

Piraeus, 24 June 2021

# **PRESS RELEASE**

# ANNUAL AGRICULTURAL STATISTICAL SURVEY: 2019

The Hellenic Statistical Authority (ELSTAT) announces the results of the 2019 Annual Agricultural Statistical Survey.

#### A. CULTIVATED AREAS

The **total utilized agricultural area** (arable land, crops under vegetables, permanent crops and fallow land) in 2019 amounted to 32,165.4 thousand stremmas.

Cultivated areas by main crop type and by year as presented in Table 1 and Graph 1, are distributed as follows:

- in 2019, 52.8% of the cultivated area (16,988.5 thousand stremmas) was used for arable farming (net area), 1.9% (595.7 thousand stremmas) was used for vegetables (net area), 33.8% (10,882.3 thousand stremmas) for permanent crops and 11.5% (3,698.8 thousand stremmas) was fallow land.
- in 2018, 53.4% of the cultivated area (17,195.6 thousand stremmas) was used for arable farming (net area), 1.9% (618.9 thousand stremmas) was used for vegetables (net area), 33.7% (10,851.0 thousand stremmas) for permanent crops and 11.0% (3,551.3 thousand stremmas) was fallow land.

#### Table 1. Areas under cultivation by type of crop (Greece total), 2018 – 2019

In thousand stremmas (1 stremma=0.1 ha)

Crop type	2018	2019	Change (%) 2019/2018
Total cultivated agricultural area	32,216.8	32,165.4	-0.2
Irrigated	12,278.7	11,853.3	-3.5
1. Arable land (net area)	17,195.6	16,988.5	-1.2
Irrigated	7,144.1	7,003.7	-2.0
2. Horticulture land (net area)	618.9	595.7	-3.7
Irrigated	623.5	592.2	-5.0
3. Permanent crops	10,851.0	10,882.3	0.3
Irrigated	4,511.1	4,257.4	-5.6
4. Fallow land	3,551.3	3,698.8	4.2
of which: lands preserved in good agricultural and environmental condition	1,969.7	1,954.8	-0.1

Note: Any discrepancies in the sums and percentages are due to rounding

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Graph 1. Percentage (%) distribution of the cultivated agricultural area by categories (Greece, total), 2018 – 2019





The change of the most important (in terms of coverage of the total agricultural land) cultivated species, as recorded by type of crop and presented in Table 2 and Graphs 3 and 4, are the following:

- the cultivated areas under durum wheat decreased by 11.6% in 2019 compared with 2018. More specifically, areas under durum wheat amounted to 3,123.1 and 2,761.6 thousand stremmas in 2018 and 2019 respectively,
- the cultivated areas under grain maize decreased by 1.0% in 2019 compared with 2018. More specifically, areas under grain maize amounted to 1,108.7 and 1,097.3 thousand stremmas in 2018 and 2019 respectively,
- the cultivated areas under cotton increased by 4.0% in 2019 compared with 2018. More specifically, areas under cotton
  amounted to 2,805.3 and 2,917.1 thousand stremmas in 2018 and 2019 respectively,
- the cultivated areas under vineyards (total) decreased by 2.5% in 2019 compared with 2018. More specifically, areas under vineyards amounted to 892.5 και 870.1 thousand stremmas in 2018 and 2019 respectively,
- the cultivated areas under orange trees increased by 0.5% in 2019 compared with 2018. More specifically, areas under orange trees amounted to 293.1 and 294.5 thousand stremmas in 2018 and 2019 respectively,
- the cultivated areas under peach nectarine trees decreased by 0.5% in 2019 compared with 2018. More specifically, areas under peach nectarine trees amounted to 395.8 and 394.0 thousand stremmas in 2018 and 2019 respectively,
- the cultivated area under olive trees (total) increased by 0.8% in 2019 compared with 2018. More specifically, areas under olive trees amounted to 7,921.0 and 7,930.9 thousand stremmas in 2018 and 2019 respectively.

