10th day of the month following the month for which they were due.

## **Fees**

In 2003 the total amount of the state charges, fees and tariff incomes collected by the MAF services reached 174.2 million BGN; 81.9 million BGN were the collected charges and fees and 94.2 million BGN were the collected tariffs.

The major part of the money was collected through:

- National Veterinary Service – state charges of 37 million BGN and fees for services of 0.6 million BGN;
- the National service for plant protection, quarantine and agri-chemistry 10 million BGN ;
- Executive Agency on fishery and Agriculture –1.8 million BGN of charges and service fees of 0.001 million BGN;
- Executive Agency for Selection and Reproduction in the Livestock husbandry sector –1.6 million BGN ;
- Executive Agency for Variety Testing, Approbation and Seeds Control – 0.5 million BGN of state charges and 1.4 million BGN from services;

- National Grain Service –0.2 million BGN from services and 0.6 million BGN from state charges;
- Fees for testing and controlling agricultural and forestry machinery and spare parts – 0.07 million BGN;
- MAF state charges including the registration fees for traders with grain –6.8 million BGN , and services: 1.1 million BGN ;
- The National Forestry Board –58.1 million BGN from services and 35.1 million BGN from state charges;

*In 2003 MAF (the “Tobacco” Fund respectively) received the following funds that were ceded by the state for the purpose of the state support for agriculture:*

- Excise duty on tobacco products in the amount of 131 million BGN;
- Customs duties and customs fees –100 000 BGN;

## **2.6. Investments**

### **2.6.1. General characteristics of the investments in the agricultural sector**

The relative share of the investments in the agrarian sector remained small compared to the rest of the economic sectors. Despite this, the rate of investments in the last two years has increased. Because of the agrarian sector specific characteristics, the relevant enterprises in it do not come up with projects and premises with high costs; however, the number of such facilities keeps increasing on the territory of the country. In 2003, according to preliminary data by NSI, the total investments made in the sector (agriculture, hunting, forestry and fishery) totaled 351.7 million BGN, of which 182.3 million BGN were investments for creation of long-term assets, and 169.4 million BGN for acquiring long-term assets.

### **2.6.2. Investments financed by MAF**

Some of the larger projects accomplished in 2003 in the area of hydro-amelioration were:

**Table II.73.**

#### **Investments in hydro-amelioration in 2003**

<b>Projects</b>	<b>Costs /BGN/</b>
1. Reconstruction of the compensation reservoir for “Rakovski” system, Dobrich district – Kavarna municipality	106 345
2. Reconstruction of the "Lenovo" dam spillway, Plovdiv district, Assenovgrad municipality	246 469
3. Reconstruction of the right dike of the “Elbasan Dere”, Kardjali district, Kumovgrad municipality.	136 993
4. Irrigation system (IS) “Goljama Vitska”. Institute for Wine and Viticulture. Reconstruction of irrigation system for vine nurseries, Pleven district, Pleven municipality	117 693

5. IS Stara Zagora. Reconstruction of canal <i>II-I</i> in the length-range from km. 0 till km. 1.297; Stara Zagora district.	662 256
6. IS Levka; Levka dam –I-st stage, Haskovo district, Svilengrad municipality	3 183 439
7. IS Dobromirski to “Benkovski” dam- gravitation link-canal district Kardjali, Kirkovo municipality	311 462
8. The <i>Osam</i> river valley - restoration of the dike at the 50 <sup>th</sup> kilometer; Veliko Tarnovo district	129 484
9. “Petelovo” dam. Reconstruction of Pumping-in station from “Pchelarovo” dam; Kardjali district, Chernoochene municipality	105 314
10. “Slanchogled” dam. Reconstruction of Pumping station and adherent irrigated areas. Kardjali district, Djebel municipality	277 422
11. “Tzareva poljana” irrigation area. Reconstruction of the PS “Balak”; Haskovo district – Stambolovo municipality	428 642
12. Reconstruction of “Gorno Plazishte” dam and adherent irrigated fields. Kardjali district, Djebel municipality	190 341
13. “Skalak” dam –Burgas district, Ruen municipality	74 735
14. Correction of ravine Glavinitsa . Silistra district, Glavinitsa municipality	218 000
15. Correction and eco-strengthening of the ravine in the Buzaluka area town of Elhovo, Haskovo district;	186 000
16. IS <i>Popovo</i> . Reconstruction of canal <i>II-I-IV</i> , length-section from km 5+50 till km 10+25	95 000

Source: MAF – “Investment Policy” directorate

The prevailing part of the investments was targeted at:

- big irrigation and drainage pumping stations, canals, pressure pipelines, compensation reservoirs, siphons, dam spillways
- repair-works on hydro-amelioration facilities and installations - canals, pipelines, water-catchments, floodgates and others
- repair-reconstruction works on anti-flooding facilities – corrections of rivers, dikes along The Danube and other rivers, drainage equipment and canals and others;
- continuation of constructing the dams which were started in previous years and reconstruction of big facilities.
- construction and reconstruction of smaller hydro-amelioration facilities and securing water for agricultural institutes through drilling wells

The capital investment expenses for improving the productivity of the agricultural lands were financed by own MAF revenues collected by means of fees and charges as set in the Protection of Agricultural Lands Act.

The objects were included in MAF capital investments program which was composed on the basis of incoming written proposals by municipality mayors after being coordinated with the representatives of the district directorates “Agriculture and Forestry” and the municipality services “Agriculture and Forestry”.

In 2003 the investments for upkeep and protection of the agricultural lands were targeted at:

- reclamation of the abandoned lands from of the state lands fund by clearing the area from trees, bushes, stones; loosening and leveling the upper layers so that the areas could be cultivated again.
- Melioration facilities inclusive of: drainage fields and canals, construction and reconstruction of barriers and barrages, reservoir and other prevention means; Facilities developing the infrastructure in the agricultural territories, i.e. construction and reconstruction of agricultural roads, drains and culverts, fords, watering places for animals etc. These objects are important in achieving the goals of the agrarian reform which is presently carried out.

The Data for the investments financed by the MAF budget are presented in Table II.74.

**Table II.74.**  
**Investments in agricultural roads, 2003**

<b>Projects</b>	<b>Costs BGN</b>
1. Agricultural road (AR) villages of Valkosel- Zhizhevo -II section Blagoevgrad district – Satovcha municipality	214 269
2. AR villages Vodnjantsi – Yarlovitza, Vidin district, Dimovo municipality	314 375
3. Reconstruction of AR village Balabanovo – Lovech district –Trojan municipality	145 436
4. AR village of Vulchedrum - III section, Montana district Vulchedrum municipality	197 690
5. AR village of Krastava – Pazardjik district, Velingrad municipality	371 094
6. Reconstruction of road №000613 later continuing as road №00062 town of Belene, Plevan district – Belene municipality	169 299
7. Reconstruction of the field road to village of Borino, Smolyan district, Borino municipality	221 227

Source: MAF – “Investment Policy” directorate

In MAF investment activities priority is given to these investment projects and activities which are directed at maintenance and restoring of the functions of the existing assets, and whenever new hydro-amelioration projects were considered – the priority would be given to regions with low development of the hydro-amelioration infrastructure and expressed demand for irrigation water (“Tihomir” dam, Irrigation system “Rila”, Irrigated area “Ployana”).

The existence of requests for irrigation water, as well as the goal to decrease the water losses have decisive role when considering whether to include certain projects in the investment program (Irrigation canal (IC) “Pasha arch”, IS “Aleko-Pazardjik”, IC “P-4” – Boljarovo).

The significant part of the proposed objects in the regions of Plovdiv, Pazardjik, Haskovo and Stara Zagora take into consideration the existence of SMEs for processing the

agricultural produce as through improving the irrigation the necessary raw material would be provided for the processing industry.

When considering the proposals for investments eligible under the Protection of Agricultural Lands Act, similar criteria are used: size of the serviced agricultural lands, number of the animals which will have access to drinking water, etc.

**Table II.75.**  
**Planned investments in 2004**

<b>Projects</b>	<b>Costs BGN</b>
1. Irrigation system (IS) Bersin - Reconstruction of water catchment and derivation canal <i>M-I</i> near the village of Slokoshtitsa; Kjustendil district, Kjustendil municipality: 2002/2004	406 109
2. IS Plovdiv; Reconstruction of gravity canal <i>m-1</i> / km 12+400 till km 13+001 Plovdiv district – Maritsa municipality 2002/2004	289 657
3. IS "Yakoruda - Yurukovo"- area "Right bank of river Mesta" Blagoevgrad district – Yakoruda municipality 2003/2004	222 718
4. Reconstruction of in-flowing canal to "Snezhina" dam; Varna district, Provadya municipality 2003/2004	174 813
5. Gravity canal "Lesitchevo - Strjama" – restoration of the lining from km 32+425 till km 33+225; km 33+325 till 34+325 and km. 37+556 till km. 37+656 Pazardjik district, Pazardjuik municipality 2003/2004	511 551
6. Irrigated area of the "Tsaritsa Yoanna" Pazardjik district, Pazardjuik municipality 2003/2004	125 843
7. " Compensation reservoir village of Ezeretz" Dobrich district, Shabla municipality	340 625
8. IS "East Sofia area"- restoration of the lining of main canal in the length km 5+46 till km 11+50, Sofia–Grad district – stolichna municipality 2003/2004	226 004
9. "Diamandovo-Zhaltusha" reservoir and irrigated areas. Second stage of the reconstruction works. Kardjali district, Ardino municipality.	359 034
10. "Samuilovo" dam Blagoevgrad district – Petrich municipality	3 000 000
11. Repair works and reconstruction of the "Razhitza 1" and "Razhitza 2" dams and the irrigated area to them; district of Burgas, Ruen municipality	131 000
12. IS Brashljan. Pumping system <i>II-A</i> -restoration works; Silistra district-Tutrakan municipality	275 000
13. IS Sredna Tundja. Irrigated area - Straldja. Restoration of the pipeline <i>IT 2</i> from km 29+90 till km 33+90 Yambol sdistrict, Straldja municipality.	241 000
14. IS Sredna Tundja. Reconstruction of main pipeline "Straldja" from km 19+10 till km 22+68 Sliven district, Sliven municipality.	401 000

Source: MAF – "Investment Policy" directorate

## 2.7. Credit

### 2.7.1. Bank credit

The provision of credit to agriculture follows the trend of increasing lending activity by banks and of improved access to credit for the economy as a whole. The credits obtained by the sector increased gradually from 127.3 million BGN in 1999 to 263.3 million BGN in 2003. The relative share of the credit provided to agriculture out of the total volume provided to the economy as a whole remained low - about 2% (Table II.76). This was due to the



specificity of the sector, which was regarded as rather high risk by the banks. On the other hand the protracted restitution of land and its fragmented ownership deterred the establishment of market oriented farming entities, which could be competitive and be a creditworthy client of the commercial banks.

**Table II.76.**

**Credit provided to agriculture by commercial banks in the period 1998 – 2002**

**(Million BGN)**

<b>CREDIT - IN BGN AND IN OTHER CURRENCIES (cumulative)</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>
<i>Credit for agriculture</i>	127,3	124,7	164,5	167,4	263,3
<b>Credit for the economy as a whole</b>	6 270,7	7 894,1	9 357,5	10 784,4	13 012,5
Share of agricultural credit out of the total credit portfolio	2.0 %	1.6 %	1.8 %	1,6 %	2,0%
<b>CREDIT - IN BGN</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>
<i>Credit for agriculture</i>	82,8	102,4	137,7	121,2	203,2
<b>Credit for the economy as a whole</b>	2 266,3	2 629,0	3 440,8	4 477,0	6 296,3
Share of agricultural credit out of the total credit portfolio	3,7 %	3,9 %	4,0 %	2,7%	3,2%
<b>CREDIT IN OTHER CURRENCIES</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>
<i>Credit for agriculture</i>	44,5	22,3	26,8	46,1	60,1
<b>Credit for the economy as a whole</b>	4 004,4	5 265,1	5 916,7	6 307,5	6 717,3
Share of agricultural credit out of the total credit portfolio	1,1 %	0,4 %	0,5 %	0,7 %	0,9%

Source: Bulgarian National Bank

## **2.7.2. Credit from State fund "Agriculture"**

The state had initiated measures to ease the access of agricultural producers to credit through the credit schemes and investment programs of State fund "Agriculture".

### **2.7.2.1. Investment credit**

The investment credit schemes are targeted at small and medium-sized agricultural producers in order in an attempt to improve their access to direct subsidy schemes (and to improve their capacity to apply) under the SAPARD program.

In 2003 investment credit was provided through the implementation of the following investment programs:

- Program “Crop production”;
- Program “Livestock husbandry”;
- Program “Agricultural machinery” with two sub-programs:
  - Subprogram "Direct credit from State fund "Agriculture" for purchase of agricultural machinery";
  - Subprogram "Credit provision for machinery purchase through re-financing of the commercial banks by State fund "Agriculture".

The investment credits in 2003 were provided directly by the SFA via the approach *"with money and at the risk of SFA"* or through refinancing commercial banks that had contracts with SFA via the approach *"with money of the SFA and at the risk of the commercial banks"*. Contracts for refinancing were concluded with 15 banks: Biochim, Bulgaria Invest, Eurobank, Investbank, Municipal bank, First east and international bank, First investment bank, Roseximbank, Teximbank, Hebrosbank, Central cooperative bank, Unionbank, Demirbank, Tokuda creditexpress, Procredit bank.

The main parameters of the concessional investment credits are:

- Maturity – from 12 up to 84 months;
- Grace period – from 3 up to 48 months;
- Annual interest – 6 % at direct financing by the SFA and 9% at refinancing of commercial banks (7 % for the bank and 2 % for SFA).

In 2003, 897 projects were approved at cumulative value of 45 248 000 BGN, of which 34 projects through refinancing of commercial banks and 863 projects through direct disbursement by the SFA. The number of approved projects grew six fold compared to the previous year (in 2002, 135 projects were approved at cumulative value of 12 574 000 BGN).

The breakdown of projects by program is as follows:

- Program “Livestock husbandry” – 495 projects worth 13 730 000 BGN
- Program “Crop production” – 146 projects worth 19 585 000 BGN
- Program “Agricultural machinery” – 256 projects worth 11 934 000 BGN.

**Table II.77.**

**Approved and disbursed/refinanced investment projects in 2003**

Investment program	Approved projects		Of which disbursed/refinanced	
	Number	Credit /in ' 000 BGN /	Number	Credit /in ' 000 BGN /
1	2	3	4	5
1. "Livestock husbandry" – through commercial banks	19	4 318	12	1 449
2. "Livestock husbandry" - direct credit	476	9 412	430	8 576
3. "Crop production" - through commercial banks	14	10 349	10	7 675
4. "Crop production" - direct credit	132	9 236	113	7 827
5. "Machinery" - through commercial banks	1	609	1	609
6. "Machinery" - direct credit	255	11 324	222	9 972
<b>Sub-Total:</b>	<b>897</b>	<b>45 248</b>	<b>788</b>	<b>36 108</b>
Refinancing of commercial banks under SAPARD			<b>115</b>	<b>58 214</b>
<b>Total:</b>			<b>903</b>	<b>94 323</b>

Source: SFA

In 2003 under the investment programs of SFA, 788 investment projects were disbursed/refinanced at cumulative value of 36 108 000 BGN, or as follows:

- Program “Livestock husbandry” – 442 projects worth 10 025 000 BGN
- Program “Crop production” – 123 projects worth 15 502 000 BGN
- Program “Agricultural machinery” – 223 projects worth 10 581 000 BGN.

Under the Program “Livestock husbandry”, funding was provided for the purchase of livestock worth 8 921 000 BGN (under 424 contracts) and for purchase of livestock premises and equipment worth 1 103 000 BGN (under 18 contracts).

**Table II.78.**

**Financed investment projects under the "Livestock husbandry" program**

Investment item	Financed projects - direct or through commercial banks		
	Projects (number)	Livestock heads (number)	Value (‘000 BGN)
<b>I. Purchase of livestock</b>	<b>424</b>		<b>8 921</b>
Buffalo cows	1	5	12
Pregnant heifers and cows	181	3 408	4 055
Day-old ducks	1	8 000	25
Day-old chicks	6	173 500	87
Rabbits	9	5 406	192

She-goats	2	680	65
Hens - laying type and meat type	18	120 314	768
Sheep and ewes	94	12 604	1 792
Bee swarms	74	5 886	1 078
Growse	2	8 000	29
Sows	36	1 719	818
<b>II. Purchase of premises and equipment</b>	<b>18</b>		<b>1 103</b>
<b>Total for the program:</b>	<b>442</b>		<b>10 024</b>

Source: SFA

In 2003, 123 projects of agricultural producers were financed under the "Crop production" program at cumulative value of 15 502 000 BGN.

**Table II.79.**

**Financed investment projects under the "Crop production" program**

Investment item	Financed projects - direct or through commercial banks		
	Projects (number)	Area (decare)	Value ('000 BGN)
<b>I. Establishment of perennial plantations</b>	<b>117</b>		<b>12 402</b>
Aronia	6	140	90
White marjoram	2	55	27
Sour cherry	3	40	35
Peach	4	155	71
Pear	1	15	9
Vineyards	21	5 115	10 336
Lavender	9	950	254
Raspberry	18	494	501
Rose	3	151	91
Apricot	8	248	152
Plum	3	114	78
Salvia	1	333	97
Cherry	11	430	166
Hip	1	44	14
Strawberry	7	146	148
Apple	19	418	333
<b>II. Purchase of greenhouses and equipment</b>	<b>6</b>		<b>3 100</b>
<b>Total for the program:</b>	<b>123</b>		<b>15 502</b>

Source: SFA

Under the subprograms for purchase of agricultural machinery 223 projects were funded for purchase of 37 combine harvesters, 176 tractors, implements and other specialized

machinery. Under the subprogram for direct credit from SFA, agreements were concluded with 52 suppliers of agricultural machinery.

