



## Beekeeping in Bulgaria 2022

The number of bee colonies on October the 1, 2022 is 823.3 thousand, which is 1.8% less than in 2021. The bee colonies, used for the production of honey in 2022 increased by 1.1% and amounted to 672.2 thousand. The honey production is 11 944 tons, or 2.6% more than to 2021. The average production from one bee colony is 17.8 kg, which is 1.7% compared with 2021.

During the year of observation, 4.0 tons of propolis and over 47 tons of bee pollen have been produced.

The number of holdings breeding bee colonies decreased to 10 224 (-5.3%) in 2022. Holdings with 1 to 49 bee colonies decreased by 8.6%. The average number of bee colonies in one holding increased by 3.8% to 80.5 bees/holding.

Nearly 45 thousand bee colonies died in 2022 in total.

For the 2022, 4 441 tons of honey have been sold to processors, 2 127 tons have been sold directly, 461 tons to retailers, 510 tons to the industry, and 1 437 tons for own consumption.

Table 1

Beekeeping holdings, bee colonies and honey production by statistical regions in 2022						
Statistical zones (NUTS 1) and statistical regions (NUTS 2)	Beekeeping holdings	Bee colonies	Bee colonies, used for the production of honey	Average number of bee colonies	Honey production	Average honey production per a bee colony
	01.10.2022	01.10.2022				
	(number)	(number)	(number)	(number)	(tons)	(kg)
<b>Bulgaria</b>	<b>10 224</b>	<b>823 250</b>	<b>672 163</b>	<b>80.5</b>	<b>11 944</b>	<b>17.8</b>
<b>Severna i Yugoiztochna Bulgaria</b>	<b>7 685</b>	<b>690 069</b>	<b>568 968</b>	<b>89.8</b>	<b>10 619</b>	<b>18.7</b>
Severozapaden	1 730	136 483	117 564	78.9	2 080	17.7
Severen tsentralen	2 101	188 121	158 559	89.5	3 270	20.6
Severoiztochen	1 946	189 906	156 749	97.6	3 181	20.3
Yugoiztochen	1 908	175 559	136 096	92.0	2 088	15.3
<b>Yugozapadna i Yuzhna tsentralna Bulgaria</b>	<b>2 539</b>	<b>133 181</b>	<b>103 195</b>	<b>52.5</b>	<b>1 325</b>	<b>12.8</b>
Yugozapaden	825	41 600	35 251	50.4	378	10.7
Yuzhen tsentralen	1 714	91 581	67 944	53.4	947	13.9

Source: Ministry of Agriculture, Agrostistics Department, Survey Beekeeping in Bulgaria

Table 2

Destroyed bee colonies and losses caused by various factors in 2022 by statistical regions						
Statistical zones (NUTS 1) and statistical regions (NUTS 2)	Destroyed Bee colonies	of which			Other reason	Change 2022/2021
		By poisoning	By diseases	By hunger		
	(number)	(number)	(number)	(number)	(number)	(%)
<b>Bulgaria</b>	<b>44 663</b>	<b>8 518</b>	<b>7 509</b>	<b>4 947</b>	<b>23 689</b>	<b>-45.2%</b>
<b>Severna i Yugoiztochna Bulgaria</b>	<b>34 334</b>	<b>7 290</b>	<b>4 250</b>	<b>4 312</b>	<b>18 482</b>	<b>-49.6%</b>
Severozapaden	5 570	1 798	681	1 505	1 586	-16.2%
Severen tsentralen	9 239	1 063	2 186	1 715	4 275	-40.7%
Severoiztochen	5 938	878	334	910	3 816	-74.1%
Yugoiztochen	13 587	3 551	1 049	182	8 805	-40.9%
<b>Yugozapadna i Yuzhna tsentralna Bulgaria</b>	<b>10 329</b>	<b>1 228</b>	<b>3 259</b>	<b>635</b>	<b>5 207</b>	<b>-22.4%</b>
Yugozapaden	2 170	186	110	184	1 690	-40.4%
Yuzhen tsentralen	8 159	1 042	3 149	451	3 517	-15.6%

Source: Ministry of Agriculture, Agrostistics Department, Survey Beekeeping in Bulgaria