## Table 2. Cultivated land, by category and crop (Greece total), 2018 – 2019

In thousand stremmas (1 stremma=0.1 ha)

Cultivated species by category	2018	2019	Change (%) 2019/2018
1. Arable land	17,243.1	17,050.1	-1.1
1.1 Cereals for grain	7,728.8	7,169.1	-7.2
Common wheat	1,162.5	1,032.3	-11.2
Durum wheat	3,123.1	2,761.6	-11.6
Barley	1,262.6	1,270.0	0.6
Grain Maize	1,108.7	1,097.3	-1.0
Other cereals	1,071.9	1,007.9	-6.0
1.2 Edible pulses	379.1	318.4	-16.0
1.3 Industrial Plants	3,940.5	4,113.3	4.4
Tobacco	169.7	150.3	-11.4
Cotton	2,805.3	2,917.1	4.0
Other industrial plants	965.5	1,046.0	8.3
1.4 Aromatic plants	64.1	79.6	24.2
1.5 Fodder plants	4,817.4	5,070.1	5.2
1.6 Melons and watermelons	128.1	121.7	-5.0
1.7 Potatoes	185.2	178.0	-3.9
2. Horticulture land	666.1	631.9	-5.1
3. Permanent crops	10,851.0	10,882.2	0.3
3.1 Vineyards (total)	892.5	870.1	-2.5
Vines for wine	506.5	495.0	-2.3
Vines for table grapes	99.1	98.9	-0.2
Vines for currants	286.9	276.2	-3.7

Cultivated species by category	2018	2019	Change (%) 2019/2018
3.2 Trees in compact plantations	9,958.6	10,012.1	0.5
3.2.1 Citrus trees	417.6	420.1	0.6
Lemon trees	41.0	41.0	0.0
Orange trees	293.1	294.5	0.5
Mandarin trees	80.7	81.8	1.4
Other citrus trees	2.7	2.7	0.0
3.2.2 Fruit trees	299.0	312.8	4.6
Pear trees	42.3	42.8	1.2
Apple trees	93.3	94.4	1.2
Kiwi trees	92.9	104.0	11.9
Other fruit trees	70.5	71.6	1.6
3.2.3. Stone fruit trees	658.6	657.7	-0.1
Peach - Nectarine trees	395.8	394.0	-0.5
Cherry trees	157.7	157.4	-0.2
Apricot trees	79.9	81.0	1.4
Other stone fruit trees	25.1	25.3	0.8
3.2.4. Nut trees	406.4	434.3	6.9
Almond trees	139.8	152.1	8.8
Walnut trees	129.5	138.8	7.2
Chestnut trees	86.1	88.7	3.0
Other nut trees	51.0	54.7	7.3
3.2.5. Olive trees (total)	7,921.0	7,930.9	0.8
3.2.6. Other trees	256.0	256.3	0.1

Note: Any discrepancies in the sums and percentages are due to rounding.

#### Graph 3: Coverage of utilized agricultural land, by crop category, (Greece total), 2018 – 2019





#### Graph 4. Utilized agricultural land and percentage change (%), by crop category (Greece total), 2018 – 2019

## **B. PRODUCTION OF AGRICULTURAL PRODUCTS**

The changes of the most important agricultural products in terms of production volume, by product or group of products, as presented in Table 3 and Graph 5, are the following:

- the production of **durum wheat** decreased by 11.5% in 2019 compared with 2018. More specifically, durum wheat production amounted to 928.5 and 821.8 thousand tonnes in 2018 and 2019 respectively,
- the production of grain maize decreased by 0.4% in 2019 compared with 2018. More specifically, grain maize production amounted to 1,287.9 and 1,283.1 thousand tonnes in 2018 and 2019 respectively,
- the production of cotton increased by 4.8% in 2019 compared with 2018. More specifically, cotton production amounted to 859.6 and 900.7 thousand tonnes in 2018 and 2019 respectively,
- the production of grapes (total) increased by 0.3% in 2019 compared with 2018. More specifically, grapes production amounted to 815.6 and 818.1 thousand tonnes in 2018 and 2019 respectively,
- the production of **must** decreased by 6.6% in 2019 compared with 2018. More specifically, must production amounted to 300.0 and 280.3 thousand tonnes in 2018 and 2019 respectively,
- the production of oranges decreased by 0.6% in 2019 compared with 2018. More specifically, oranges production amounted to 744.8 and 740.5 thousand tonnes in 2018 and 2019 respectively,
- the production of olives (total) increased by 17.2% in 2019 compared with 2018. More specifically, olives production amounted to 2,764.6 and 3,240.1 thousand tonnes in 2018 and 2019 respectively,
- the production of **olive oil** decreased by 11.4% in 2019 compared with 2018. More specifically, olive oil production amounted to 327.7 and 290.5 thousand tonnes in 2018 and 2019 respectively,