**Table II.80.**

**Financed projects under the “Agricultural machinery” program**

Investment item	Financed projects – direct and through commercial banks		
	Projects (number)	Machinery (pieces)	Value (‘000 BGN)
Tractors	145	176	6 033
Combine harvesters	32	37	3 641
Other implements and equipment	46		907
<b>Total:</b>	<b>223</b>		<b>10 581</b>

Source: SFA

Data on the breakdown of financed projects under the investment programs of SFA per regions for 2003 are presented in the bellow data:

**Table II.81.**

**Breakdown of financed projects per region**

Regions	Program “Livestock husbandry”		Program “Crop production”		Program “Agricultural Machinery”	
	Projects (number)	Value (‘000 BGN)	Projects (number)	Value (‘000 BGN)	Projects (number)	Value (‘000 BGN)
Blagoevgrad	3	61	9	456	1	29
Burgas	9	223	10	2 406	3	66
Varna	16	423	2	87	19	905
Veliko Tarnovo	7	488	2	36	16	558
Vidin	37	686	10	251		
Vratsa	26	621	2	625	3	69
Gabrovo	11	267	1	10	3	108
Dobrich	57	869	5	84	27	1 120
Kardjali	15	299	2	22		
Kyustendil	7	153	10	129		
Lovech	14	284	2	30	3	107
Montana	9	141	1	17	2	47
Pazardjik	5	142	3	2 207	4	637
Pernik	19	328			1	4
Pleven	11	654	2	1 371	27	1 632
Plovdiv	36	1 046	13	2 973	16	654
Razgrad	11	153	2	29	16	1 283
Rousse	14	513	2	35	6	277
Silistra	5	98	1	35	23	773

Sliven	18	325	7	2 498	2	89
Smolyan	8	109	3	34		
Sofia – city	7	207	3	74	3	216
Sofia - wider region	9	208	8	166	4	79
Stara Zagora	9	205	4	193	7	326
Targovishte	39	594	5	104	6	322
Haskovo	15	558	5	1 396	1	29
Shoumen	17	253	8	163	21	988
Yambol	8	114	1	69	9	261
<b>Total:</b>	<b>442</b>	<b>10 025</b>	<b>123</b>	<b>15 502</b>	<b>223</b>	<b>10 581</b>

Source: SFA

The breakdown of beneficiary agricultural producers by type of legal status is presented in Table II 82:

**Table II.82.**  
**Breakdown of beneficiary agricultural producers by type of legal status**

Investment program	Individuals	Sole traders	Company entities	Cooperatives
Program “Livestock husbandry”	389	23	29	1
Program “Crop production”	97	6	18	2
Program “Agricultural machinery”	51	47	83	42

Source: SFA

Under the two regional programs: for development of alternative agriculture in the Rhodopa mountain and for the development of agriculture in Northwest Bulgaria 61 agricultural producers obtained credit at cumulative worth of some 1 101 000 BGN. The breakdown of these beneficiaries by investment program and legal status is presented in the following table:

**Table II.83.**  
**Number of provided credits and their worth under the regional rural programs**

	Investment program				Legal status		
	Livestock husbandry		Crop production		Individual	Company	Cooperative
	Projects (number)	Credit worth ('000 BGN)	Projects (number)	Credit worth ('000 BGN)			
Program for alternative agricultural development in Rhodopa mountain	20	402	4	43	21	3	-
Program for agricultural							

development in Northwest Bulgaria	33	564	4	92	34	2	1
	<b>53</b>	<b>966</b>	<b>8</b>	<b>135</b>	<b>55</b>	<b>5</b>	<b>1</b>

Source: SFA

To finance approved projects under the SAPARD program in 2003 the SFA signed agreements with 19 commercial banks, namely: Bulgaria invest, Eurobank, Investbank, Municipal bank, First east and international bank, First investment bank, Roseximbank, Teximbank, Hebrosbank, Central cooperative bank, Unionbank, Demirbank, Tokuda cerditexpress, Procredit bank, United Bulgarian bank, Corporate commercial bank, Pireos bank, Raiffeisen bank, DSK bank. Under these scheme 115 credits worth 58 214 000 BGN were provided at annual interest of 9%.

In 2004 SFA continued the assistance to producers under the investment programs. The allocation of the financial means for them is presented in Table II.84.

**Table II.84.**

**Allocation of SFA funding by investment program for 2004**

	(Million BGN)
<b>Investment programs for 2004</b>	<b>180</b>
Livestock husbandry	25
Crop production	35
Agricultural machinery	20
Refinancing of projects approved under the SAPARD program	100

Source: SFA

In the first half of 2004 SFA disbursed/refinanced 298 investment projects. The cumulative value of credit provided was 9 317 816 BGN, including:

- Program "Livestock husbandry" – 173 projects worth 2.8 million BGN
- Program "Crop production" – 54 projects worth 3,7 million BGN
- Program "Agricultural machinery" – 71 projects worth 2,8 million BGN.

114 projects approved under the SAPARD program were provided credit. The refinancing for them amounted to 67.6 million BGN.

#### **2.7.2.2. Short-term credit from State fund "Agriculture"**

Under the short-term schemes of SFA under 2003 the focus was set on direct subsidies and less on short-term credits.

In 2003 the short-term credits provided amounted to 12 465 000 BGN or almost 50% compared to the previous year.

**Table II.85.**

### Credit under the short-term credit lines

No	Short-term credit line	Credit (‘000 BGN)
1.	Financial line for purchase of mineral fertilizer for sunflower and maize production harvest 2003	4 438
2.	Financial line for purchase of mineral fertilizer for wheat, harvest 2004	8 027
	<b>Total:</b>	<b>12 465</b>

Source: SFA

For the first half of 2004 the short-term credits provided amounted to 3 389 000 BGN. The credits were provided under the financial line for purchase of maize seed for harvest 2004.

## 3. Agricultural production support services

### 3.1. Irrigation

The Executive agency for hydro-ameliorations (EAH) is entrusted with the implementation of MAF policy in the field of irrigation. In the period November 2002 – June 2003 the territorial and managerial establishment of the agency was completed with the needed personnel hired in the HQs and the nine regional directorates for hydro-ameliorations (RDH). Sector units that report to the RDH were created in all regional towns. Under this territorial structure the agency had 20 offices located on the territory of Irrigation Systems Inc. and Hydro-ameliorations – Sevlievo Inc.

The activities carried out by EAH during 2003 included:

1. Assessment of the technical condition of the existing irrigation and drainage infrastructure:

- Appointment of expert commissions with representatives of the RDH, of government-owned operators in the irrigation field, of municipal and regional units of MAF, etc.;
- Preparation of protocol on the condition for each facility related to irrigation, drainage, flood protection, as listed in the assets of Irrigation Systems Inc. and Hydro-ameliorations – Sevlievo Inc. as well as for the works-in-progress, as listed by Agrovodinvest Inc. The total number of facilities was 4 255;
- Establishment of an information database at EAH on the grounds of the findings on the condition of the irrigation, drainage, flood protection facilities in each region. The database will serve as an instrument for the planning of EAH activities, inclusive of:
  - ✓ Priority establishment of the needed regular maintenance and urgent repair works (with focus on the large and potentially dangerous reservoirs);
  - ✓ Listing of the facilities that were out of operation, but comprise of long-term assets with high economic value and should be guarded in order to avoid thefts;



- ✓ Initiating the preparation of an investment program on the development of the drainage schemes in the country and especially for the drainage schemes along the Danube river;
- ✓ Preparation of comprehensive description of the works-in-progress in order to determine the best option for their future: completion [subject to complete technical and financial analysis], freezing construction, decommissioning as part of the irrigation schemes, etc.;
- ✓ Provision of expertise for the preparation and implementation of repair works on the following irrigation reservoirs: Topolnitsa, Sushitsa, Beli briag, Yastrebinovo, Malko Sharkovo, Pchelina, Izvor and others.

2. Organization of the activities related to the role of the government in the irrigation water pricing:

- Signing of contracts between the Minister of agriculture and forestry and the suppliers of irrigation water (Irrigation Systems Inc. and Hydro-ameliorations – Sevlievo Inc.)
- Supervision and control on the monthly preparation of the primary expenditure documents on the basis of which payments were made under the water delivery contracts, supervision and clearance of the seasonal and irrigation depths by crops and areas as well as circulation of these data to the operating irrigation associations;

3. Levying administrative sanctions in pursuance to the Water Act and the Irrigation Associations Act:

- More than 200 on-the-spot checks were carried out (prompted by signals from Irrigation Systems Inc.). These resulted in 105 findings protocols, 34 protocols on administrative offences under the Water Act, 6 penalty injunctions on the basis of the protocols.

4. Assistance to the establishment, management and development of irrigation associations:

Since the entry into force of the Irrigation Association Act in April 2001 till December 2003, 148 applications for establishment of irrigation associations were filed. According to the data provided by the IA, they will cover 701 487 decares of agricultural land in total. The Minister of agriculture and forestry issued 100 orders to open procedures for establishment of IA. 44 IA received an order approving their charters. 34 of them got registered at the district courts. For 25 IA orders were prepared for the transfer free of charge of the irrigation infrastructure. Requests were also filed to municipal mayors for transfer of facilities that are municipal property or property of the one-time state collective farms.

**Table II.86.**  
**Irrigation associations – year 2003**

Regional Directorates for Hydro-ameliorations	Number of irrigation associations	Order to open procedure	IA will cover (decare)	Approved charters	Court registration	Transfer order or request	Contract for transfer of municipal facilities
1	2	3	4	5	6	7	8
Vidin	3	2	25 863	1	1	1	1
Pleven	15	8	43 646	3	2	2	2
Targovishte	7	5	28 417	1			
Varna	23	18	40 497	15	12	8	4
Sofia	10	6	27 469	2	1	1	1
Blagoevgrad	15	11	74 982	2	2		
Plovdiv	23	12	280 125	6	4	4	3
Stara Zagora	25	18	91 959	5	5	4	4
Sliven	27	20	88 529	9	7	5	2
Total	148	100	701 487	44	34	25	17

Source: EAH

5. Utilization of the instruments for economic and technical cooperation between Bulgaria and the EU member states under the Action plan for 2004 of the Accession communication strategy and the Program of the Dutch government for agricultural development (2 projects prepared).

To illustrate the dynamics in the characteristics of the irrigation process in Bulgaria, statistical data are provided in Tables II.87 and II.88 on the irrigation seasons for 2003 and mid-2004.

**Table II.87.**  
**Water volumes supplied and areas irrigated by 31.12.2003**

Water suppliers	Water volume delivered	First irrigation	Irrigated decares
	000 M <sup>3</sup>	decare	decare
Branches of "Irrigation Systems" Inc.			
Burgas	390.6	2682.4	3 485.4
Varna	1 521.0	11 468.0	33 057.0
Veliko Tarnovo	841.0	4 696.4	12 159.8
Vidin	817.3	7 159.0	8 223.7
Vratsa	1 134.8	6 918.0	10 850.7
Gotse Delchev	2 535.9	10 721.8	31 143.6
Douvnitsa	639.6	3 606.0	6 778.0
Montana	338.6	2 561.8	3 489.0
Pazardjik	57 639.4	51 350.0	97 838.0
Pernik	317.4	2 270.2	4 260.1
Pleven	2 575.5	16 302.1	34 515.0

Plovdiv	59 064.0	66 769.0	112 899.0
Plovdiv South	8 956.0	34 207.0	87 338.0
Rousse	918.2	6 170.5	13 210.0
Sandanski	937.0	4 055.0	11 719.0
Sliven	6 061.0	29 175.0	54 693.0
Sofia	544.2	4 244.0	8 241.0
Stara Zagora	7 610.1	19 853.0	35 286.0
Targovishte	3 232.8	19 343.0	39 794.0
Haskovo	3 866.0	16 670.0	55 966.0
Shoumen	1 968.0	12 060.0	34 750.0
Yambol	2 194.0	14 548.0	34 695.0
“Hydro-ameliorations-Sevlievo” Inc.	535.0	2 700.0	4 200.0
Total by 31.12.2003	164 102.4	346 830.2	734 391.3
Total by 31.12.2002	144 416.0	308 798.0	537 078.0
% compared to 2002	+ 13.6%	+ 12.3%	+ 36.7%

Source: EAH

**Table II.88.**

**Water volumes supplied and areas irrigated by 30.06.2004**

Water suppliers	Water volume delivered	First irrigation	Irrigated decares
	000 m <sup>3</sup>	decare	decare
Branches of "Irrigation Systems" Inc.			
Bourgas	1.0	8.0	8.0
Varna	35.0	843.0	843.0
Veliko Tarnovo	39.7	430.5	510.5
Vidin	5.1	54.9	87.0
Vratsa	0	0	0
Gotse Delchev	187.5	2 553.9	2 553.9
Douvnitsa	75.8	757.0	777.0
Montana	29.8	253.0	253.0
Pazardjik	8 837.0	25 315.0	29 974.0
Pernik	21.0	245.8	270.1
Pleven	112.1	2 799.0	3 320.0
Plovdiv	20 028.5	25 020.0	26 122.0
Plovdiv South	1 008.4	14 686.4	17 800.4
Rousse	21.0	452.0	464.0
Sandanski	292.0	2 768.0	3 446.0
Sliven	147.0	1 360.0	1 380.0
Sofia	25.6	414.0	414.0
Stara Zagora	5 754.0	6 145.0	6 145.0
Targovishte	264.0	3 784.0	4 257.0
Haskovo	272.4	6 547.0	6 758.0

Shoumen	117.6	2 513.5	2 895.5
Yambol	80.0	1 348.0	1 369.0
“Hydro-ameliorations-Sevlievo” Inc.	32.0	123.0	424.0
Total by 30.06.2004	37 354.5	98 298.0	109 647.4
Total by 30.06.2003	25 862.0	113 029.0	135 416.0
% compared to 2003	+ 44.4%	- 13.0%	- 19.0%

Source: EAH

**Note:** The increase in water volume supplied in 2004 was due to the increase in irrigated areas of rice [as compared to 2003].

**Table II.89.**  
**Forecast on the process of IA establishment during 2004**

Regional Directorates for Hydro-ameliorations	Number of irrigation associations	Order to open procedure	IA will cover (decare)	Approved charters	Court registration	Transfer order or request	Contract for transfer of municipal facilities
1	2	3	4	5	6	7	8
Vidin	5	4	30 000	2	2	2	2
Pleven	23	18	100 000	8	6	5	5
Targovishte	11	10	40 000	5	3	3	3
Varna	26	23	60 000	18	16	14	13
Sofia	12	10	60 000	5	3	3	3
Blagoevgrad	20	18	90 000	7	6	5	5
Plovdiv	30	21	310 000	10	10	9	9
Stara Zagora	30	25	100 000	11	11	10	9
Sliven	35	28	110 000	15	13	12	10
Total	192	157	900 000	81	70	63	59

Source: EAH

## 3.2. Plant protection and agrochemistry

### 3.2.1. Plant protection

In conjunction with the forecasts on the development of agricultural crops the National plant protection service provided regular information to the farmers with respect to the outbreak, spread, density, degree of infestation of 231 crop diseases, weeds and pests.

#### Plant protection with respect to wheat and barley

- Protection against weeds

In 2003 owing to the lagging development of most of the cereals and the damages they suffered from freezing weather in Northeast Bulgaria, the herbicide application campaign started later than usual. The cold weather in March and April and the varying growth stages of the crop stands made the campaign more difficult.

**Table II.90.**  
**Wheat and barley areas treated against weeds (in '000 ha)**

Year	Total areas occupied by cereals	Total area treated	Including against large-leaf weeds, resistant to hormone herbicides	Including against wheat weeds
2001	1 307.44	919.82	406.83	79.07
2002	1 362.12	1 032.15	483.79	75.66
2003	1 037.63	689.11	391.72	59.43

Source: NPPS

The decrease in treated areas for 2003 was due to the decrease in areas planted to cereals and the bad climatic conditions in the autumn and the winter.

- Protection against pests and diseases.

During the spring of 2003 in North-east Bulgaria due to the drought and the growth stage of the cereals (emergence of third leaf), the wheat-leaf beetle caused substantial damage to the crop-stands. After this period and in the rest of the country the density of the larvae of this pest was above the threshold causing economically significant damages. For the first time in the last couple of years in the regions of Bourgas, Yambol, Sliven and Stara Zagora the crop-stands had to be treated against this pest.

**Table II.91.**  
**Areas infested and treated against the wheat-leaf beetle and its larvae.**  
**(‘000 ha)**

Year	Area infested by the wheat-leaf beetle	Area treated against the beetle	Area infested by the larvae	Area treated against the larvae
2001	2.634	0.062	11.016	7.573
2002	4.153	0.00	27.650	20.180
2003	9.121	3.777	19.983	15.767

Source: NPPS

- Powdery mildew

An outbreak of the disease was registered in a small, in separate areas in a medium intensity, in the regions of Plovdiv, Pleven, Silistra, Rousse, Vidin, Vratsa, Varna, Lovech, Pazardjik, etc. Due to the small intensity of the outbreak only 4 330 hectares were treated.

Plant protection of vineyards

- Mildew, oidium

From 3 to 13 incubation periods of mildew were registered. Treatment alerts filed numbered from 3 to 8 and the sprayings applied numbered 3.6 on average (compared to 3 during the previous year). Treated areas against mildew covered 73 657 hectares. More serious leaf outbreaks were registered in the regions of Blagoevgrad, Stara Zagora, Pazardjik, and Pleven. The plant protection chemicals used comprised mostly of copper-containing ones and chemicals with penetrating and systemic impact.

In the case of oidium certain areas of the country continued to be highly prone to outbreaks of increased density: Blagoevgrad (with 10-16% for wine grapes and up to 50% for dessert grapes), Varna (Black Sea coast area), Stara Zagora (strong outbreak over 1000 decares) and Rousse (an outbreak affecting 600 decares). Treatment alerts filed numbered from 3 to 8. Sprayings applied numbered 1 to 7 and covered 68 000 hectares.

**Table II.92.**

**Areas treated against mildew and oidium by year as a share of the total area occupied by vineyards ('000 ha)**

2001			2002			2003		
Total area	Mildew	Oidium	Total area	Mildew	Oidium	Total area	Mildew	Oidium
86.79	76.95	77.69	85.67	75.89	75.38	79.54	73.66	68.00

Source: NPPS

- Excoriose

The disease continued to spread in the spring of 2003. The intensity of the outbreaks also increased. The weather conditions in the spring favoured the spread of the disease.

**Table II.93.**

**Areas infested and treated against excoriose ('000 ha)**

2001		2002		2003	
Infested	Treated	Infested	Treated	Infested	Treated
8.03	3.05	9.59	2.98	8.45	2.46

Source: NPPS

- Grape berry moth

The total area infested by the grape berry moth was 12 610 ha or 15.8% of the total vineyard area. The areas with higher degree of infestation included the regions of Plovdiv (5 000 ha), Sliven (3 000 ha), Blagoevgrad (1 000 ha), Bourgas (1 000 ha) and Pazardjik (1 400 ha).

Protection against omnivorous pests

- Moroccan and Italian grasshoppers

In the last few years the reproduction of Moroccan and Italian grasshoppers reached calamitous proportions in certain locations in the regions of Kardjali, Haskovo, Blagoevgrad, Plovdiv, Smolyan, Pazardjik, Kyustendil, Vratsa and Dobrich.

In 2003 the area attacked and the density of Moroccan grasshopper outbreaks decreased in the regions of Kardjali and Blagoevgrad. In these regions the populations of Moroccan grasshoppers broke down into separate colonies. This is indicative of the trend of the downward development of the Moroccan grasshopper populations.

The areas infested by grasshoppers in 2003 added to 9 332 hectares. No damages on agricultural crops were permitted.

In the region of Haskovo 430 hectares of tobacco were attacked by green grasshoppers and were treated accordingly. An attack by the same pest was registered also in the region of Pleven. The area infested was 800 hectares.

The areas with density of infestation exceeding the threshold of allowed economic damages are expected to reach 11 000 hectares in 2004. These areas will have to be treated.

### **3.2.2. Plant protection chemicals**

In 2003 applications for testing of 69 plant protection chemicals were received. Of these, 22 were fungicides, 19 were insecticides, 21 were herbicides, 2 were defoliant and desiccants, and 5 were growth regulators and fertilizers.

Of the above chemicals 36 had new active base. The biologic effectiveness of 52 chemicals was approved.

The Council on plant protection chemicals issued permission for market-sales for 43 of the chemicals. The permission was granted on the basis of the results from the biologic testing and toxicology of the chemicals.

The number of plant protection chemicals which are allowed for use in organic farming increased in the past year.

### **3.2.3. Fertilizer use**

2003 was characterized with small reduction in the use of fertilizer due to the drop in the use of nitrogen fertilizer.