## Results and analyses

Table 3

Beekeeping holdings by statistical regions in 2021 and 2022						
Statistical zones (NUTS 1) and statistical regions (NUTS 2)	Beekeeping colonies at 01.10.2021	Beekeeping colonies at 01.10.2022	Change 2022/2021	Bee colonies, used for the production of honey in 2021	Bee colonies, used for the production of honey in 2022	Change 2022/2021
	(number)	(number)	(%)	(number)	(number)	(%)
<b>Bulgaria</b>	837 955	<b>823 250</b>	<b>-1.8%</b>	<b>665 020</b>	<b>672 163</b>	<b>1.1%</b>
<b>Severna i Yugoiztochna Bulgaria</b>	701 869	<b>690 069</b>	<b>-1.7%</b>	<b>564 338</b>	<b>568 968</b>	<b>0.8%</b>
Severozapaden	142 806	136 483	-4.4%	115 720	117 564	1.6%
Severen tsentralen	192 068	188 121	-2.1%	161 016	158 559	-1.5%
Severoiztochen	188 499	189 906	0.7%	155 358	156 749	0.9%
Yugoiztochen	178 496	175 559	-1.6%	132 244	136 096	2.9%
<b>Yugozapadna i Yuzhna tsentralna Bulgaria</b>	136 086	<b>133 181</b>	<b>-2.1%</b>	<b>100 682</b>	<b>103 195</b>	<b>2.5%</b>
Yugozapaden	41 274	41 600	0.8%	34 005	35 251	3.7%
Yuzhen tsentralen	94 812	91 581	-3.4%	66 677	67 944	1.9%

Source: Ministry of Agriculture, Agrostistics Department, Survey Beekeeping in Bulgaria

Figure 1. Bee colonies (number)

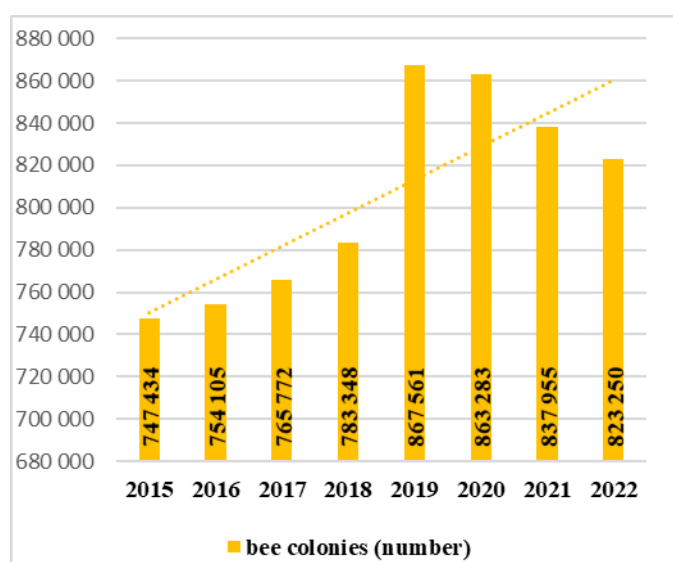
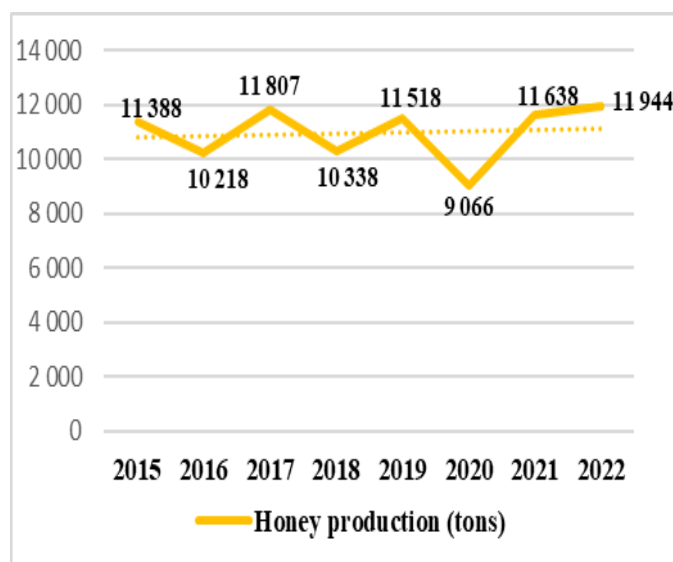


Figure 2. Honey production (tones) in Bulgaria



Source: Ministry of Agriculture, Agrostistics Department, Survey Beekeeping in Bulgaria

Table 4

Holdings by number of bee colonies									
Number of bee colonies in a holding	Holdings at 1 <sup>st</sup> October			Bee colonies at 1 <sup>st</sup> October			Average number of bee colonies		
	2021	2022	Change 2022/2021	2021	2022	Change 2022/2021	2021	2022	Change 2022/2021
	(number)	(number)	(%)	(number)	(number)	(%)	(number)	(number)	(%)
1 to 9	1 188	1 238	4.2%	5 942	5 882	-1.0%	5.0	4.8	-4.0%
10 to 49	3 945	3 455	-12.4%	92 751	79 340	-14.5%	23.5	23.0	-2.1%
50 to 149	3 819	3 383	-11.4%	347 585	298 194	-14.2%	91.0	88.1	-3.2%
150 and more	1 849	2 148	16.2%	391 677	439 834	12.3%	211.8	204.8	-3.3%
<b>Total</b>	<b>10 801</b>	<b>10 224</b>	<b>-5.3%</b>	<b>837 955</b>	<b>823 250</b>	<b>-1.8%</b>	<b>77.6</b>	<b>80.5</b>	<b>3.8%</b>