**Table II.94.**  
**Mineral fertilizer use**

Year	Total NPK	kg/ha	N tons	kg/ha	P <sub>2</sub> O <sub>5</sub> tons	kg/ha	K <sub>2</sub> O tons	kg/ha
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	tons							
1999	156 344	33.31	140 269	29.88	10 376	2.21	5 699	1.21
2000	163 569	34.85	144 928	30.88	16 104	3.43	2 537	0.54
2001	178 734	38.06	167 962	35.77	8 474	1.81	2 298	0.49
2002	177 935	37.89	155 411	33.09	21 400	4.56	1 124	0.24
2003	167 607	35.71	140 930	30.03	23 874	5.09	2 803	0,60

Source: NPPS

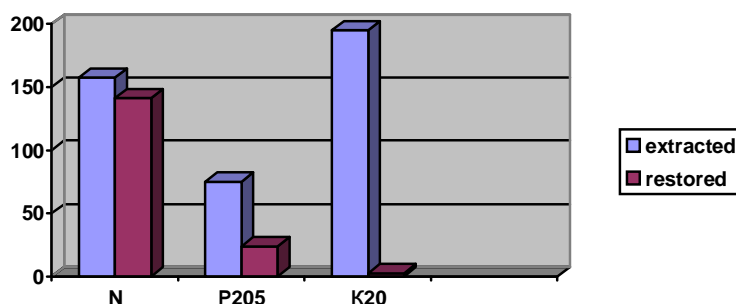
The N fertilizer use dropped by 9.3%, the P fertilizer use increased with 11% and the K fertilizer use increased 2.5 times.

Although there was an improvement in the balance between fertilizer application rates [compared to 2002], it continued to be very unfavorable. Given an optimum balance of N : P : K = 1 : 0,8 : 0,4, in 2003 it was 1 : 0,16 : 0,02. The imbalanced use of fertilizer with predomination of nitrogen continued throughout the country.

The total soil nutrient balance (extracted – restored) was again negative for the nitrogen and highly negative for the phosphorous and the potassium.

In 2003 the harvested crops extracted 16 500 tons of nitrogen, 51 100 tons of P<sub>2</sub>O<sub>5</sub> and 191 900 tons K<sub>2</sub>O.

**Figure II.31.**  
**Soil nutrients extracted with the harvest and restored with fertilizers in 2003 ('000 tons)**



N fertilizer was used with 1 847 000 ha of 2003 crops (average rate of 76.3 kg N/ha). P fertilizer was used with 72 900 ha (average rate of 80.7 kg P<sub>2</sub>O<sub>5</sub>/ha). K fertilizer was used with 30 600 ha (average rate of 116,2 kg K<sub>2</sub>O/ha). This means that 34.69% of the cultivated lands were fertilized with N, 1.37% with P and just 0.56% with K fertilizer.

The cereals had the biggest share of the fertilized areas, especially wheat, barley, sunflower, maize. With the rest of the crops, fertilized areas barely covered 10% of the planted.

**Table II.95.**  
**Fertilizer use with key crops - harvest 2003**



Crop	Nitrogen		P <sub>2</sub> O <sub>5</sub>		K <sub>2</sub> O	
	% of the planted area	kg/ha	% of the planted area	kg/ha	% of the planted area	kg/ha
Wheat	89.3	101.1	2.09	82.0	0.6	51.4
Barley	68.9	81.1	0.48	74.4	0.5	51.4
Maize	54.1	94.6	1.02	89.3	0.35	91.1
Sunflower	50.1	76.2	2.37	82.1	0.8	92.5
Potato	20.1	101.2	18.7	81.1	19.6	115.8
Tobacco	46.3	47.0	2.9	58.2	1.7	54.2
Perennial	27.6	86.1	11.1	90.3	8.2	93.4
Vegetables	13.8	98.3	3.1	88.4	2.0	88.7

Source: NPPS

Manure was applied to barely 6 800 ha [which is 57% of the areas fertilized with manure in the previous year]. Manure was applied to potatoes, vegetables, melons and perennials.

Bulgaria continued to lack systematic agrochemical control of arable lands and this precluded the possibility to track the changes in the balance of nutrients in the soil as well as the reliable diagnostics of fertilization needs. Sample data showed that in some fields the level of usable phosphorous is close to nil. The samples showing low levels of usable potassium were also growing in number. Thus, many areas would be downgraded in terms of availability of usable phosphorous and potassium. As a result, the economic and environment risks to farming should grow.

### 3.3. Veterinary Activities

#### 3.3.1. Animal health protection

During 2003 and first half of 2004 there registered cases with the following contagious and parasitic diseases: classical swine fever /CSF/ - included in List A of the International Bureau on epizootic diseases; rabies; anthrax; contagious epididymitis; lepto-spirochetosis with swine and cattle; typhus; brucellosis with swine and dogs; Q-fever; ornithosis; tularemia; Enzootic leucosis with cattle; Aueski's disease with dogs; salmonellosis with birds, and trichinosis.

In 2003 and 2004 NVS would implement monitoring programmes for epi-zootic surveillance covering: a) foot-and-mouth disease with cloven-hoofed animals; b) blue tong with the ruminants; c) New-Castle disease and flu with poultry; d) African fever with horses; e) transmissible spongiform encephalitis; f) flu with the solid-hoofed animals; g) virus-brought arteritis with solid-hoofed animals; h) surveillance of the immune status against the CSF with the home-bred swine; monitoring of the CSF spread with the wild and the semi-wild eastern-Balkan swine throughout the country; i) surveillance over some specific fish diseases in fish farming.

The marking of the animals and the registration of the animal breeding farms was amongst the primary tasks of the NVS. Computers and other IT were provided to complete the equipping of the Regional Veterinary Services (RVS) and eight border posts for veterinary inspections. The RVS staff performing the marking and identification of the animals was trained to work with the software, which registers and serves the monitoring of “animal movement”. The data for five year monitoring on large ruminants was input in the database of the “EVROVET – BG” system and the system premises for update were prepared. By end-year 2003 public tender was carried out for the supply of ear-marks for identification of swine, and the breeding animals within the reproduction and nuclei herds were marked.

In 2003 the Heads of the “Contagious diseases” units within the Regional Veterinary Services (RVS) were trained in the European legislation. A simulation with a case of foot-and-mouth disease was conducted in March 2003 on the territory of the RVS in the town of Kjustendil; experts from the EU took part in the exercise. In December 2003 a PHARE Twinning Project with the Republic of Greece was concluded; the project aimed at training Bulgarian veterinary specialists in controlling exotic diseases and zoonoses as well as controlling veterinary preparations/substances.

By end -2003 another PHARE project on preparatory works for the construction and equipment of incinerator for processing animal bio-products was completed. The construction and equipment of the incinerator itself will be completed in 2006 under other PHARE projects with primary target of having the facility meeting all the EU requirements and ready for operation by the time of Bulgaria’s accession to the EU. Meanwhile, the reconstruction of the technology for neutralizing animal wastes of high contamination risk at the Shumen incinerator facilities is progressing.

### **3.3.2. Veterinary research and diagnostic activities**

The obligatory laboratory diagnostics and studies required by Art 30 and 31 from the Veterinary Act are carried out by the National Diagnostics and Veterinary Research Institute (NDVRI) and its regional departments in the towns of Stara Zagora and Veliko Tarnovo; such activities are also carried out in the RVS diagnostics laboratories.

In 2003 when implementing the state prophylactics programme and the surveillance programme on the diseases: brucellosis, leucosis, lepto-spirochetosis, foot-and-mouth disease, blue tongue, CSF on home-bred swine and wild boars, African fever with the horses, New-Castle disease and influenza with the poultry, and fish diseases, the diagnostic laboratories with the NVS performed 2 651 705 sample checks of the 2 776 737 planned checks. If compared to the number of checks made in 2002, 1 667 246 more analyses were made, which indicates a 62% increase. There were 703 disease outbreaks in the country with total of 16 997 cases of sick animals.

In order to secure the country in 2004 from penetration and spreading of acute and contagious exotic diseases, additional number of risk-prone solid-hoofed animals will be surveyed against the virus-brought arteritis and influenza.

Significant progress was marked with the fulfillment of the scientific research plan. NVS worked on 54 scientific tasks of high priority; 49 were transitional from previous years and 5 were new; all of the tasks pursue practicability in design and application; the tasks were directed at supporting the diagnostics, prophylactics and the control of animal diseases. All major contagious diseases and zoonoses as listed above are covered in the research.

Significant progress was achieved in renovating and equipping the NDVRI laboratory facilities. In the last few years a gradual improvement/replacement of the laboratory facilities and technologies was underway so that the labor conditions and the appliances and apparatuses could be modernized and reach the EU standards in carrying scientific research and diagnostic studies.

In 2003 the Minister of Agriculture and Forestry assigned competencies to 21 National Referent Laboratories under NDVRI and the Central Veterinary Laboratory (CLVSEE) to monitor the most significant animal diseases and exercise control on the by-products and foods of animal origin; the laboratories will be manned, refurbished and re-equipped to meet the EU requirements related to facilities (laboratory areas/available equipment) and human resources.

### **3.3.3. Harmonization of veterinary legislation with the EU legislation and International cooperation**

In 2003 the harmonization of the National legislation with the EU acquis continued with the transposition of 14 directives. At present only the EU norms on trade between member states remain to be enforced in Bulgaria; this transposition, however, will be accomplished immediately before Bulgaria joins the European Union.

A draft new Law on Veterinary Activities was prepared; after a proposal by the EC a special new chapter was elaborated in the draft Law: "Veterinary medicine requirements for livestock and products of animal origin".

## **4. Control activities, performed by MAF services**

### **4.1. State veterinary-sanitary control (SVSC)**

In 2003 the SVSC organs controlled the enterprises which were producing, processing, storing and marketing animal produce and animal by-products; such duties are included in the Strategy for transforming the enterprises in the food-processing industry into production units which meet the Community requirements.

In 2003 veterinary inspectors from the RVS offices were trained on a seminar with EU experts on how the enterprises should be transformed to meet the common standards criteria. Following the guidelines produced by the SVSC department within the National Veterinary Service, each enterprise adopted a business plan which contained: the measures which should

be undertaken by the enterprise owner and the relevant deadlines for meeting the respective norms and standards (as in EU directives); calculations on the necessary finances and the sources for such finances. The owners of the enterprises were informed that failing to carry out the measures in the business plan will result in closing the enterprise.

By end-2003 and first quarter of 2004 checks were carried out in the enterprises processing foods and by-products of animal origin throughout the territory of the country to see whether they kept to the veterinary-sanitary and hygiene requirements in the relevant regulations; additionally it was inspected whether the enterprises of II and III categories implemented the business-plans as set in point 66 of the Bulgarian Position on Accession to the European Union. In order to implement the Strategy for transforming these enterprises<sup>1</sup>, the SVSC organs carried out the following activities:

- Until 31.01.2004 the enterprises from the IV category were inspected and their licenses for operations were invalidated/they were closed down.
- Until 30.04.2004 the enterprises from II and III categories were inspected; these enterprises from the III category which had not undertaken any prescribed steps for successful transformation were temporarily closed down. The same procedure would be applied throughout the entire 2004 to the enterprises from II category, which fail to perform according to their business plans; the temporary ban on enterprises' operations would be lifted only for those units which manage to fix the identified malpractices and violations of the standards.
- Until 24.05.2004 the SVSC organs carried out the registration of the enterprises for production and wholesale trading with animal foods according to the Foods Act;

The training of the SVSC organs in applying the EU requirements in the area of controlling the by-products and foods of animal origin will continue throughout 2004; they will also receive training on how to exercise control over the self-control systems introduced by the producers themselves.

Forty-three out of total 1 295 operating enterprises were licensed to export to the European Union and 224 were licensed for exports to third countries. In the reported period 165 new enterprises began operations and 519 were closed down.

In the period 01.01.2003 till 31.03.2004 the SVSC organ exercised control on 1 464 343 495 kg of foods of animal origin; 4 424 334 kg of them proved to be with deviations from the Bulgarian quality/technical standards and another 1 133 018 kg of foods were found unfit for consumption and were discarded. 317 708 samples for laboratory analysis were analyzed and additional 1 043 169 samples were tested against trichinosis. A total of 3 651 fines were levied to the perpetrators.

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<sup>1</sup> The enterprises were grouped in four categories depending on the necessary efforts for their successful transformation:

*I* –enterprises meeting in full the EU requirements;

*II* - enterprises which are expected to meet the EU requirements by the end of 2005;

*III* - enterprises which had not undertaken transformation activities by February 1<sup>st</sup> 2004;

*IV* – enterprises lacking the potential to ever meet the EU requirements.

During 2003 a total of 2 042 samples were tested in the Central Laboratory for Veterinary-Sanitary Expertise and Ecology (CLVSEE) in accordance with the National monitoring programme for control on the leftovers from veterinary medicine and identification of environmental pollutants in live animals and animal products (NPMCL). CLVSEE received accreditation according to the Bulgarian standard EN ISO /IEC 17025:2001/.

#### 4.2. Border veterinary sanitary control (BVSC)

In order to protect the country against intrusion and spread of very contagious diseases and zoonoses, the border veterinary posts carried out inspections in 2003 on the imported and exported foods as indicated in Table II.96.:

**Table II.96.**  
**BVSC activities in 2003**

<b>Products</b>	<b>Measurement</b>	<b>Imported</b>	<b>Exported</b>
Live mammals and poultry	<b>number</b>	800 752	174 535.357
Fish and fish products	<b>tons</b>	32 123.4	2.925.9
Eggs for reproduction	<b>number</b>	291 900	1 868 8
Eggs for consumption	<b>tons</b>	987.8	3 258.0
Products for human consumption	<b>tons</b>	101 698.2	31 122.7
Hides	<b>tons</b>	847.4	9 024.2
Forages	<b>tons</b>	73 546.8	116 133.5

Source: NVS

A Strategy for Aligning the BSVC to the EU requirements was adopted. In accordance with the Strategy a detailed inspection was launched in 2003 with thorough review of the border veterinary posts in Varna, Burgas, Kalotina, Zlatarevo, Gjueshevo and Bregovo; the review was financed under the PHARE BG 0101-04 “Improvement of the Veterinary Control” project.

With regards to the harmonization of the veterinary legislation on the rules and requirements at importing and exporting animals and animal products, the following ordinances were prepared/enforced in 2003:

1. Ordinance 1/10.01.2003 on the health requirements for import of live cattle, sheep, goats, and swine and for the veterinary-sanitary requirements for imports of animal origin food stuffs for human consumption (State gazette 6/2003); the Ordinance transposed Directives 72/461 and 72/462 / EEC
2. Ordinance 11/27.02.2003 on issuing the veterinary documents for livestock, inputs and products of animal origin (State gazette 21/2003);
3. Ordinance 16/01.04.2003 on the general requirements for the veterinary checks when letting in products on the customs territory of the country (State Gazette 41/2003; in force from 01-01-2005); transposed Directive 97/78/EC;

4. Ordinance 19/10.05.2003 on the veterinary-sanitary rules at importing certain animals, semen, ova and embryos (SG 48/2003); transposed Directive 88/407/EEC.

A PHARE Twinning project, with the Republic of Greece, on improving the veterinary control was accomplished in December 2003. The Project included training on border veterinary control, control over veterinary medicines and exercising control on exotic diseases and zoonoses. All officers working in the so called *long-term border posts* (situated at borders to become external frontiers of the EU after accession) received proper training.

In April 2004 a joint Bulgarian/Greek Project under PHARE was launched; the project aims at improving the BVSK, the exercise of control on livestock health and diagnostics, as well as improving the control on forages and feeding supplements.

#### **4.3. Controls on Products for the Veterinary Medicine (PVM)**

In 2003 a total of 2,153 PVM samples were tested by means of 8 875 analyses and 400 appraisals by experts. A total of 382 opinions pro-registration were issued on analyzed PVM with 356 certificates for registration/re-registration of PVM; the PVM total value reached 262 973 BGN.

#### **4.4. Phyto-sanitary Control**

The Phyto-sanitary control aims at protecting the country from the penetration and spreading of quarantine pests on plant cultures and forest species.

In the International arena the control is carried out based on the International Convention on Plant Protection adopted in Rome 1951; within the national boundaries the control is exercised based on the rules set in Ordinance 1 on Phyto-sanitary control enforced in 1998.

In 2003 was enforced the Ordinance for the modification of Ordinance 1 from 27.05.1998 on phyto-sanitary control. The modifying ordinance was necessary because of the fact that Ordinance 1 transposed Directive 77/93, which was later replaced by Directive 2000/29 in 2000.

The modifying ordinance transposed into Bulgarian legislation the requirements of the following directives:

- Council Directive 2000/29 from May 8th, 2000, for preventing from penetration the pests on plants or plant product and their spreading in the Community territories;
- Commission Directive 92/70 from July 30th, 1992, setting the detailed supervision procedures for recognition of protected areas in the Community;
- Commission Directive 93/51 from June 24th, 1993, setting the transportation rules for plants, plant products and similar goods through protected areas;
- Directive 94/3 from January 21st, 1994, setting the rules for notification in case of interception of pests originating from third countries, that pose immediate phyto-sanitary danger;

- Directive 98/22 from April 15th, 1998, setting the minimum conditions for conduct of checks of plant health and setting up of inspection points for plants, plant products and similar goods, originating from third countries.

The transposition of these directives completed the harmonization of the Bulgarian legislation to the Acquis in the area of phyto-sanitary controls.

An official Register was established for the Agricultural producers and importers of plants and plant products subject to phyto-sanitary control. The number of registered importers with the Regional services for Plant Protection (RPPS) reached 1131 in 2003; the number of the officially registered producers was 988 inclusive of: 79 – producing seeds, 50 -seedlings and saplings, 260 - saplings for orchards, 148 – saplings for vineyards, 70-greenhouses, etc.

In order to make it easier for the firms importers of plants and plant material, and in order to improve the exercising of control on behalf of the RPPS, it was enforced that the letter-certificatory on the import of plants and plant products subject to control could be issued by any of the RPPS in the country. Until June 30<sup>th</sup> 2003 such documents were issued only by the National Plant Protection Service (NPPS), while the RPPS could service only the adjacent border control posts.

Since year 2000 in accordance with the harmonized legislation, phytosanitary passports are issued to the batches of plants and plant products traveling on the territory of the country. The passports guarantee that the goods are under the control of the phytosanitary organs and that they are free from quarantine pests. According to EU Directive 2000/29, all such batches on the territory of the Union likewise should have such passports in order to be moved.

In 2003 17,432 phyto-sanitary passports were issued for 12,139 imported batches and 5,293 batches of plants and plant products produced in Bulgaria.

## **Import**

### **Control of the import of plant and plant products**

The phyto-sanitary control is carried out at the Border check-points (BCP) that have been assigned by the Minister of Agriculture and Forestry to control the import, export and transit of the goods of plant origin; such control is also exercised by the 14 Regional Plant Protection Services (RPPS).

In 2003 the BCPs exercised documentary and physical control on the following stocks subject to phyto-sanitary control (Table II.97 and Table II.98).

**Table II.97.**

**Phyto-sanitary checks by BCP officers on imported plant cargos - total for the country**

Year	No of batches	‘000 tonnes	‘ 000 samples	M <sup>3</sup>
2001	23 167	500.0	23 498	135 943

Year	No of batches	‘000 tonnes	‘ 000 samples	M <sup>3</sup>
2002	24 279	657.0	16 251	673 162
2003	28 488	642.5	26 039	73 174

Source: NPPS

**Table II.98.**

**Inspections in 2003 on plants and plant products of high phyto-sanitary risk**

Plants and Plant products	Measurem ent	Quantity	No of batches
Seeds	Tons	3 181	498
Saplings for orchards	Number	740 668	41
Saplings for vineyards	Number	2 923 332	30
Potato seedlings	Tons	2 748	140
Tubers, incl. of flower bulbs	Tons	3 365	50
Tobacco	Tons	3 735	217
Cotton	Tons	33 640	701
Grain	Tons	170 862	3908
Flower	Tons	29 601	129
Fruits	Tons	141 240	7394
Vegetables	Tons	97 078	3136
Plants – flowers and flower-pots	Number	9 857 628	411

Source: NPPS

In 2003 the imports of plants -products marked a decrease by 15,000 tons compared to the data for year 2002. However, the imports of saplings for orchard, decorative and forest species marked an increase: approximate increase by 3,000 batches compared to the relevant imports in 2001, and 20,000 more batches compared to the 2002 import figures. This could be explained by the increased activity in the creation of new orchards and vineyards where imported sapling material of high qualities was sought by the agricultural cooperatives and private farmers. There was a significant decrease in the imports of wood.

### **Transit**

#### **Inspected transit cargos with plants and plant products at the BCP offices**

In 2003 the BCP phyto-sanitary inspectors checked 39 100 transit vehicles with cargos of plant origin.

### **Export**

With the enforcement of the modifications and the supplement to Ordinance No 1 on phytosanitary controls, since 30.06.2003 the control on the exports of plants and plant



products is exercised solely by the Regional Plant Protection Services (RPPS) responsible for the issuance of the phyto-sanitary letter-certificatory. A total of 52 077 such letters were issued for exporting plant products in 2003. For this purpose 27 376 phytosanitary examinations were made and 9 823 laboratory analysis were carried out on 52 561 batches comprising 1 445 936 tons of plant goods, 5 490 550 blossoms, saplings for orchards, decorative and forest species and roses, as well as 333 759 m<sup>3</sup> of wood. There were 221 cases where contamination was detected and respective measures were undertaken to prevent the export and remove the danger.

#### **4.5. Control of grains, grain products and feed mixes**

##### **4.5.1. Licensing and control of public warehouses and grain storage facilities**

By the end of 2003 the licensed and registered grain warehouses and storage facilities were as follows:

- 46 public grain warehouses with total capacity of 466 920 tons.
- 130 grain storage facilities with total capacity of 1 019 090 tons.

In comparison to 2002 the number of public warehouses increased with 4 but the total capacity was reduced with 12 000 tons, while the number of storage facilities grew with 9 and the capacity increased with 106 090 tons (Table II.99.). The slowdown in the processes of licensing and registration was due to the comparatively lesser grain harvest in 2003.

**Table II.99.**

**Dynamics in the number of licensed and registered storage capacity by year**

<b>Year</b>	<b>Public warehouses</b>		<b>Storage facilities</b>	
	<b>Number</b>	<b>Licensed capacity (ton)</b>	<b>Number</b>	<b>Registered capacity (tons)</b>
<b>1999</b>	5	98 100	76	551 600
<b>2000</b>	21	238 595	105	819 555
<b>2001</b>	36	417 385	115	854 425
<b>2002</b>	42	479 185	121	913 000
<b>2003</b>	46	466 920	130	1 019 090

Source: NGS

In 2003 the licenses of 6 public warehouses were revoked. These warehouses had a capacity of 47 330 tons. The licenses were revoked under request of the companies operating the warehouses.

The geographic localization of licensed and registered facilities is optimised in Northern Bulgaria where there are 41 public warehouses with total capacity of 434 820 tons and 87 storage facilities with total capacity of 654 825 tons. Thus, 93% of the total capacity of licensed public warehouses and 64% of the capacity of registered storage facilities is located in Northern Bulgaria. The number of licensed and registered facilities in Southern Bulgaria is

still insufficient with as little as 5 licensed warehouses with total capacity of 32 100 tons and 43 storage facilities with capacity of 364 265 tons.

Most of the public warehouses and storage facilities (about 60%) are operated by independent companies, engaged solely with storage and trade with grain. The other licensed and registered facilities belong to flour-mills, feed-mills, plant oil refineries, rice-mills and breweries.

13 on-the-spot checks were conducted in 2003 and their basis 4 new licenses for public warehouses and 9 new registrations for storage facilities were issued.

The regular compliance checks of already licensed and registered facilities in 2003 numbered 118.

Results showed that grain was stored well and the stored quantities corresponded to the quantities registered in the warehouse receipt documents with negligible variations.

The National grain service collected the following information from the warehouses and storage facilities on the volumes of stored grain in 2003 as percentage of the total available storage capacity:

- Public warehouses – from 9% to 39% capacity utilisation depending on the season
- Storage facilities – from 3% to 16% depending on the season

The capacity utilisation was lowest in June prior to the harvest (3-9%) and highest in September (12-39%) after the harvest of wheat and sunflower. The share of wheat of the grain stored reached 58% and the share of sunflower reached 30%. In 2002 the share of wheat was 88% of the total grain stored.

In 2003 the ad hoc checks of storage facilities were very intensive:

- ✓ 27 facilities were checked to ascertain the quantity stored in pursuance to contracts with the State reserves agency.
- ✓ 48 facilities belonging to the State reserves agency and to commercial companies under contract with that agency were checked to ascertain the quality and condition of grain stored.
- ✓ 261 facilities belonging to agricultural cooperatives and large tenants were checked together with the regional directorates of MAF to ascertain the quality of stored wheat.
- ✓ 1 856 facilities were checked together with the regional directorates of MAF to ascertain the stored quantities of wheat harvested in 2003.
- ✓ 114 checks were conducted to collect up-to-date information on the available quantities of grain by December, 1<sup>st</sup> 2003.

In 2003 the service issued 27 findings protocols for public warehouses and 32 findings protocols for storage facilities.

The recommendations made in the findings protocols were implemented within the prescribed deadlines.

As a result of the checks carried out throughout the year the service issued 4 penalty injunctions.

With the introduction of compliance controls in the period July-December 2003 the agency issued compliance certificates for 366 670 tons of grain and grain products which were either imported or exported. This quantity comprised mainly of exported sunflower (black oil seed and motley) – 182 714 tons, exported maize – 58 000 tons and imported maize – 44 573 tons.

Controls were carried out of the declared parameters by the participants in the commodity exchange sessions for purchase and processing of wheat released by the State reserves agency. Controls were carried out in the mills which won tenders for purchase of wheat. 105 mills were subjected to such controls. It was discovered that the mills adhered to the obligation to process the purchased wheat into flour with the exception of 4 mills that were consequently excluded from participation in the coming commodity exchange sessions.

#### **4.5.2. Grain quality control**

During the harvesting campaign the service took 573 samples representing 363 188 tons from all grain producing regions in the country. These samples are representative of the quality of harvested grain.

The quality of the grain was determined on the basis of the main parameters of the Bulgarian state standard and Bulgarian state standard ISO. These parameters determine the consumer and trading value of the wheat.

The distribution of wheat quantities into grain quality groups is presented in Table II.100.

**Table II.100.**

#### **Distribution of wheat quantities into grain quality groups (%)**

<b>Year</b>	<b>I group</b>	<b>II group</b>	<b>I Ib group</b>	<b>III group</b>
<b>1998</b>	3,0	24,0	41,0	32,0
<b>1999</b>	0,0	8,5	30,0	61,5
<b>2000</b>	3,4	9,5	34,3	52,8
<b>2001</b>	1,1	7,6	33,9	57,4
<b>2002</b>	1,2	5,4	29,5	63,9
<b>2003</b>	7,8	13,6	35,3	43,3

Source: NGS

In 2003 the high quality wheat from the top three groups (I, II, IIb) reached 57% of the total grain harvested. In comparison during the period 1999-2002 the high quality wheat reached from 36.1% to 48.5% (with the third group wheat amounting to 61.5% – 63.9%). The quality of the wheat harvested in 2003 was as good as that harvested in 1998.

The wheat harvested in 2003 had better quality in Southern Bulgaria where the breakdown by grain quality group was as follows:

- ✓ I group: 13%;
- ✓ II group: 23%;
- ✓ IIb group: 36 %;
- ✓ III group: 28 %.

In the regions Pazardjik, Sliven, Haskovo, Plovdiv, and Stara Zagora the wheat from I, II and IIb groups reached 80 – 90%.

In Northern Bulgaria the breakdown by grain quality groups was as follows:

- ✓ I group: 4 %;
- ✓ II group: 8 %;
- ✓ IIb group: 29 %;
- ✓ III group: 59%.

The wheat from I, II and IIb groups in the regions of Northern Bulgaria reached from 20 to 60%. The best results in this respect were reached in the regions of Shoumen, Targovishte, Veliko Tarnovo and Dobrich.

#### **4.5.3. Control of feed mixes**

In pursuance to the requirements of the European legislation and the Bulgarian act on animal feed, the directorate “Control of animal feed” under the National grain service registers all individuals and companies, involved in the activities listed in the act on animal feed.

By 31.12.2003 the register included 1033 entries of individuals or companies trading or producing animal feed.

In comparison with the previous two years the number of animal producers or traders who declared their activities under the act on animal feed increased in 2003 as follows:

- ✓ 2001 - 86;
- ✓ 2002 - 316;
- ✓ 2003 - 631;

Controls were carried out in accordance with the 2003 inspections plan. The results of these controls [as prescribed in the act on animal feed and the lower tier legislation in the field] in 2003 were:

- ✓ number of controls - 1208;
- ✓ compliance samples - 612;
- ✓ administrative offence injunctions - 39.

197 producers and traders of animal feed, who had not declared their activities to the control authority, were inspected. They were issued 21 administrative offence injunctions.

In pursuance to Ordinance 44 on trade with combined feed mixes, the service conducted 262 controls. The inspected traders appeared to be adhering to the normative requirements.

Therefore, the market of combined feed mixes tended to supply products of duly registered feed mills.

In pursuance to Ordinance 4 on the feed inputs, the service conducted 259 controls of producers and traders of feed inputs, designated for the production of combined feed mixes.

In pursuance to articles 12 and 13 of the Act on animal feed, the service conducted 356 ad hoc controls of importers and exporters of animal feed and issued 558 compliance certificates.

6 special controls in response to signals and petitions were conducted in 2003. These controls also involved representatives of the National veterinary service.

In pursuance to Ordinance 24 on the terms and procedure for the approval and registration of animal feed producers and traders, the service conducted 134 controls to verify compliance with the minimum requirements to the production and trade with animal feed. On the basis of the controls conducted, 8 producers of combined feed mixes were prescribed graduation from the approval to the registration regime.

During the controls carried out in 2003, the service 612 samples which were analysed in correspondence with the declared parameters by the producers and traders.

#### **4.6. Plant variety testing, approbation and seed control**

The Executive agency for plant variety testing, approbation and seed control is responsible for the activities related to maintaining the official list of varieties in Bulgaria, the controls on the production and marketing of seed, the storage, packaging, labeling, imports and exports of plant seeds and rootstock.

These activities pursue the objectives of achieving the European standards in seed testing and control and in the procedures for seed certification. The achievement of the objectives necessitates improvement in domestic market control.

The functions of the agency are conducted in accordance with the Act on seeds and rootstock material (adopted in February 2003) and with the Act on protection of new crop varieties and livestock breeds. A number of ordinances were also adopted in 2003 in pursuance to the engagements of the country to introduce the European legislation governing the common market in seed and rootstock material.

The texts on seed grades which can be traded, the requirements of EU directives for each seed grade and the requirements for packaging and labeling were fully harmonized. The harmonization took into account both the national practices in this field and the experience of some EU member states.

The new regulatory framework for the production, trade, imports and exports of seeds sets the bases for full implementation of the Acquis Communautaire in the sector.

The necessary measures were taken to streamline the structure of the agency and to improve its capacity in its role of competent control institution.

The activities on testing, approbation and control for the separate types of grading were conducted in the following main directions:

- Testing of seed varieties for distinction, homogeneity and stability and testing for bio-economic qualities based on the assessment of technological, chemical, biotic and abiotic parameters
- Approbation of the varieties for inclusion in the official list of varieties

#### Distinction, homogeneity, stability

The agency conducts an evaluation to prove the novelty and the originality of the varieties. The agency maintains a collection of 1 313 varieties from all major agricultural crops. The richest section of the collection includes varieties and hybrids of maize, sunflower, wheat and tomato. The agency would enrich further the collection to allow the reliable evaluation of the novelty and originality of new varieties which is a requirement under the CAP.

In 2003 the agency signed 377 contracts for testing. 1 690 varieties were examined. All examinations were based on parameters differentiated for each crop by the international union for the protection of new varieties.

153 official variety descriptions were prepared, of which 139 for field crops and 14 for vegetables. In 2003 the agency approved 98 new varieties, while in 2002 it approved 46. Of the varieties approved in 2003 the Bulgarian ones totalled 66.

For the purposes of field inspections 193 approbation checklists were prepared in 2003, of which 167 for field crops and 26 for vegetables.

During 2003 the agency set up 2 414 samples from the examined crops in the experimental plots. 1965 samples were for field crops and 449 were for vegetable crops. Of the total number of samples used to prove the novelty of the variety 2 254 were approved and 39 were discarded. In the experimental fields in accordance with the Act on seed and rootstock material examinations were carried out of the highest degrees of seed.

#### Bio-economic qualities

In 2003 the agency prepared for the purposes of preliminary testing 204 varieties of field crops (maize and sunflower) and for production capacity testing of 4 varieties of tobacco. The total number of varieties tested for inclusion in the official list was 681. Of these 132 were selected in Bulgaria and 403 were selected abroad.

102 varieties were put forward for review by expert committee. Of these 31 were Bulgarian and 71 foreign. 41 tobacco varieties were tested for flavour and taste. 61 varieties were approved for inclusion in the official list (56% of the examined varieties).

The methodologies and technical checklists for variety testing were duly updated in 2003.

The resistance of the main crops to diseases leading to substantial economic damages was tested using natural and artificially induced infections. An assessment was carried out with regard to cereals of their resistance to 11 pathogens affecting 57 varieties (such as powdery mildew, leaf and stem rot). Through subcontracting the research institutes were commissioned to test 218 varieties for resistance to 48 pathogens. The total number of varieties tested for resistance under artificially induced infection was 275. An examination was conducted of the resistance to frost of 55 winter crops (47 cereals and 9 varieties of winter rape seed).

#### Approbation and seed control

In the region offices for approbation and seed control inspections were carried out in 2003 of 533 995 decares of field crops. The crops on 526 203 decares were approved and the crops on 2 520 decares were classified in lower categories and the crops on 5 272 decares were culled. In comparison to 2002 the inspected areas were increased with 256 015.7 decares (an increase of 52.1%).

330 540 decares were inspected in 2003 which is with 198 516 decares more than in 2002. 98.6% of the inspected areas were approved. In comparison with the preceding year the quality labelled wheat seed doubled from 32 436 tons to 74 350 tons.

Field inspections were carried out in 73 891 decares of seed producing barley areas. This was an increase of 40 359 decares compared to 2002.

29 989 decares of hybrid maize were inspected. Of these 28 980 decares were approved. In comparison to 2002 the approved areas increased with 7 361 decares and the quality labelled seed increased with 3 249 tons.

19 050 decares of hybrid sunflower were approved which is with 8 170 decares more compared to the preceding year. The extremely high temperatures during the flowering and pollination stages caused a drop in sunflower yields with 30-70 kg/da, while the quality labelled seed was 1104 tons.

In comparison to 2002 there was an increase in the seed producing areas of rice, rye, tobacco, fodder green peas, lentils, peanuts and soy-beans.

There was a decrease in the seed producing areas of oats, millet, beans, alfalfa, fodder beet, sugar-beet and chick-peas.

The inspected areas of potato were 2 298 decares. Of the inspected 26 potato variety areas the majority were planted with the varieties Agria, Arinda, Sante, and Impala.

In 2003 field inspections covered 1 439 decares of seed producing areas planted with vegetables. Of these 185.3 decares were planted with tomatoes and 771 kg of tomato seed were quality labelled; 185.8 decares were planted with pepper and 4 643 kg of pepper seed was quality labelled; 36.6 decares were planted with cucumber and 1 159 kg of cucumber seed were quality labelled; 44 decares were planted with cabbage and 2 090 kg of cabbage seed was quality labelled.

In comparison to the preceding year in 2003 there was a decrease in the volume of quality labelled vegetable seed due to the decrease in areas planted with melon, beans, onion, spinach, okra, leek, etc. as well as due to the increase in imports of standard vegetable seed.

The production of green peas dropped drastically from 1 183 decares in 2002 to 362 decares in 2003.

In 2003 there was no quality labelled production of seed from carrots, sweet corn, salad beet, savoury, celery, dill.

### **Rootstock certification**

#### Vine rootstock

Inspections covered 726.35 decares of vine rootstock nurseries and 4 502 470 rootstock pieces were quality labelled. Inspections covered also 1 027.08 decares of vine graft nurseries and 1 080 690 graft pieces were quality labelled. The production of standard certified vine stock in 2003 was 1 660 000 pieces. The vine stock certified for export was 68 315 pieces and certified import stock was 896 200 pieces.

#### Orchard rootstock

Inspections covered 5 304 rootstock orchard trees and 535 decares of first-year planted rootstock, 279 decares of second-year planted rootstock, as well as 1 593 394 selected rootstock pieces. 150 281 graft pieces were inspected, as well as 2 100 imported graft pieces 72 020 vegetative and seed rootstock and 592 721 pieces of young orchard trees. 8 335 young trees from the region of Plovdiv were certified for export and 22 950 young trees were certified for import.

#### Berry rootstock

##### **Strawberries**

Inspections covered 140.9 decares of rootstock nurseries. 4 560 000 pieces of strawberry rootstock material was examined.



## Raspberries

Inspections covered 48.85 decares of rootstock nurseries. 531 300 pieces of raspberry rootstock from Bulgaria was examined, as well as 40 000 pieces imported rootstock.

### Rootstock from medicinal, decorative and aromatic plants

In 2003 inspections covered 64 decares of rose nurseries and 736 530 rose rootstock pieces were examined. 142.3 decares of lavender were inspected and 8 676 650 lavender rootstock pieces were examined. Inspections also covered 31.5 decares of mint, 250 decares of hip and 2 decares of rose-hip. 3 590 000 and 9 700 hip and rosehip rootstock pieces were examined respectively.

### Central laboratory

In order to achieve better coordination of activities, rotation of staff and equipment so that the capacity of the executive agency is fully utilised, a centralised laboratory was set up.

In 2003 the laboratory tested 2 430 seed and rootstock samples.

A third of the tested samples were from cereals. This reflects the production patterns in the country where most of the areas are planted with wheat and barley. In terms of varieties the tested samples contained only Bulgarian-selected varieties. With a few exceptions the same applies with barley. The samples of maize and sunflower came second and third in terms of numbers and tested seed quantities. In terms of varieties the tested maize samples contained only hybrids with import hybrids slightly exceeding the number of Bulgarian ones. In the case of sunflower there was equality with respect to tested Bulgarian and import varieties in terms of tested quantities (1 104 tons in total). The imported sunflower varieties slightly outnumbered the Bulgarian ones. The imported sunflower varieties were 100% hybrids while some of the Bulgarian varieties were from direct lines.