Source: Ministry of Agriculture (MoA), Agrostistics Department, Survey Beekeeping in Bulgaria

Table 5

Distribution of honey and average selling prices (ASP)					
Market distribution	Amount of bee honey sold in 2021	Average price* in 2021	Amount of bee honey sold in 2022	Average price* 2022	Change of the average price 2022/2021
	(tons)	(BGN/kg)	(tons)	(BGN/kg)	(%)
Direct sales	1 952	8.19	2 127	8.90	8.7%
Direct sales to retailers	277	8.45	461	8.27	-2.1%
Sales to processors	5 667	5.67	4 441	5.85	3.2%
Sales to the industry	209	5.53	510	5.91	6.9%
Total sales	8 105	6.37	7 539	6.86	7.7%
For own consumption and bee feeding	1 540	-	1 437	-	-

\*VAT excl.

Source: Ministry of Agriculture, Agrostatistics Department, Survey Beekeeping in Bulgaria

Figure 3. Bee colonies holdings (number)

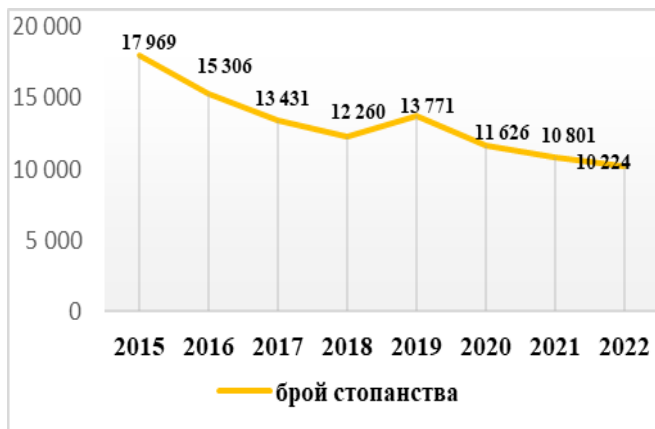
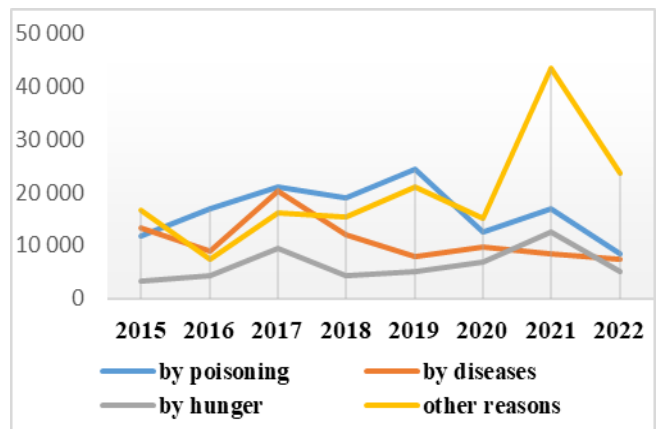


Figure 4. Destroyed bee colonies (number)



Source: Ministry of Agriculture, Agrostatistics Department, Survey Beekeeping in Bulgaria

Table 6

Preventive measures and bee colonies feeding in 2021 and 2022						
Measures	2021		2022		Change 2022/2021	
	Bee colonies	Average costs for one bee colony	Bee colonies	Average costs for one bee colony	Bee colonies	Average costs for one bee colony
	(number)	(BGN)	(number)	(BGN)	(%)	(%)
Treatment against varroaosis	832 386	5.46	810 439	6.61	-2.6%	21.1%
Autumn feeding	576 988	7.41	539 411	8.80	-6.5%	18.8%
Winter feeding	519 106	7.04	493 50	8.57	-5.0%	21.7%
Spring feeding	582 396	7.38	581 579	9.24	-0.1%	25.2%
Other costs	633 096	12.52	686 204	16.07	8.4%	28.4%

Source: Ministry of Agriculture, Agrostatistics Department, Survey Beekeeping in Bulgaria

Table 7

Storage of honey and storage value (including transport and storage costs)					
Type of storage container	Storage value			Relative share of holdings using storage containers by type	
	2021	2022	Change 2022/2021	2021	2022
	(лв./кг)	(лв./кг)	(%)	(%)	(%)
In tins	0.34	0.47	38.2%	69.6%	75.95%
Glass jars	0.59	0.83	40.7%	42.4%	44.72%
In plastic packaging	0.70	0.74	5.7%	2.4%	2.95%
Other packaging	0.54	0.56	3.7%	1.2%	0.71%