610 vegetable samples were tested, both Bulgarian and imported.

The samples of imported seed showed good results in terms of germination and purity. In 2003 no imported seed had to be returned or destroyed as non-standard. With respect to Bulgarian samples some batches did not comply with the requirements for analytical purity. All such batches were processed, analysed again for compliance and then certified.

In the electrophoresis laboratory in 2003 the analysed samples numbered 281, mostly from maize and sunflower hybrids and their predecessors. 17 samples proved non-standard in terms of varietal purity. An arbitrating analysis of sunflower hybrid seeds was made as well as two control checks. The number of control checks in 2003 was very small and in 2004 a substantial increase is planned with the aim of covering about 10% of the total number of analysed samples.

In the chemical laboratory 3 170 samples from 171 applicant varieties were tested. The laboratory presented to the expert committees on the approval of applicant varieties a

detailed comparison between the results from the analysed samples and the results obtained from varieties recognised as standard for the respective crop. In 2003 analyses were made with 64 variety standards.

In the technological laboratory samples from 84 applicant wheat varieties were tested. The analyses results were compared to the results from 24 wheat variety standards. The same approach was used for 4 applicant bean varieties, 8 applicant rice varieties which were compared to 2 variety standards each.

In 2003 a full control cycle was conducted with respect to maize and sunflower seeds – from Bulgarian origin and from import. The movement of the seed batches from trader to final customer and to their final application was monitored.

In 2003 the central laboratory organized the issuance of labels for all categories certified and marketed seed of Bulgarian origin. The labels fully complied with the European requirements with respect to size, colour, and information content.

#### **4.7. Control of the quality of fresh fruit and vegetables**

In 2003 the control of compliance with the requirements for the quality of fresh fruit and vegetables was conducted on the basis of Ordinance N 9 from March, 26th 2002.

In 2003 the administrative capacity development in the field of fruit and vegetable quality control continued. For the implementation of measure 270 from the action plan for 2004 it is envisaged that 16 inspectors will be hired. In 2003 the regional inspectors conducted compliance controls on the domestic market, as well as on export and import quantities. 129 compliance control certificates were issued. Significant number of the controls were aimed at introducing to the farmers and traders the requirements for quality labeling and packaging of fresh produce in accordance with the normative requirements.

In order to establish a database and to perform a risk analysis in 2003 information was collected from 1 014 farmers and traders of fresh fruit and vegetables.

#### **4.8. Control of agricultural and forestry machinery**

The responsibilities for the registration and control of the technical condition and safety of agricultural and forestry machinery were carried out by Technical inspectorate of the Ministry of agriculture and forestry.

These responsibilities include the following tasks:

- ✓ Control of the technical condition and safety of the machinery through conduct of annual, seasonal and thematic inspections.

By 31.12.2003 of the existing 2 753 caterpillar tractors 2 614 were duly registered. Of them 1 296 were subjected to technical inspections. Of the existing 28 853 wheel tractors 25 578 were duly registered. Of them 22 951 were subjected to technical inspections.

Data for the period 1999-2003 show that the number of technical inspections of tractors (both caterpillar and wheel) increased substantially. In 1999 the technical inspections numbered 12 650 while in 2003 the number of inspections reached 22 951.

Of the existing 8 143 combine harvesters 7 874 were duly registered and 6 070 were subjected to technical inspection.

Data on the technical inspections and registration are given in the below table, broken down by type of machinery (Table II.101)..

✓ Registration and preventive control of machinery

In 2003 as a result of the preventive control to ensure the safe and environment-friendly operation of machinery the inspectorate issued 259 precautionary protocols for operation of polluting pieces of machinery. 247 pieces of machinery were taken out of operation as they did not comply with the safety requirements. The inspectorate issued also 129 acts for offenses and 103 penalty injunctions. In 2003 controls were also carried with respect to work safety in agriculture.

✓ Control on granting and cancellation of licenses for operation with agricultural and forestry machinery

In 2003 the renewed and newly issued licenses numbered 5 121. Since 2000 the number of issued and renewed licenses has risen to 19 110. In addition 1 064 licenses for automatic chain-saws were issued.

**Table II.101.**

**Existing and registered agricultural and forestry machinery and conducted annual inspections in 2003**

№	Machinery type	Existing pieces	Registered pieces	Pieces subjected to annual technical inspections
1	2	3	4	5
	<b>Group A</b>			
1	Caterpillar tractors	2 753	2 614	1 296
2	Wheel tractors	28 853	25 578	22 951
3	Self-propelled chassis	1 214	1 164	731
4	Other self-propelled equipment	1 245	1 110	911
5	Tractor trailers, including:	20 553	15 361	9 995

6	Of general use	17 059	12 407	8 329
7	Of specialised use	3 494	2 954	1 666
8	Forestry equipment	856	751	465
	<b>Group B</b>			
9	Combine harvesters	8 143	7 874	6 070
11	Self-propelled silage harvesters	752	467	311
12	Other self-propelled equipment	1 117	1 005	630
	<b>Group C</b>			
13	Seeding and planting equipment	12 669	11 031	6 742
	Plant protection / fertilisation equipment			
15		6 031	5 112	3 258
16	Fodder harvesting equipment	7 418	7 040	3 803
17	Tillage equipment	46 204	39 973	24 192
18	Driers and others	446	343	189
19	Threshers and graders	2 867	2 069	1 284
20	Irrigation equipment	872	652	364
21	Forestry equipment	412	264	236

Source: TI

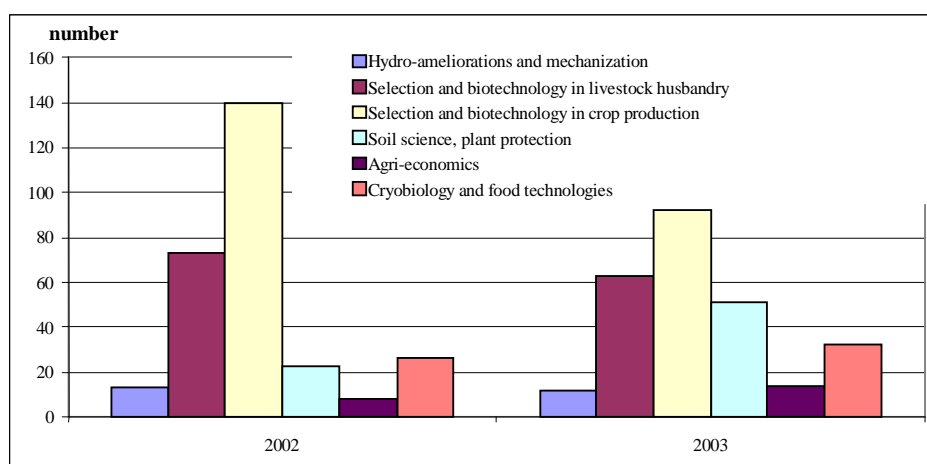
## 5. Science and education

### 5.1. Research

In 2003 the research institutes of the National Center for Agrarian Sciences (NCAS) developed 432 strategic and applied research projects and assignments, of which 264 were under the scientific programs of NCAS and 168 funded through bilateral and multi-lateral cooperation. The breakdown of projects and assignments by research field is given on Figure II.32

**Figure II.32.**

**Breakdown of NCAS projects and assignments by research field in the period 2002 - 2003**



In addition, projects were developed with the funding of the National research council of the Ministry of education and science, of the Ministry of environment and waters, and of other agencies.

### **Selection and biotechnology research in crop production**

The institutes of NCAS maintain a collection of over 100 000 samples of some 400 plants with precious traits with regard to selection efforts.

In the previous period the national collection was enriched with 1 515 new plant species of 103 varieties, of which 790 samples were from abroad, 602 from Bulgarian institutes and 123 as expedition material. The separate national collections include 66 533 plant species of core and regularly used collections. A database with quality assessment information on another 6 560 plant species was developed, whereas 1486 plant samples were identified from out of the collections of species with precious biologic traits.

In the field of selection and genetics research with wheat, three new varieties, selected by the Dobroudja Agricultural Institute – General Toshevo: “Zlatina” (group A), “Zlatitsa” and “Kristi” (group B). The varieties “Progress”, “Slaveia”, “Aglika” and “Mizia” are officially regionalized in Macedonia. The varieties “Antonovka”, “Boliarka”, “Neda” showed good resistance to frost. The variety “Polena” completed the cycle of state approbation, while the applicant variety “Antitsa” was undergoing a second year of approbation. 59 physiological stains of the powdery mildew were identified, 12 of which proved to be new. 4 standard physiological strains of the downy mildew were identified.

The following new varieties, selected by the Institute on plant genetic resources-Sadovo, were approved: wheat – “Yunak” and “Petya”, peanuts – “Cremena”, sesame – “Milena”, green peas – “Amitie” and “Picardie”. At the Executive agency for plant variety testing, approbation and seed grading the approbation procedure continued for the following new applicant varieties: 11 varieties of wheat, 2 of barley, 2 of durum wheat, 1 of oats, 1 of rye and 4 of rice.

Progress was achieved in the development of specialized paths of barley selection. The Institute for Agriculture-Karnobat presented for approbation two varieties of multi-row and two varieties of two-row barley, which are of better selection traits. Through the method of artificially induced adro-genesis and infection, the first variety lines, genetically resistant to rot.

Two new hybrids of sunflower – “Mussala” and “Merkurii” – from the Dobroudja Agricultural Institute were approved and were listed in the National varieties’ list, register A. For the first time in Bulgaria three original self pollinating lines of sunflower were approved and the hybrid XF 4946, jointly created with Pioneer, was included in the National varieties’ list in 2003.

The Obraztsov Chiflik Institute of Agriculture and Seed Science-Rousse presented for approval two varieties of oats, which comply with the requirements for inclusion of register A from the National varieties list. The oats selection line SL 30-1 was created and would be filed for approval at the Executive agency for plant variety testing, approbation and seed grading. For a three-year period the average increase in yield from that line was 14% above the country-standard. The testing procedure was ongoing for the applicant variety of spring oats N-2-7, designed for the production of foodstuffs for kids and of dietary foodstuffs.

Five new hybrids of maize - Kneja-511, Kneja-515, Kneja-517, Kneja M-611 and Kneja M-625 – from the Institute of maize were approved by the Executive agency for plant variety testing, approbation and seed grading. Three new lines were also created using a broad genetic base: one from the early, the mid-early and the mid-late maturation groups.

The first varieties of beans, having high level of resistance to bacterial leafroll and new genotypes of early bloom beans were presented for approval. The original variety of lentils “Bella” with large, reddish to white seeds was approved. On an infected plot 1910 plants were tested for resistance to the black and grew spots on sunflower.

The regional center for applied research and extension-Kroumovgrad created perspective varieties of tobacco: Kroumovgrad B-1328, B-1295, K-434, K-550 and fields lines 44 and 63. Five new varieties of Oriental tobacco and three new varieties of Virginia tobacco were presented for approval.

Three new varieties of cotton from the Institute of cotton and durum wheat-Chirpan (“Vega”, “Beli Lom – 393” and “Beli Iskar – 800”) were approved. They had higher yields than the country-average and improved quality parameters.

The applicant soybean variety of “Srebrina” from the Institute of Forage Crops-Pleven entered its third year of testing. From the previously certified varieties of soybean – “Pavlikeni 121”, “Daniela 97” and “Mira 96” – 3680 kg of basic seeds were obtained by the Institute.

The Institute of Horticulture-Plovdiv presented for approval 13 applicant varieties and F<sub>1</sub> hybrids: cucumbers – 5 F<sub>1</sub> hybrids, pepper – 3 varieties, and onion, broccoli, cabbage, green beans, potatoes – one variety each. The testing procedure for the following varieties [for divergence, homogeneity, stability] was completed: potatoes – “Rojen”, “Perun”; cucumbers – “Midori”, “Ideal”, “Toni”; and garden peas – “Iskar”, “Mussala”, “Pulpudeva”. The following varieties entered their first year of testing: tomatoes – “Pautalia”, onion – variety “Liaskovski 90”, cucumbers – varieties “Bisera” F<sub>1</sub>, “Kiara” F<sub>1</sub> and “Marina” F<sub>1</sub>.

The Institute of Fruit Growing-Plovdiv studied 22 apple varieties, resistant to rot. The following varieties were recommended for approval: “Prima”, “Pricilla”, “Liberty”, “Florina”, which are resistant to rot and “Primruga” and “Aurora”, the growing of which needed lower use of pesticides. Through the combination of in-vitro techniques with the methods of thermo- and chemo-therapy the institute reached 100% virus elimination of 3 diagnosed viruses with the “Remo” variety. As a result of the selection efforts of the institute

47 elite cherry varieties were selected, 25 of which were tested in Bulgaria and in three regions in France. Three applicant varieties were presented for approval to the Executive agency for plant variety testing. 10 walnut varieties were introduced: “Lara”, “Fernor”, “Ferjan”, “Fernet”, “Ser”, “Hartley”, “Chandler”, “Tisasesi”, “Milotay 10” and “Alcocentivani”. A collection of these varieties was established.

The Institute of Agriculture-Kyustendil proposed for inclusion in the National varieties’ list the cherry varieties “Vik”, “Ohridska”, “Priusadebnaya” and the apple varieties “Pilot”, “Priam” and “Monroe”. The Institute introduced new varieties for Southwest Bulgaria: 35 apple varieties, 7 pear varieties, 13 cherry varieties, 5 sour cherry and 1 plum varieties, 2 rootstock varieties for pear, and 2 rootstock varieties for cherry and sour cherry.

The Institute of Viticulture and Enology-Pleven developed a new refined scheme for production of vine rootstock. The Institute selected 24 dessert elite hybrids and 15 other hybrids with good resistance to powdery mildew. Various variety-rootstock combinations were studied. On the basis of technological characteristics of the wines from new and introduced varieties and hybrids, the B-117 and 61-57 hybrids were established as perspective for the Varna region. These varieties had higher level of resistance to low winter temperatures and mildew.

### **Livestock Husbandry**

An extensive study of dairy farms was carried out with respect to capacity, breed, milk productivity, the growth rate of heifers, the technological elements of the production process and the level of professional management. The results showed that the dairy farms with capacity of 26 to 50 cows were well-organized ones and demonstrated high levels of milk production. The results of 14% of the dairy farmers were classified as unsatisfactory and it was almost impossible for them to ever achieve good production practices. The Institute of Agriculture-Stara Zagora developed schemes for introduction of meat breeds “Ille de France” and “Mutton Sharole” into the sheep populations of Bulgaria and the establishment of meat sheep breeding sector.

A methodology was developed to register the meat color of lamb carcasses [up to 13 kg of weight] under the (S) EUROP scale. The conditions for the introduction of the EU system for carcass classification were being prepared.

The optimal technologies for the winter preparations, the accelerated development of wax cakes, for production of honey, queen bees and bee swarms under the two main beehive systems (Dadan Blatt and Lancaster) were established.

The Institute of fish breeding and aquaculture-Varna developed a technology for integrated breeding of fish and Peking ducks in pools.

The research station in Vratsa developed 8 new original genetically marked silk worms, 6 original sister lines, established in the method of periodical reciprocal selection, 2 original

breeds (Vratsa 54 and 55), established in the method of simple cross and 4 original synthetic lines (Vratsa 63, 64, 65 and 66) established in the methods of complex cross and back cross.

### **Soil science and sustainable agriculture technologies**

Methodologies (maps included) for assessment of the factors and potential risk of water and wind erosion of soil were established for the purposes of anti-erosion measure design. The radioactive status of soils and waters in the area of Kozloduy atomic power station and along the Mesta river was studied. Dangerous concentrations were not discovered.

The quantified relationships between the agro-system components were analyzed and on their basis a methodology for assessment of the impact of various agro-technical factors was developed with a view to achieving sustainable farming systems. The potential for phyto-remediation of main agricultural crops was also studied.

An agri-environment assessment of sludge from wastewater treatment facilities, from industrial facilities, from livestock husbandry was performed with a view to its effective, risk-free use in agriculture. Methods and systems for assessment, modeling and management with electronic means of moisture, heat and other soil properties were established.

### **Cryobiology and food technologies**

A preparation prescription and gels were developed, containing collagen, lavender oil, extract from geranium and geranium oil. The gels had pharmacological effect on various types of difficult-to-heal wounds. Bio-products of allogen and xenogen bone tissue were developed in different variants (granules of partially de-mineralized allogen spoigiose, collagen matrix from allogen spoigiose, bio-ceramics of de-protein xen-bone, bio-ceramics with trombocyte growth factor, etc.) for the purposes of dentistry.

6 variants of new functional foods were developed. 3 food additives were developed on the basis of antocians from red wines, vitamin C and vitamin E. The technological documentation for the production of the additives was developed.

The granule-metric composition and the physical and chemical parameters of flours used in bread production were determined in order to ensure durability in view of healthy nutrition. The usability of 5 white seed-free grape varieties for the production of dried products of medium moisture content was studied. A new growth regulator was developed – benzimidazol.

Preparation prescriptions and technologies were developed for production of boiled and smoked delicatessen from poultry meat of boiled hams from poultry meat in combinations of breast meat and thigh meat from broilers, hens, pork. The documentation for introduction of good production practices in can production facilities was developed.

### **Agricultural economics**



An assessment was made of the efficiency of farming entities on the basis of the efficiency in input use and the level of transaction costs.

Methods were developed to measure the competitiveness of agricultural products. Well-substantiated recommendations were issued for specialization into production of output, having comparative advantage: fruit and vegetable, grape, oriental tobacco, small hoof ruminants, sheep milk, essential oil products.

## **5.2. Education**

The state schools from the MAF system are 97. The schools are located in all regions of the country. Pleven and Plovdiv are regions hosting the largest number of such schools, with 10 and 8 of them, respectively. At the other end, Gabrovo, Pernik, Sliven, Smolyan regions host one school each.

95 schools are professional secondary schools/colleges and 2 are professional schools.

The latter schools offer professional training with the attainment of first and second degree of professional qualification and duration of four years. Pupils are enlisted in the schools after completion of VI grade.

The professional colleges offer professional training with attainment of second degree of professional qualification with duration of four years and training with attainment of third degree of professional qualification with duration of five or six years. The professional colleges may offer training for attainment of 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> degrees under a specified section of the overall professional curriculum.

From 2004/2005 school year the enrolment plan in the schools will be fulfilled in accordance to the Act on professional training and education. In 2003 MAF initiated a modification in the list of professions in the section “Agriculture, forestry and fisheries” as certified by the National agency for professional training and education.

Modifications were done in the legislative framework of the training to grant licenses and to cancel licenses for operation of agricultural and forestry machinery and equipment.

The Act on the modification of the Act on registration and control of the agricultural and forestry equipment (published in State Gazette 22 of March 11<sup>th</sup>, 2003) further developed the legislative framework for granting and canceling licenses for operation of agriculture and forestry equipment. The different types of licenses were defined: Tvk for operation of wheel and caterpillar tractors and their implements; Tvk-A, Tvk-F, Tvk-M for operation of specialized self-propelled agricultural, forestry and melioration equipment.

In pursuance to the previous article 13, para 2 of the Act on registration and control of the agricultural and forestry equipment, the terms and procedure for granting and cancellation of

licenses were determined jointly by the Ministers of agriculture and of education and science. With the latest modifications in the Act the ordinance on the terms and procedure will be issued only by the Minister of agriculture and forestry.

The new Ordinance 8 on the terms and procedure for granting and cancellation of licenses for operation of agricultural and forestry equipment regulates the following activities: issuance and cancellation of permits to offer training courses in the field; provision of training courses to acquire licenses; granting and cancellation of licenses; registration of institutions granted permit to offer courses.

The new ordinance extends the validity of the licenses to provide training courses from one to three years. .

### **5.3. Extension and consultancy**

#### **5.3.1. National center for agrarian sciences**

By the end of 2003 the research institutes of NCAS owned 329 certificates for new crop varieties and livestock breeds, issued by the patents' agency, including for wheat - 47, barley - 13, maize - 22, fodder crops - 23, technical crops - 24, vegetables - 78, tobacco - 17, perennials - 34, vines - 45, livestock breeds - 14, etc. Of all certificates issued in the country, NCAS owned 60%, with 23 new certificates for 2003 alone.

The crop varieties and hybrids developed by NCAS institutes accounted for 98% of the cereals and bean crops cultivated in the country, 70% of maize crops, 70% of sunflower, 80% of fodder crops and 65% of cultivated vegetable crops. The maintenance of precious varieties and the production of quality seed for 80% of these varieties and crops was done under the guidance of the researchers from NCAS units, who produced/selected these varieties in the first place. The livestock research institutes of NCAS house 75%-85% of the parent breed stock of cattle, buffalo, sheep, goat, swine and 100% of the preserved indigenous breeds.

The patent agency registered 176 applications from NCAS institutes for new crop varieties and livestock breeds by the end of 2003. As a result of the applied research work of NCAS 21 patents were registered, 13 trade marks, 22 models. 3 patents, 8 trade marks and 1 model were undergoing review during the year.

#### **5.3.2. National agricultural advisory service**

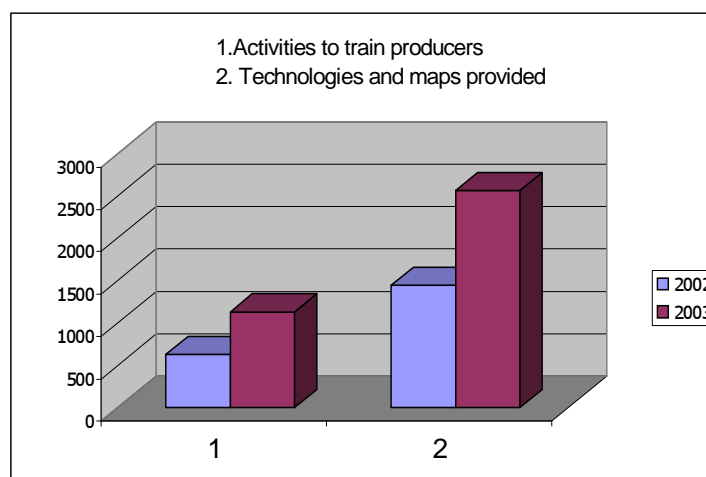
During 2003 the National agricultural advisory service continued its active work in assisting agricultural producers to restructure their farms and adapt it to European requirements, norms and standards.

To increase the knowledge and qualifications of agricultural producers, the experts from NAAS organized seminars, lectures, discussions, open days and demonstrations, at which the producers were acquainted in theory and in practice with the up-to-date problems in

agriculture.

The total number of activities conducted in all fields for 2003 was 1443, of which: 391 seminars, 186 demonstrations, 866 lectures and discussions (Figure II.33).

**Figure II.33**  
**NCAS activities**



The activities targeted at training of agricultural producers for 2003 increased by 1.3 times in 2003 compared to the previous year.

In 2003 the NAAS experts visited 3 897 farms and provided 27 827 consultations. In comparison to 2002 the provided consultations increased by 34%.

As a result of the assistance provided by the experts of the regional offices of NAAS 43 crop production farms and 29 livestock farms improved their economic results, and 18 projects were approved under the SAPARD program.

### **Information services**

To aid professional consultancy the data base of the NAAS information system was enriched with 540 new information materials in 2003.

The module “Library” of the information system was continually up-dated with specialized materials. An electronic version of this module is maintained in Internet. There more customers can access it. In 2003 the electronic module was logged on by 1 229 consumers (in 2002 this was done by 316 customers).

After the completion of the main structure of the Internet site of NAAS – [www.naas.government.bg](http://www.naas.government.bg) - in 2003 the site was further developed and enriched with

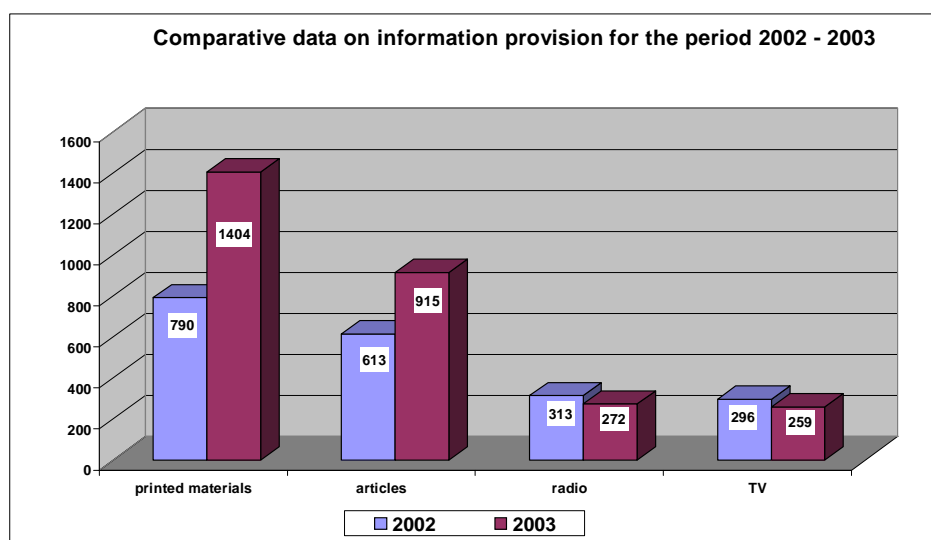
various pieces of information. As a result, the interest towards the site by customers increased with 295 to 380 loggings per week.

The comparative analysis of the data for 2002 and 2003 in the field of information services (illustrated in Figure II.34) shows strong increase in the publication of print materials. This compensates for the limited possibilities for on-site visits and consultations (due to the insufficient budget). The topics of the print materials are determined by the priorities of MAF in the field of rural development, by the specifics of the region, by the current issues, by the specifics of tillage practices in the season, by concrete queries and issues raised by farmers during meetings with them.

The decrease in radio- and TV- broadcasts (albeit insignificant) is explained with the fact that whereas in the previous year such broadcasts were used to popularize the role of NAAS, in 2003 the focus shifted to rural development priorities programs for alternative agriculture in Rhodopa mountain, for development of Northwest Bulgaria, for balanced fertilizer application, for dairy farming, for organic farming, etc.

In 2003 the number of printed materials increased twofold.

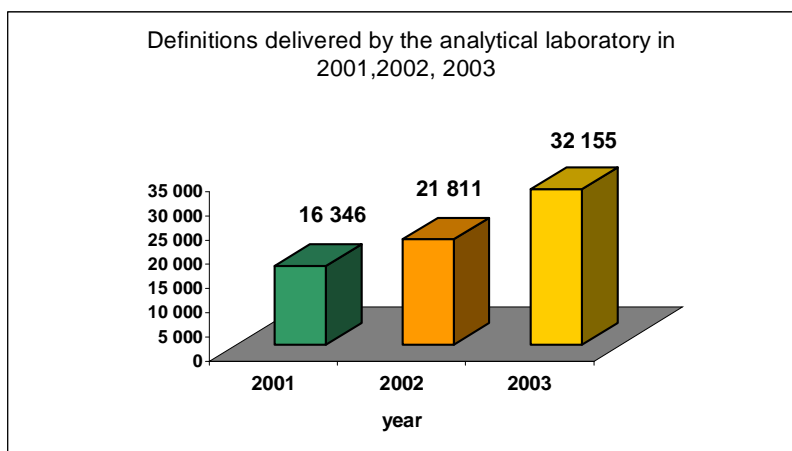
**Figure II.34.**



### **Analytical laboratory of NAAS**

The analytical laboratory of NAAS analyzed 5 563 samples in 2003 or with 47% more compared to 2002. The definitions delivered numbered 32 155. The number of definitions delivered increased in the last three years doubling from 2001 to 2003.

**Figure II.35.**



The number of agricultural producers using the services of the laboratory increased. Their number increased with 250 in 2003. Most of them (80%) are small and medium-sized farmers, i.e. the prime target group of NAAS services. Nonetheless, large tenants and farmers also used the services offered.

The largest share in the analytical work of the laboratory belongs to soil samples (at 96%) predominantly for the purposes of cereals, maize, sunflower cultivation. The trend continued from the previous years whereby grain producers were the most active customers of the laboratory. In 2003 the samples for perennial also increases, with 90% of the samples for new plantations.

The samples from crop output, feed mixes and waters numbered 211.

## **6. Sectors related to agriculture**

### **6.1. Animal feed production**

In 2003 the introduction of the main EC directives and regulations pertaining to animal feeds into the national legislation was completed.

On the basis of Ordinance 24 for the terms and procedure for approval and registration of producers and traders of animal feed, 180 producers of animal feed were registered, of whom 41 were approved, i.e. acquired the right to produce combined feeds with additives.

The total production of combined feed mixes from these producers totaled 409 993 tons, of which:

- 203 907 - for poultry (49.8%);
- 163 082 – for swine (39.8%);
- 21 060 - for cattle (5.1%);
- 4 571 - for small ruminants (1.1 %);
- 17 373 - others (4.2%)

The production of premixes totaled 1 200 tons.

In the last years the structure of production of combined feed mixes remained the roughly the same, with an decrease in poultry feed and increase in swine feed.

**Table II.102.**  
**Combined feed production by region in 2003**

№	Region	Combined feed						(tons)		
		Total	poultry	swine	cattle	small ruminants	other	For poultry	For swine	For other
1	3	4	5	6	7	8	9	10	11	12
1.	Blagoegrad	1003	140	699	101	60	3			
2.	Bourgas	36 189	3 862	24 005	1 685	1 181	5 456			
3.	Varna	3 812	1 791	788	97	0	1 136	53	23	
4.	Veliko Tarnovo	38 239	32 370	5 804	65	-	249	238	40	1
5.	Vidin	6 077	3 623	2 449	-	-	7	-	-	-
6.	Vratsa	7 453	7 209	244	-	-	-	456	11	-
7.	Gabrovo	11 070	5 283	3 472	952	452	911	-	-	-
8.	Dobrich	23 630	21 771	1 855	4	-	-	-	-	-
9.	Kardjali	2 362	2 060	260	26	-	16	-	-	-
10.	Kyustendil	331	51	277	-	-	3	3	-	-
11.	Lovech	22 736	8 600	8 733	2 345	88	2 970	-	-	-
12.	Montana	1 379	487	483	386	5	18	-	-	-
13.	Pazardjik	9 673	4 810	3 435	329	1 099	-	-	-	-
14.	Pernik	16 340	0	15 530	710	100	-	-	-	-
15.	Pleven	10 235	2 826	5 405	431	-	1 573	50	0.5	-
16.	Plovdiv	28 848	5 894	19 407	2 335	26	1 186	-	-	-
17.	Razgrad	1 286	795	491	-	-	-	-	-	-
18.	Rousse	5 775	1 870	3 430	373	-	102	-	-	-
19.	Silistra	10 544	1 214	8 985	24	321	-	18	1	-
20.	Sliven	61 210	41 749	15 865	2 903	413	280	-	-	-
21.	Smolyan	3 884	3 884	-	-	-	-	-	260	-
22.	Sofia-city	7 688	3 970	2 008	1 100	500	110	-	-	-
23.	Sofia region	7 024	3 270	3 402	99	27	226	31	8	0
24.	Stara Zagora	25 482	17 693	4 946	2 255	-	588	18	0.5	-
25.	Targovishte	15 766	4 787	10 547	161	8	263	-	-	-
26.	Haskovo	4 579	893	1 642	1 123	98	823	-	-	-
27.	Shoumen	30 822	22 393	6 521	569	55	1 284	-	-	-
28.	Yambol	16 305	612	12 399	2 987	138	169	-	-	-
		409 993	203 907	163 082	21 060	4 571	17 373	867	344	-
	%	100	49.8	39.8	5.1	1.1	4.2			

Source: MAF

**Note:** the data do not include the on-farm production of feed

The tendency in feed production for 2004 leads to increase combined feed production with poultry and swine feeds output remaining the almost the same and ruminant feed output on the increase.

### III. VITICULTURE AND WINE PRODUCTION

#### 1. Vineyard areas, average yields, grape production

##### Areas

In the period 2001-2003 the areas occupied by vineyards tended to decrease. In 2003 the vineyard areas totaled 131 069 ha. This number did not include very small fragmented vineyard plots. 7 100 ha were uprooted. New vineyard areas were established in the last couple of years with the assistance from State fund “Agriculture” and SAPARD. The size of these new areas, however, is too small to allow the steady maintenance of the area of fruit-bearing vineyards.

**Table III.1**  
**Vineyards areas, 2001 – 2004**

Year	Vineyard area	Including			ha
		Productive	Young plantations	Temporarily non-tended	
			Not yet fruit-bearing		
2001	151 185	146 995	9 935	4 190	
2002	145 198	129 998	9 450	15 200	
2003	131 069	103 019	2 688	28 050	
2004*	130 000	100 000	3 000	30 000	

Source: MAF, Agri-statistics

\* Forecast

28 050 ha (21% of the total area) were left altogether temporarily and no tillage/cultivation was applied. As hot spots of disease and pest infestation outbreaks these areas were dangerous for the nearby-located productive areas.

The productive areas totaled 103 019 ha. Due to various reasons (frost, infestation pests and disease) some 4 719 ha (5%) were not harvested in 2003. The productive harvested vineyard areas decreased by 19 018 ha and in 2003 were 95 612 ha (73% of the total area).

89 736 ha were occupied by wine varieties, which was with 18% less compared to 2002.

The area occupied by dessert varieties was 5 876 ha, which was 13% more compared to the preceding year.

Young vineyards, not yet in fruit-bearing age, totaled 2 688 ha.

The expert observations showed that vineyards planted with varieties having higher price, such as Chardonnay, Muscat Ottonel, Cabernet Sauvignon, Merlot, were well tended. The areas, planted with lower priced varieties, less sought after by the wineries, were tended less well.

The main reasons, related to the implementation of proper tillage, were the following:

- Inadequate and low quality soil preparation;
- High weed infestation, especially in privately-owned vineyards, occupied by low-priced varieties;
- Fragmentation of large vineyards into smaller plot, tended by different owners, applying different tillage practices

The areas, planted with wine varieties – 89 740 ha – had the following characteristics:

- Areas, planted with red wine varieties – 52 974 ha (59% of the wine variety vineyard area). These areas decreased by 7 983 ha compared to the previous year. Most them were located in the South central region – 38%; South east region – 19%; North central region – 14%; North west region – 13%. The areas, planted with red wine varieties, exceed those planted with white wine varieties: tenfold in the South west region, fivefold in the South central region and twofold in the North central region.
- Areas, planted with white wine varieties – 36 762 ha (41% of the wine variety vineyard area). These decreased by 11 749 ha compared to the previous year. Most of them are located in the North east region – 43% and South east region – 30%. The areas, planted with white wine varieties, exceeded those planted with red wine varieties fivefold in the North east region.

The process of establishing wine variety vineyards continued in 2004. There was increased interest to planting new areas, to grafting and rehabilitation of existing ones in pursuance to the Ordinance published in the State Gazette 60/04.07.2003. In the period January 1<sup>st</sup> – August 27<sup>th</sup>, 2004, the Executive agency on vine and wine issued 78 acts for the re-planting of wine variety areas totaling 2 000 ha.

The interest towards the acquisition of rights to plant wine varieties from the National reserve remained inadequate. The reason for this was the impossibility to use the act for the acquisition of such rights for the purposes of applying under SAPARD. For the period January 1<sup>st</sup> – August 27<sup>th</sup>, 2004, the Executive agency on vine and wine issued 16 acts for planting of wine variety vineyards from the National reserve totaling 2 100 ha.

### **Average yields**

The average yield of wine grape in 2003 was 4 266 kg/ha. In comparison to 2002 the yield increased by 20%.



In separate micro-regions the yield varied in a wide range – from 2 888 kg/ha to 5 038 kg/ha – depending on the climatic conditions and the tillage practices employed. The highest yield was obtained in the South east region – 5 038 kg/ha, followed by the South west – 4 883 kg/ha, the North west – 4 278 kg/ha, the South central – 4 198 kg/ha, the North east – 4 076 kg/ha and the North central – 2 888 kg/ha.

The average dessert grape yield for 2003 was 3 907 kg/ha.

### **Grape output**

According to the data from the Agri-statistics directorate of MAF in 2003 grape output totaled 382 800 tons of wine grape (which was close to the 2002 level). The grape produced from small garden plots exceeded several times the volume reported for the previous year and totaled 27 800 tons.

The largest share in the total output belonged to the South east region (Bourgas, Sliven, Yambol) and the South central region (Kardjali, Pazardjik, Plovdiv, Smolyan, Stara Zagora and Haskovo) with 28 % each, North east (Varna, Dobrich, Razgrad, Silistra, Targovishte and Shoumen) – 20 %, North west (Vidin, Vratsa and Montana) – 9 %, North central (Veliko Tarnovo, Gabrovo, Lovech, Pleven and Rousse) – 8 % and South west (Blagoevgrad, Kyustendil, Pernik, Sofia-wider region and Sofia city) – 7 %.

### **Forecast for 2004**

It is expected that in 2004 the total grape output would reach 350 000 tons of wine grape, which is with 10 % less compared to the preceding year, due to the lower average yield of about 4 000 kg/ha. For harvest 2004 it could said that the early stages of vine development were very favorable but the later stages endured bad climatic conditions and phyto-sanitary conditions.

The expert observations showed that the quantity and quality of grape varied in a wide range for the different vineyards. The vineyards tended by large tenants, wineries and well-off cooperatives, where the tillage and phyti-sanitary requirements were adhered to, are expected to yield quality output of some 8 000 – 10 000 kg/ha. The older vineyards, for which only partial care was taken, are expected to yield much less in terms of quality and quantity (3 000 – 4 000 kg/ha). There vineyards, left untended, from which the bare minimum of yield is expected.

## **2. Wine production**

In 2003 the wineries/cellars processed in total 397 500 tons of grape, including 14 700 tons from small garden vine plots. Of these, 369 300 tons were processed to produce wine, and 28 200 tons were processed to produce alcoholic drinks and other products.

Wine produced totaled 2 313 581 hectoliters

## **2.1. Commercial production**

223 600 tons were processed commercially in 2003, which was 36 % more compared to the previous year.

The red wine grape output totaled 126 800 tons (57 %). Most of it was from the varieties Cabernet Sauvignon – 29%, Merlot – 29% and Pamid – 26%.

The white wine grape output totaled 96 800 tons (43 %). Most of it was from the varieties Rkatsiteli – 21%, Misket Cherven – 19%, Muscat Ottonel – 16% and Dimiat – 16%.