Source: Ministry of Agriculture, Agrostatistics Department, Survey Beekeeping in Bulgaria

**Table 8**

Mobile beekeeping				
Characteristics	(units)	2021	2022	Change 2022/2021 (%)
Bee colonies, involved in mobile beekeeping	(number)	28 518	26 182	-8.2%
Holdings, practicing mobile beekeeping	(number)	294	236	-19.7%
Value of transport costs and veterinary certificates	(BGN/bee colony)	11.14	14.44	29.6%

Source: Ministry of Agriculture; Agrostistics Department, Survey Beekeeping in Bulgaria

In 2022, only 13 holdings with 3 030 bee colonies indicated that they had 21 agreements (written or verbal) with farmers for crop pollination.

### Methodological notes

The survey purpose is to determine the number of bee colonies on 1<sup>st</sup> October 2022, the honey production in 2022, the sale and average prices (VAT excl.) of the sold honey, the main costs of the production and storage of bee honey, the number of destroyed bee colonies in 2022 and the reasons for their destruction. The survey data is used for analyses and programs for the sector, as well as to make management decisions in the implementation of agrarian policy in beekeeping. The legal basis for the statistical survey is the National Statistical Program for 2022. The results of the conducted survey are in accordance with the requirements of Commission Implementing Regulation (EU) 2022/1475 for determining detailed rules for the implementation of Commission implementing Regulation (EU) 2015/1368 laying down rules for the application of Regulation (EU) 1308/2013 of the European Parliament and of the Council with regard to aid in the apiculture sector Regulation (EU) 1308/2013 of the European Parliament and of the Council establishing a common organisation of the markets in agricultural products and repealing. The used definitions in the survey are those specified in the cited regulations.

#### Surveyed Statistical indicators:

1. Holdings raising bee colonies, bee honey production and sale - number of holdings with bee colonies; number of bee colonies; honey production- tons; average honey production - kg from 1 bee colony; sold honey - tons; prices of sold honey - BGN per kilogram.
2. Distribution of honey production - direct sales, sales to retailers, to processors, to the industry, own consumption by the farmer's household.
3. Indicators for the prevention, production and other costs, related to the bee colonies - value of preventive treatments against varroaosis, costs of bee feeding, number of destroyed bee colonies, mobile beekeeping and honey storage.

**The questionnaire** consists of 22 questions and covers administrative information about the holding, legal status, registration number of the apiary according to Ordinance No. 10 of April 1, 2015 on the conditions for registration and the procedure for identification of bee colonies, number of bee colonies, quantity and sale of honey production, production costs and costs related to the storage of honey.

**Scope, model and volume of the sample** - the sample (stratified and random) is prepared using a list of holdings breeding bee colonies from the Census of agricultural holdings in Bulgaria in 2020 and new holdings created after 2020, information about which is obtained from the farmers' register under Ordinance No. 3/1999. 3 228 holdings breeding bee colonies are surveyed. The organization and control of the survey is carried out by the Agrostistics Department at the Ministry of Agriculture.

**Confidentiality** – the national confidentiality rules are defined in the Statistics Act. According to Art. 25 individual statistical data as well as statistical information that summarizes data for less than three statistical units or for an aggregate in which the relative share of the value of a studied parameter of one unit is over 85 percent of the total value of this parameter for all units of the population cannot be disclosed or provided.

**Accessibility and transparency** - the data on the number of bee colonies, destroyed bee colonies during the year, on the amount of bee honey production and the honey sales are available to users on the website of the Ministry of Agriculture: <http://www.mzh.government.bg/bg/statistika-i-analizi/izsledvane-zhivotnovodstvo/damni/>, in accordance with the deadline established in the National Statistical Program and in the Calendar for the dissemination of the results of the statistical surveys conducted by the Ministry of Agriculture.

**Distribution of administrative districts by statistical regions (NUTS 2) – Severozapaden:** Vidin, Vratsa, Montana, Lovech, Pleven; **Severen tsentralen:** Veliko Tarnovo, Gabrovo, Ruse, Silistra, Razgrad; **Severoiztochen:** Varna, Dobrich, Targovishte, Shoumen; **Yugoiztochen:** Burgas, Sliven, Stara Zagora, Yambol; **Yugozapaden:** Blagoevgrad, Kyustendil, Pernik, Sofia-cap., Sofia region; **Yuzhen tsentralen:** Kardzhali, Pazardzhik, Plovdiv, Smolyan, Haskovo.

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