The increase in the amount of purchased grape was related to a number of factors. In 2003 most of the wineries changed their owners. The some of the new owners increased the amount of purchased grape and showed keen interest in the establishment of new vineyards. The financial standing of some wineries was improved. The quality of the output in 2003 was the best in the last few years.

In total 1 533 323 hectoliters of wine were produced, including 349 110 hectoliters (23 %) of quality wines, 867 519 hectoliters (56 %) of table wines, 313 747 (20 %) hectoliters of regional wines, 2 027 hectoliters of sparkling wines and 920 hectoliters of specific wines (aromatized, sweet, etc.).

In 2004 it is expected that wineries will purchase some 200 000 tons of grape.

## **2.2. Home processing**

The downward tendency in the amount of home processed grape continued in 2003. In 2003 home processed grape totaled 157 300 tons (54 %), which was with 28 % less compared to the previous year. Of it 145 700 tons were processed to make wine. 780 258 tons of wine were produced.

## **3. Government policy in the field of viticulture and wine production**

In 2003 the wine and spirits act was amended. Certain inconsistencies and omissions with respect to sector management and controls were rectified.

The transfer of the regulation of the registration regime from lower tier ordinances to the act itself was a result of the exceptional importance of vineyard farms registration system. The registration of vineyard farms was an obligatory element for the management and allocation of rights to plant wine variety wines on the territory of Bulgaria.

The establishment of such a register began with a PHARE project – BG99-IB-AG-01-D. The following results were achieved under this project:

- The registration of the vineyard farms was initiated;
- A cartographic database was established in two pilot villages. Four information layers were tested and loaded into a geographic information system: land cadastre, digital aerial snapshots, location of vineyards as declared, snapshots from the on-site checks with GPS.
- An integrated information system was established to manage the productive viticulture potential in Bulgaria as a key component of the management and control of the sector. The construction of the system started in the beginning of 2002 under project PHARE 9913-06-01/IT and was completed in the end of 2003. The information system enables the Executive agency on vine and wine to maintain and manage a National reserve of rights for planting, up-rooting, re-planting and grafting wine vineyards.

The future activities of the Agency will be focused on:

- Registration of vineyard farms;
- Loading data from the declarations on the location of the vineyards;
- Loading of the digital models of the maps and register of land restitution data [in the format of ZEM files]. These ZEM files were created for all vineyards in the country as a result of the technical implementation of the land ownership and use act.

The registration of the vineyard farms is planned as follows:

<b>Year</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
<b>Area (ha )</b>	14 812	3 548	68 960	153 500

By April 2004 the following results had been achieved:

- 15 900 ha of vineyards were registered;
- Data for 1 441 farms with total area of 7 611 ha of vineyards were loaded into the information system;
- 500 ZEM files on village territories on which there are vineyard lands were loaded.

The wine and spirits act was modified to include new texts, improving the existing regimes of management with respect to quality and regional wines. An addition was made to allow the setting up of a fund “Bulgarian wine”, the purpose of which will be to assist the organization of advertising campaigns, participation in fairs, exhibits, promotions, and other activities related to the promotion of Bulgarian wines. The fund is a prime example of partnership between the government and the private sector in an attempt to elevate the prestige of Bulgarian wine.

Thus, State fund “Agriculture” will provide annual subsidies in an amount, equal to the sum, collected as voluntary installments from wine makers. The fund “Bulgarian wine” will finance only projects of wine makers, who have made voluntary installments. The financial assistance will be proportional to the installment made.

The general assembly of the National wine and vine chamber, held on 26<sup>th</sup> of March, 2004, established the size of voluntary installment at no less than 5 000 leva with respect to the effective management and use of the accumulated funds.

All wine makers, who wished to take part in the fund and to get financing from it in 2004, made their voluntary installment by 31<sup>st</sup> of March of 2004.

The following amendments were made in the lower tier regulations in the sector:

- Ordinance for the permitted enology practices and processing and the control on their conduct

The ordinance was modified in its part related to the terms and procedure for declaring the processing with respect to enhancement and acidification of grape and wine products.

- Ordinance on the terms and procedure for the registration, licensing, cancellation of licenses, the data to be registered, the method of record keeping, the contents and format of declarations on the harvested output and the available quantities, the control on the licensed entities and their activities

The changes in the Ordinance were done in order to ensure effective management and control of the viticulture and wine making potential.

- Ordinance on the accompanying documents for the transport of local and imported wines, grape and wine products, spirits, distilled liqueurs

The changes in the Ordinance were related to the introduction of an obligatory document for the transport of grape.

- Ordinance on the terms and procedure for planting new vines, re-planting, up rooting, grafting of vines.

The changes in the Ordinance it was specified that the municipal units of MAF were the units issuing layouts of the agricultural plots. The layout was needed in order to apply for the acquisition of rights for new planting and re-planting from the National reserve.

- Ordinance on the marking and merchandising of wines, spirits and wine and grape products

The change revoked the limitations to the merchandising of Rosentaler wine.

The government financial assistance to viticulture and wine making was done through State fund “Agriculture” and SAPARD (See section II, 2.10.4 and 2.13.3).

## IV. FISHERY

### 1. Production and catches of fish in 2003 and forecast for 2004

The fishery and aquaculture Act introduced a regime of permits for commercial fishing. All fishing activities in the Black Sea, the Danube river and the domestic reservoirs, with the exception of fish breeding, were subjected to licensing. The Executive agency for fishery and aquaculture (EAFA) through its regional services issues each year permits to all entities, conducting fishing activities. The permits contain description of what is to be fished, the fishing vessels to be used, the fishing equipment. The quantities and the types of fish caught, the region where fishing took place, the type of fishing equipment used are recorded in fishing ledgers. A registrar of fishing vessels was established as part of the State ship registrar. All activities related to the conservation and management of fish resources, the control on fishing equipment, the licensing of fishing activities and the establishment of fishing areas are guided by EAFA.

In 2003 EAFA issued 4 488 permits for commercial fishing. Of these, 2 140 were for Black Sea fishing, 1 611 for Danube river fishing and 737 for fishing in domestic reservoirs.

According to data from the agency in 2003 the total catches of fish and aquaculture decreased with 19% compared to the preceding year and was 12 495 tons.

Table IV.1 shows the breakdown of catches by type of fish and aquaculture. It is evident that there is decrease in all categories , with the sole exception of fresh water fish catches.

**Table IV.1**  
**Fish and aquaculture catches**

	<i>(tons)</i>		
	2002	2003	2004*
Sea fish species	12 680	9 813	11 500
Rapana, mussels and shrimps	754	340	500
Migratory (sturgeon)	24	16	18
Migratory (Danube herring)	141	67	100
Danube fresh water fish	364	464	450
[from] Domestic reservoirs	1 457	1 795	1 800
Total fish catches	15 420	12 495	14 368

**Source:** EAFA

\* Forecast

In 2003 the catches of Black sea fish totalled 9 813 tons, which was some 22.6% less compared to the previous year. The decrease was due to lower catches of sprat, which usually accounted for over 90% of Black sea fish catches. The registered drop in sprat catches was 21%, down to 9 154.5 tons.

Another major object of commercial fishing – the anchovy – also registered a decrease in catches with 45% compared to the previous year (from 237 tons in 2002 to 131 tons in 2003).

The catches of anchovy were lower than the country potential could afford as there was lack of adequate fishing equipment for that purpose.

Among the more precious sea fish species, the turbot was subjected to over-fishing due to its high sale prices. In order to protect this fish the Ministry of agriculture and forestry determined an annual quota for fishing on the basis of the estimated resources. In 2003 the turbot catches totalled 40.8 tons, against an annual quota of 50 tons. For 2004 the quota was reduced to 40 tons.

**Table IV. 2**  
**Fish and aquaculture catches from the Black Sea**

(tons)		
Type of fish	2002	2003
<b>Migratory</b>		
Great sturgeon; <i>Huso huso</i>	3.5	0.6
Stor sturgeon; <i>Acipenser stellatus</i>	3.0	0.3
Russian sturgeon; <i>Acipenser gueldenstaedti</i>	2.0	-
Total sturgeon family	8.5	0.9
Shad (Danube herring) <i>Casp.Pont./Alosa pont.</i>	106.3	55.8
<b>Sea fish</b>		
Sprat; <i>Sprattus sprattus</i>	11 595.0	9 154.5
Horse mackerel; <i>Trachurus mediterraneus ponticus</i>	141.5	141.6
Bonito; <i>Sarda sarda</i>	-	22.6
Turbot; <i>Psetta maotica</i>	135.5	40.8
Anchovy; <i>Engraulis encrasicolus ponticus</i>	237.0	131.0
Gobies; <i>Gobidae</i>	141.5	125.2
Spiny dogfish; <i>Squalus acanthias</i>	100.0	51.3
Grey mullet; <i>Mugil cephalus</i>	71.0	32.6
Garfish; <i>Belone belone</i>	33.6	8.3
Bluefish; <i>Pomatomus saltatrix</i>	101.5	18.2
Little mullet; <i>Liza saliens</i>	17.7	15.6
Atherina; <i>Atherina mochon pontica</i>	0.1	0.4
Red mullet; <i>Mullus barbatus</i>	33.0	35.9
Midget; <i>Merlangius euxinus</i>	15.5	12.9
Eel-pout; <i>Gaidropsarus mediat.</i>	20.0	
European bass; <i>Dicentr.labrax/Morone labrax</i>	11.0	0.3
Flounder; <i>Solea nasuta</i>	9.5	9.0
Fluke; <i>Platichthys flesus luscus</i>	9.0	1.0
Spicara spp.	-	10.0
Black sea mackerel; <i>Scomber scobrus</i>	-	0.5
Golden grey mullet; <i>Liza aurata</i>	7.6	1.3
<b>Sea fish sub-total</b>	12 680.0	9 813.0
<b>Other sea organisms/aquaculture</b>		
Rapana; <i>Rapana spp.</i>	698.0	324.6

Black sea mussel; <i>Mytilus galloprovincialis</i>	55.0	15.1
Common shrimp; <i>Leander spp.</i>	0.5	0.1
<b>Total</b>	<b>13 548.3</b>	<b>10 209.5</b>

Source: EAFA

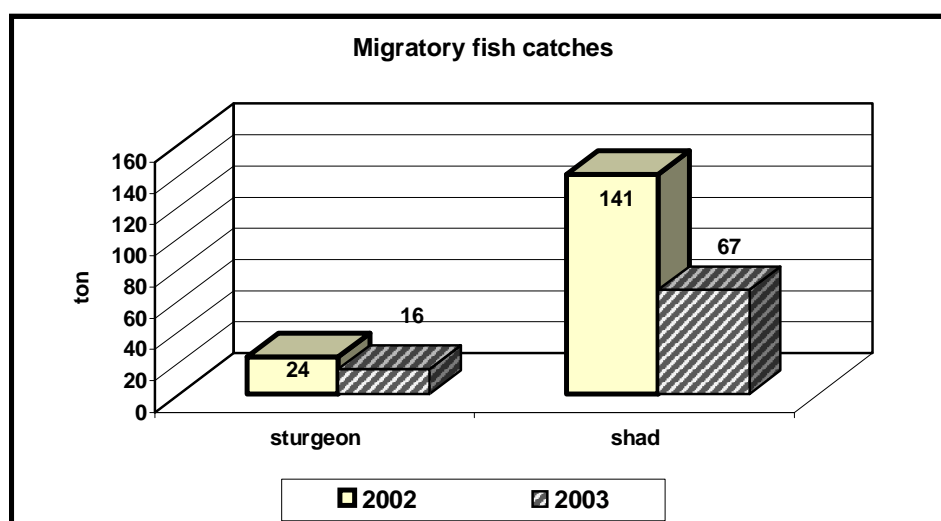
The catches of rapana, mussels and shrimps totalled 340 tons in 2003, which was 55% less compared to the preceding year. The catches of rapana dropped with 53.4% compared to 2002 level and totalled 342.6 tons in 2003.

There was an increased interest towards rapana due to the high sale prices and export potential. It was necessary to establish a balance between the fishing for rapana and the need to maintain its population at sustainable levels as well as the need to protect sea bottom ecosystems. Bulgaria prohibited the bottom trawling for rapana.

In 2003 the catches of black mussel was 15 tons, which was with 73% less than in 2002. The catches of shrimps also dropped significantly – by 80% compared to 2002.

The catches of migratory fish from the Black Sea and the Danube river also dropped in 2003 (see below figure).

**Figure IV.1.**



The fishing and trade with sturgeon fish (a protected species) is regulated by the convention for international trade with species threatened by extinction (CITES). In accordance to estimated sturgeon fish resources, an annual fishing quota is set for the purposes of caviar production. In 2004 the quota was 22 tons (the 2003 quota was set at the same level).

In 2003 a drop was registered in the catches of sturgeon fish – 16 tons (33.3 % compared to the previous year).

A substantial drop was registered in the catches of Danube herring. The 2003 catches were 67 tons (52% drop compared to the previous year).

In 2003 the total catches in the Danube river amounted to 490 tons, which was with 18.3% more compared to the previous year. The increase was due to the higher catches of fresh water fish (which were 464 tons or an increase of 27.3% compared to 2002). The catches of migratory fish in the river dropped.

**Table IV. 3**  
**Danube fish catches**

Species	(tons)	
	2002	2003
Migratory		
Shad (Danube herring); <i>Casp.Pont./Alosa pont.</i>	34.5	11.5
Migratory sturgeon family		
Beluga (Great sturgeon); <i>Huso huso</i>	9.9	8.2
Russian sturgeon; <i>Acipenser gueldenstaedti</i>	1.2	1.0
Stor sturgeon; <i>Acipenser stellatus</i>	1.7	1.31
Sturgeon family		
Sterlet; <i>Acipenser ruthenus</i>	2.8	4.5
Total sturgeon family	15.6	15.1
Fresh water Danube fish		
<i>Salvelinus fontinalis</i>	0.8	-
European catfish; <i>Silurus glanis</i>	22.0	45.5
Pike perch; <i>Lucioperca lucioperca</i>	17.2	33.4
Barbell; <i>Barbus barbus</i>	100.0	51.8
<i>Lota lota</i>	5.0	3.0
Bleak; <i>Alburnus alburnus</i>	14.8	29.9
Bream; <i>Abramis brama</i>	24.7	59.8
Asp; <i>Aspius aspius</i>	14.1	14.7
Undermouth; <i>Chondrostoma nasus</i>	15.5	19.5
Silver carp; <i>Hypophthalmichthys molitrix</i>	19.8	28.8
Bighead carp; <i>Aristichthys nobilis</i>	13.0	9.1
<i>Carassius sp</i>	39.6	15.7
Grass carp; <i>Ctenopharingodon idella</i>	9.0	19.2
Carp; <i>Cyprinus carpio</i>	17.7	32.7
Pike; <i>Esox lucius</i>	5.0	3.9
<i>Ictiobus Spp.</i>	-	
River trout ( <i>Salmo trutta fario</i> )	0.5	-
Brook trout ( <i>Oncorhynchus mykiss/Salmo gairdneri irideus</i> )	0.3	-
River perch; <i>Perca fluviatilis</i>	1.9	5.8
<i>Vimba vimba</i>	12.5	23.8
Ide; <i>Leuciscus idus</i>	1.2	13.6
<i>Rutilus rutilus</i>	2.0	13.4
Chub; <i>Leuciscus cephalus</i>	5.0	5.1
Rudd; <i>Scardinius erythrophthalmus</i>	4.0	9.7
Gobies; <i>Gobiidae</i>	1.3	1.5
<i>Chalcalburnus chalcoides</i>	0.7	9.1



Tench; (Tinka tinka)	-	0.7
Eastern bream; <i>Abramis sp.</i>	1.0	1.7
<i>Pelecus cultratus</i>	0.5	0.8
Black (Balkan) barbell; ( <i>Barbus meridionalis petenyi</i> )	0.2	0.8
European river conger ( <i>Anguilla anguilla</i> )	-	0.1
Various other species	15.2	10.5
Total fresh water Danube fish	364.3	463.6
Grand-total	414.4	490.1

Source: EAFA

Owing to the enhanced control of fishing the records provided by the fishermen were improved.

The implementation of the National restocking program aimed at restoring the fish stocks and species abundance in the Danube as the stocks in the river kept diminishing in the recent years.

In 2003 the catches in the domestic reservoirs/rivers amounted to 1 795.4 tons, which was with 23% more compared to the previous year. The amateur/leisure fishing takes place along the domestic reservoirs mostly and is recorded as such.

**Table IV.4**  
**Fish and aquaculture catches from domestic reservoirs/rivers**

Species	(tons)	
	2002	2003
Trout family; <i>Salmonidae</i>		
River trout; <i>Salmo trutta fario</i>	16.0	2.4
Brook trout; <i>Salmo gairneri</i>	21.4	46.5
<i>Salvelinus fontinalis</i>	5.6	0.4
Pike family; <i>Esocidae</i>		
Pike; <i>Esox lucius</i>	5.8	7.2
Carp family; <i>Cuprinidae</i>		
Carp; <i>Cyprinus carpio</i>	521.2	752
Silver carp; <i>Hypophthalmichthys molitrix</i>	307.2	388.9
<i>Carassius auratus</i>	247.2	307.4
Grass carp; <i>Ctenopharingodon idella</i>	23.2	29.5
Black carp; <i>Mylopharringodon piceus</i>	2.0	3.6
Rudd; <i>Scardinius erythrophthalmus</i>	44.7	35.2
Bream; <i>Abramis brama</i>	5.5	29.8
Asp; <i>Aspius aspius</i>	1.3	3.0
Chubb; <i>Leuciscus cephalus</i>	17.3	13.1
Bleak; <i>Alburnus alburnus</i>	19.4	23.3
Undermouth; <i>Chondrostoma nasus</i>	17.1	14.2
Tench; <i>Tinca tinca</i>	3.1	4.2
<i>Rutilus rutilus</i>	14.2	10.1
Barbel; <i>Barbus barbus</i>	4.3	1.2
Black (Balkan) barbell; <i>Barbus merid. petenyi</i>	9.9	5.3
Maritsa barbell; <i>Barbus cyclolepis</i>	0.8	1.0

<i>Chalcalburnus chalcoides</i>	1.5	2.6
<i>Vimba vimba</i>	2.0	1.6
Idc; <i>Leuciscus idus</i>	0.2	0.7
Catfish family; <i>Siluridae</i>		
European catfish; <i>Silurus glanis</i>	34.1	25.9
American catfish family; <i>Ictaluridae</i>		
American catfish; <i>Yctalurus punctatus</i>	18.2	11.3
Perch family; <i>Percidae</i>		
River perch; <i>Perca fluviatilis</i>	27.4	42.3
Pike perch; <i>Stizostedion lucioperca</i>	18.1	25.1
Lake crayfish; <i>Astacus leptodactylus</i>	7.7	3.5
Various other species	61.0	3.1
Grand-Total	1 457.4	1 795.4

Source: EAFA

According to data of EAFA in 2003 the operating fish breeding farms increased in number reaching 185. The introduction of the registration of entities, dealing in fish breeding and aquaculture under the Fishery and Aquaculture Act, the reporting of production results of these farms was improved.

**Table IV. 5**  
**Production of fingerlings and fish for consumption in the fish breeding farms**

Species	Fingerlings (number)		Fish (tons)	
	2002	2003	2002	2003
Carp	4 238 166	5 019 000	1 099.0	1 091.0
Silver carp	250 000	208 000	50.0	72.0
Bighead carp	1 378 483	2 412 500	339.0	281.0
Grass carp	289 400	139 300	34.0	63.0
Black carp	10 000	20 000	0.4	0.004
European catfish	173 500	76 150	37.0	6.0
American catfish	13 000	200 000	20.0	174.0
Tench	55 000	40 000	1.4	0.4
Pike	13 040	10 000	3.0	2.4
Brook trout	12 631 395	5 238 620	961.0	880.0
Balkna trout	317 900	479 000	11.0	4.4
Salvenius foutinalis	2 723 000	1 720 000	52.0	144.0
Russian sturgeon	65 000	205 606	80.0	144.0
Siberian sturgeon	-	-	-	2.0
Sterlet	-	-	-	0.3
Great sturgeon	-	21 383	-	3.4
Lake salmon	5 000	5 000	0.15	0.005
Carassius sp	-	-	83.0	4.5
Pike perch	10 000	-	2.0	-
Bester (hybrid)	-	-	-	5.3
Black Sea mussel	-	-	-	15.0
Various other species	-	-	6.0	5.0
Grand-Total	22 172 884	15 794 559	2 778.9	2 898.0

**Source:** EAFA

The need to maintain the fish stocks at sustainable levels and to increase the stocks of the valuable fish species determined the production of fingerlings.

According to data from EAFA in 2003 the production of fingerlings in the fish breeding farms was with 29% less compared to the previous year. The production of fingerlings in 2003 totalled 15 794 559. The decrease in number of fingerlings was due to the lower production of sturgeon family fingerlings, which dropped by 52.5% compared to the previous year. Nonetheless with certain fish species the production of fingerlings increased in 2003.

In 2003 the total production of fish for consumption by the registered fish breeding farms was 2 898 tons (4.3% more than in 2002). The increase was due to the higher production of fingerlings in 2002.

Most of the production of fish for consumption was of carp and brook trout. In 2003 the production of carp totalled 1 091 tons (37% of the total production of fish for consumption).

The production of fish from the trout family amounted to 1 028 tons, of which brook trout – 880 tons; Balkan trout – 4.4 tons and salvelinus trout – 144 tons. The production of trout in 2003 increased slightly with 0.4%. However the production of brook trout decreased by 8%. Only the production of salvelinus trout increased by 80%.

In 2003 the production of American catfish increased 8 times reaching 174 tons. This increase was due to the higher demand on the European market of white fish meat.

The production of bighead carp in 2003 dropped substantially down to 281 tons, which is with 17% less compared to the previous year.

In 2004 it is expected that the total catches of fish and aquaculture will increase by about 15% and will reach 14 368 tons, of which sea fish – 11 500 tons, fresh water fish – 2 250 tons, rapana (whelk), mussels and shrimps – 500 tons, migratory fish – 118 tons. The expected increase in registered catches is based on the assumption that the improved control of fishing activities will reduce illegal fishing as well as on the assumption that the lifted ban on export of fish to the EU will stimulate production.

## **2. Consumption and processing of fish and fish products**

According to 2003 data of the National statistics institute the average annual consumption of fish and fish products increased with 8.5% to 3.8 kg per capita compared to the previous year. These data were based on the monitoring of household consumption and did not account for the consumption in restaurants, mess halls, and other food and drink facilities.

The volume of fish processed in 2003 reached 5 112 tons. Most of it was for fish cans (60%). Compared to the previous year there was a decrease of 13% due to the lower fish catches.

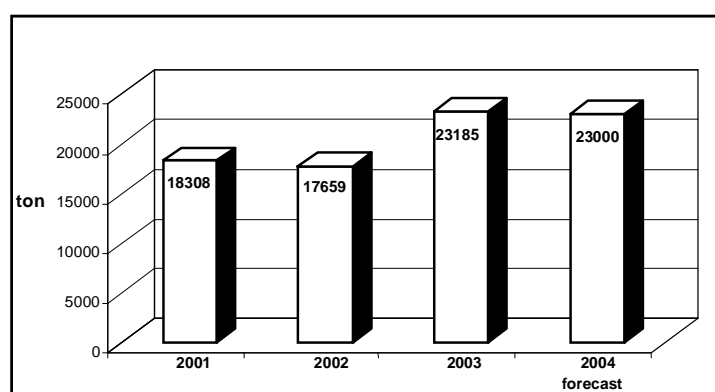
From the beginning of 2004 the State veterinary and sanitary control service will start inspections of the fish processing facilities and will close those of them which do not comply with the EU veterinary and sanitary requirements. There is no transitional period for this sector.

### 3. Imports and exports of fish and fish products

#### 3.1. Imports of fish and fish products

According to the data of the Customs Agency the import of fish and fish products in 2003 increased by 31.3% reaching 23 185 tons (at cumulative value of 16 723 434 USD). The increase in imports met the domestic demand which could not be satisfied by the reduced fish catches in 2003 (a reduction of 25%). Apart from that imports enriched the assortment of fish species supplied (many of which cannot be bred in Bulgaria) to the benefit of the consumers and of the processing industry.

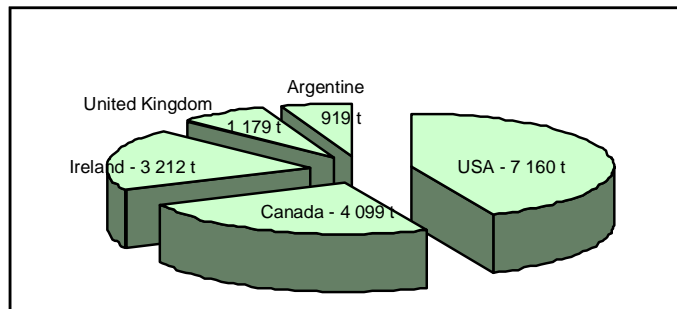
**Figure IV.2**  
**Imports of fish and fish products for the period 2001-2003 and forecast for 2004**



As usual 90% of the imports were of frozen fish which in 2003 reached 20 429 tons. Compared to the previous year this type of imports increased by 29.4%. The frozen fish imported included species that cannot be bred in Bulgaria – salmon, herring, sardine, dogfish, hake, etc. The value of frozen fish imports was 11 320 621 USD or average price per ton of 554 USD (border price excluding import duties, VAT, transportation and other costs). The majority of fish imports were of mackerel (over 80%) reaching 16 740 tons. The average import price of frozen mackerel was 520.9 USD per ton. In Bulgaria there is no commercial fishing of mackerel and therefore the demand for consumption and of the processing industry must be met by imports.

The major trading partners from which Bulgaria imports fish include the USA (35% of the total imports), Canada (20%), Ireland (15.7%), UK (5.8%), Norway (4.5%).

**Figure IV.3.**  
**Imports of frozen fish in 2003 (tons)**



Compared to 2002 there was a significant increase in the imports of frozen fish from the US and Canada (by 300% and 400%, respectively), while the imports from Norway dropped by 89%. This was due to the increase of average import price from Norway – with about 27% from 596 to 756 USD per ton.

The import of fillet and other types of fish meat increased by 61.9%, reaching 1 128 tons in 2003. The imports consisted of frozen fillet and meat from species which are not typical for Bulgaria. Although they are higher-priced the demand for them was on the increase as they could easily be cooked. As delicatessen they are offered in the restaurants. Large imports of salmon, dogfish, tuna, hake, cod fillet were done from Spain, Germany, Argentina, The Netherlands. The average price of these imports varied depending on the destination from 1 150 to 3 900 USD per ton with salmon fillet the most expensive and dogfish fillet the least expensive.

The imports of fresh or cooled fish in 2003 increased and reached 525 tons with most imports coming from Turkey and Greece. The average import price varied widely depending on the fish species – salmon 4 987.2 USD per ton, horse mackerel 446.9 USD per ton, tuna 433.7 USD per ton.

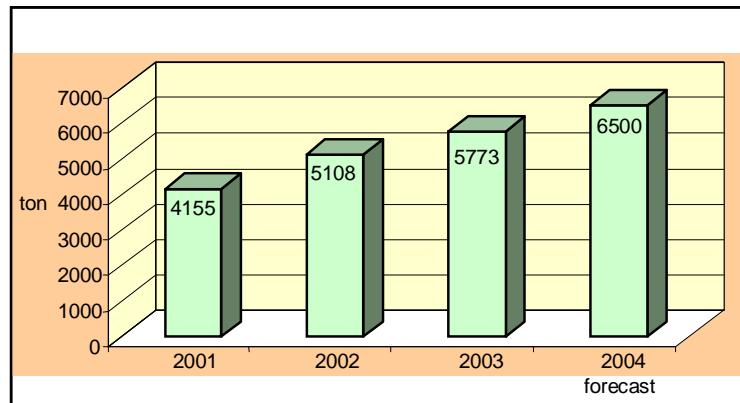
With order N RD 09-193 from 16.04.2004 the minister of agriculture and forestry imposed a ban on the imports of Baltic Sea salmon as of 11.05.2004. This ban was prompted by the official information of the Ministry of food, agriculture and fishery of Denmark that high levels of dioxin were detected in Baltic Sea salmon. The ban covered the EU countries as well as the new member states.

It is expected that in 2004 the imports of fish and fish products will be about the same as in the previous year reaching 23 000 tons. To satisfy consumer demand and enrich the assortment of fish supplied the imports will involve mainly frozen fish from species which cannot be bred or caught in Bulgarian territorial waters.

### **3.2. Exports of fish and fish products**

In 2003 an increase of fish and fish product exports was registered. The increase was 13% and the total volume of exports reached 5 773 tons (at cumulative value of 9 660 070 USD).

**Figure IV.4.**  
**Fish and fish product exports**



The increase was due to the lifted ban on exports of fish, fish products and aquaculture from Bulgaria to the EU. The ban was introduced in 1999 due to the fact that processing facilities and laboratory control equipment in Bulgaria could not comply with the EU requirements.

Bulgaria already has 4 processing facilities approved to export fish and fish products in the EU. Two of them can export caviar and two – processed sea fish. It is expected that in the period 2004-2005 the number of facilities licensed for export to increase to 10.

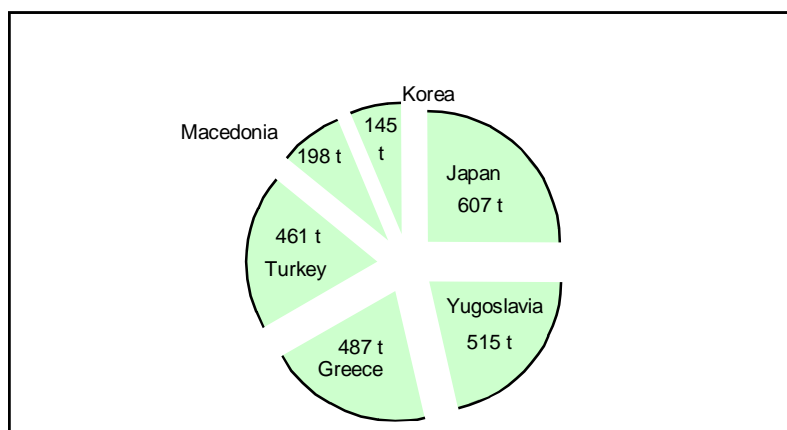
The total exports in 2003 included 5 516 tons of fish and fish products and 257 tons of consumption ready fish cans and foods, including caviar, mussels and shrimps.

The increase in exports in 2003 was due to the increase in exports of mussels and shrimps as under item 0307 of the Customs tariff. They increased by 21% compared to 2002 and reached 2 641 tons. The exports consisted of mussels, shrimps, cuttlefish, octopus, whelk (48%). These species are luxury food stuffs and as delicatessen have high prices. The value of their exports was 4 474 404 USD with average price per ton of 1 694 USD (FOB the Bulgarian border).

The major export destinations in recent years include Japan (23% of the export), Yugoslavia (20%), Greece (18%) and Turkey (17%).

Other countries to which Bulgaria exports such species include Macedonia, Korea, France. It should be noted that such exports are made to sea countries and this is due to the lower export prices. The exports to France fetched the highest price – 3 986 USD per ton, followed by Korea – 3 598 USD per ton and Japan – 3 118 USD per ton. The exports to Greece, Turkey, Yugoslavia, and Macedonia were low-priced – from 800 to 900 USD per ton.

**Figure IV.5.**  
**Main export destinations for Bulgarian mussels, shrimps and molluscan 2003**



The data of the Customs Agency showed increase in the exports of frozen fish with 6.8%, increasing from 1 329 tons in 2002 to 1 419 tons to 2003, accounting for 26% of the total exports. The cumulative value of these export was 933 181 USD at average price of 658 USD per ton. It was favourable for Bulgaria that these type of export increased not only in quantity but also in price – with 12% up from the 589 USD per ton in 2002. The biggest export destinations of frozen fish were Rumania and Yugoslavia for which about 80% of these export went – mainly sprat.

Following the lifting of the fish exports ban Bulgaria started to export, albeit small quantities, to Europe – 103 tons of trout were exported to Germany at average price of 2 347 USD per ton, and 35 tons of trout were exported to Spain at average price of 2 498 USD per ton.

An increase was registered also in the exports of dried, salted, smoked fish and fish products or fish in brine. These exports increased by 2.1% to 1 304 tons. Their average price also increased more than twofold reaching 1 949 USD per ton. The cumulative value of exports was 2 542 212 USD. In recent years Rumania was almost the only export destination for dried and smoked salmon, accounting for 98% of the exports. In 2003 the share of Rumania decreased to 80% or 1 049 tons, and some 254 tons of dried/smoked fish were exported to Germany at average price of 3 659 USD per ton. The export price for Germany was approximately 3 times higher than that for Rumania.

The number of licensed processing facilities that comply with the European veterinary, sanitary and hygiene requirements continually increases and this enables the country to enter the European fish markets.

Therefore, in 2004 fish and fish product exports are expected to rise with some 12.6% up to 6 500 tons. The expected increase in catches will contribute to the growth in trade with such products.

#### 4. Fish prices

According to the data of SAPI Inc. in 2003 the prices of the core fish species offered to the market registered a slight decrease in comparison to the previous year. Although the catches and breeding of some species were lower than in 2002 the increased imports compensated the gap and thus domestic demand was adequately satisfied.

##### 4.1. Wholesale markets

With a view to consuming more beneficial food, the consumers sought fish with lower fat content, such as white species, despite their higher prices. The consumers showed interest even to more exotic species such as turbot, dogfish, pike perch, while the demand for more traditional species was at a standstill.

In 2003 the wholesale prices of the main fish species decreased. The decrease varied widely – from 8% to 19%. The biggest drop was registered with the price of hake (19.3%) due to lower demand. The price of mackerel registered the smallest drop of 8.4%. The mackerel is one of the most common and sought species and its prices are usually quite steady and affordable.

**Table IV. 6**  
**Average annualized wholesale prices of the main fish species**

Species / Leva per kg	2002	2003/2002 in %	2004 1 <sup>st</sup> quarter
Mackerel	2.51	91.6	2.27
Sprat	0.91	88.3	1.03
Carp	3.36	102.4	3.24
Hake	3.27	80.7	2.99
Silver/bighead carp	1.97	84.5	1.92
Trout	6.66	101.5	2.27

Source: SAPI

The prices of carp and trout were the exception as they increased with 2.4% and 1.5%, respectively, compared to 2002. The consumption of carp is seasonal and much higher demand is registered around holiday of Nikulden (December 6<sup>th</sup>) when prices tend to jump. The trout usually is higher-priced than the other fish species as it is bred in farms leading to higher production costs due to imported trout feed granulated mixes

##### 4.2. Retail prices



In 2003 the average annualized retail prices of the main fish species dropped by 1% to 13%. This was, however, less than the drop in the wholesale prices. The largest decrease was registered in the retail price of sprat – 13.3% as its consumption is rather seasonal. The price of silver/bighead carp dropped by 10.6% due to the higher catches and supply throughout the year. The decreases in the retail price of the other core species were smaller.

**Table IV.7**  
**Average annualized retail fish prices**

Species / Leva per kg	2002	2003/2002 In %	2004 1 <sup>st</sup> quarter
Mackerel	3.02	94.4	2.74
Sprat	1.17	86.7	1.22
Carp	3.66	99.2	3.58
Hake	3.81	93.8	3.63
Silver/bighead carp	2.10	89.4	2.06
Trout	7.28	99.3	2.74

Source: *SAPI*

It is expected that in 2004 the fish prices will stay near the level of the preceding year. As a result of the restocking of reservoirs with precious species in 2003, their catches should increase and lead to improved supplies to the market.

## **5. State policy on fishing, production and marketing of fish and fish products**

The overall objective of sector policy is the sustainable development of fish stocks, the restoration and conservation of biological balance and improving the abundance of fish stocks in the water ecosystems; development of commercial and leisure fishing, fish breeding and aquaculture; enforcing the rules of responsible fishing; increasing the consumption of fish and fish products in Bulgaria, in compliance to the common fisheries policy of the EU, as well preparation of the country to accede to that policy in terms of institutional, administrative, technical and legislative respect.

Fishing and fish breeding in Bulgaria are regulated by the Fishery and Aquaculture Act (State Gazette 41/24.04.2001), which sets the organization, management, use and conservation of fish stocks as well as of fish and aquaculture trade.

In 2003 an Act on the amendment of the fishery and aquaculture act was prepared. In addition, efforts were made to complete the lower-tier normative regulations related to the harmonization of Bulgarian legislation to that of the EU. In relation to this in 2003 the following ordinances were adopted or amended:

- Ordinance № 1 (SG, 7/24.01.2003) on the listing in the ship registrar;
- Ordinance № 8 (SG, 9/31.01.2003) on the veterinary and sanitary requirements for the production and marketing of snails, frog meat and gelatine for human consumption;

- Ordinance № 1 (SG, 6/21.01.2003) on the health protection requirements for imports of cattle, sheep, goat and swine and on the veterinary and sanitary requirements for imports of animal-origin products for human consumption;
- Ordinance № 11 (SG, 21/7.03.2003) on the requirements for issuance of veterinary documentation for livestock and for products of animal origin;
- Ordinance № 7 (SG, 40/19.04.2002) amended as in SG 59/1.07.2003 on the hygiene requirements for processing facilities that produce or trade in foodstuffs and on the requirements for the production of safe and quality food;
- Ordinance № 4 (SG, 30/22.03.2002) amended as in SG 24/14.03.2003 on the border veterinary controls;

Due to the trend for fish stocks to diminish, as well as to the imbalanced age structure within the species populations and between the populations themselves, since 2002 EAFA had been following a plan for the restoration and maintenance for fish stocks, designed to ensure their sustainable development. Each year a National program for restocking of the Danube and the domestic reservoirs/rivers is prepared. Special attention is paid to species that are endangered and in risk of extinction, as well as to species with diminishing populations, as well as to the protection of bio-diversity and the increase of stocks of commercially precious species. In 2002 the program involved the release the 1.2 million fingerlings, in 2003 their number of 1.7 million. In 2004 the budget of the program was increased to 83 000 leva.

In pursuance to the engagements under the negotiation chapter 7 “Fisheries” drafts for a National fisheries program and fleet capacity management plan were prepared. The drafts are circulated for consultation to the relevant institutions, research units and fisher and fish breeders’ associations (the two major partners). The draft of the national fisheries program will be finalized after the amendments in the fishery and aquaculture act are enforced.