# Table 3. Production of basic agricultural products (Greece total), 2018 – 2019 In thousand tonnes

Products	2018	2019	Change (%) 2019/2018
Common wheat	332.1	305.6	-8.0
Durum wheat	928.5	821.8	-11.5
Barley	364.5	373.0	2.3
Grain Maize	1,287.9	1,283.1	-0.4
Rice	233.4	228.0	-2.3
Cotton	859.6	900.7	4.8
Fodder plants (total)	3,613.9	3,771.8	4.4
Watermelons	365.9	356.2	-2.7

Products	2018	2019	Change (%) 2019/2018
Potatoes	463.3	472.2	1.9
Tomatoes	784.3	753.3	-4.0
Cucumbers	144.6	147.4	1.9
Peppers	142.0	137.6	-3.1
Strawberries	81.2	83.5	2.9
Grapes	815.6	818.1	0.3
Must	300.0	280.3	-6.6
Olives	2,764.6	3,240.1	17.2
Olive oil	327.7	290.5	-11.4
Oranges	744.8	740.5	-0.6
Tangerines	176.0	174.1	-1.1
Apples	273.1	285.9	4.7
Kiwi	233.2	256.1	9.9
Pomegranates	41.9	44.7	6.8
Peaches – nectarines	670.4	630.2	-6.0
Almonds	48.5	52.5	8.2
Walnuts	41.2	44.1	7.2

Note: Any discrepancies in the sums and percentages are due to rounding.



# Graph 5. Production and percentage change (%) of basic agricultural products, (Greece total), 2018 – 2019

#### C. LIVESTOCK: NUMBER OF ANIMALS AND PRODUCTION OF LIVESTOCK PRODUCTS

## 1. Number of animals

The changes in the number of the most important animal species, as presented in Table 4 and Graph 6, are the following:

- the total number of **bovine animals** increased by 0.5% in 2019 compared with 2018. More specifically, bovine animals amounted to 734,770 and 738,276 heads in 2018 and 2019 respectively,
- the total number of **pigs** decreased by 1.9% in 2019 compared with 2018. More specifically, pigs amounted to 719,727 and 705,736 heads in 2018 and 2019 respectively,
- the total number of **sheep** increased by 0.1% in 2019 compared with 2018. More specifically, sheep amounted to 8,908,739 and 8,917,973 heads in 2018 and 2019 respectively,
- the total number of **goats** increased by 0.1% in 2019 compared with 2018. More specifically, goats amounted to 3,941,960 and 3,944,691 heads in 2018 and 2019 respectively,
- the total number of **hens** increased by 5.1% in 2019 compared with 2018. More specifically, hens amounted to 37,299,748 and 39,188,039 heads in 2018 and 2019 respectively.

#### Table 4. Livestock by animal species (Greece total), 2018 – 2019

Number of animals or beehives

Animal Species	2018	2019	Change (%) 2019/2018
Bovine animals	734,770	738,276	0.5
Pigs	719,727	705,736	-1.9
Sheep	8,908,739	8,917,973	0.1
Goats	3,941,960	3,944,691	0.1
Hens	37,299,748	39,188,039	5.1
Geese	20,864	19,806	-5.0
Ducks	25,012	22,326	-10.0
Turkeys	258,266	265,587	2.0
Rabbits	816,275	782,804	-4.0
Beehives	1,674,494	1,725,099	3.0



#### Graph 6: Livestock percentage change (%) by animal species (Greece total), 2018 - 2019

#### 2. Meat Production

The changes in meat production, by animal species, as presented in Table 5 and Graph 7, are the following:

- the total production of **beef** decreased by 7.0% in 2019 compared with 2018. More specifically, beef meat production amounted to 42.4 and 39.5 thousand tonnes in 2018 and 2019 respectively,
- the total production of **pork meat** increased by 0.9% in 2019 compared with 2018. More specifically, pork meat production amounted to 79.9 and 80.6 thousand tonnes in 2018 and 2019 respectively,
- the total production of **sheep meat** decreased by 0.7% in 2019 compared with 2018. More specifically, sheep meat production amounted to 52.4 and 52.0 thousand tonnes in 2018 and 2019 respectively,

- the total production of **goat meat** decreased by 5.5% in 2019 compared with 2018. More specifically, goat meat production amounted to 20.2 and 19.1 thousand tonnes in 2018 and 2019 respectively,
- the total production of **poultry meat** (except ostriches) decreased by 1.9% in 2019 compared with 2018. More specifically, poultry meat production amounted to 244.3 and 239.8 thousand tonnes in 2018 and 2019 respectively.

# Table 5. Meat production by animal species (Greece total), 2018 – 2019

#### In thousand tonnes

Animal species	2018	2019	Change (%) 2019/2018
Bovine animals	42.4	39.5	-7.0
Calves younger than 1 year	8.3	8.4	1.0
Calves 1-2 years	24.7	22.6	-8.4
Heifers and cattle more than 2 years	9.4	8.4	-10.2
Pork	79.9	80.6	0.9
Piglets	4.1	4.1	-0.5
Pigs	75.8	76.5	1.0
Sheep	52.4	52.0	-0.7
Lambs	41.1	39.6	-3.7
Sheep older than 1 year	11.3	12.4	10.3
Goats	20.2	19.1	-5.5
Goat kids	15.4	14.5	-6.1
Goats older than 1 year	4.8	4.6	-3.5
Poultry (except ostriches)	244.3	239.8	-1.9

Note: Any discrepancies in the sums and percentages are due to rounding.

#### Graph 7: Meat production percentage change (%) by animal species (Greece total), 2018 - 2019



#### **3.** Production of livestock products

The changes in the production of the most important livestock products, in terms of volume of production, as presented in Table 6 and Graph 8, are the following:

- the total production of **milk** increased by 2.2% in 2019 compared with 2018. More specifically, total milk production amounted to 1,919.9 and 1,961.9 thousand tonnes in 2018 and 2019 respectively,
- the production of **soft cheese** decreased by 0.2% in 2019 compared with 2018. More specifically, soft cheese production amounted to 101.7 and 101.5 thousand tonnes in 2018 and 2019 respectively,
- the production of **eggs** increased by 8.9% in 2019 compared with 2018. More specifically, total eggs amounted to 1,376.0 and 1,497.8 thousand tonnes in 2018 and 2019 respectively.

# Table 6. Milk production and livestock products by animal species (Greece total), 2018 – 2019 In thousand tonnes

	Livestock products	2018	2019	Change (%) 2019/2018
Milk, total		1,919.9	1,961.9	2.2
Cow milk		638.4	660.7	3.5
Sheep milk		873.7	892.8	2.2
Goat milk		407.7	408.4	0.2

Livestock products	2018	2019	Change (%) 2019/2018
Livestock products			
Cheese, soft	101.7	101.5	-0.2
Cheese, hard	33.2	31.2	-5.9
Myzithra cheese	12.8	12.8	-0.1
Creme	5.4	5.9	8.2
Eggs (million pieces)	1,376.0	1,497.8	8.9
Honey	22.3	22.6	1.4

Note: Any discrepancies in the sums and percentages are due to rounding.





# D. AGRICULTURAL MACHINERY

The changes in the number of agricultural machinery as presented in Table 7 are as follows:

- Agricultural tractors decreased by 1.4% in 2019 compared with 2018. More specifically, the number of agricultural tractors used, amounted to 376,593 and 371,504 in 2018 and 2019 respectively,
- **Sprayers** decreased by 4.2% in 2019 compared with 2018. More specifically, the number of sprayers used, amounted to 252,963 and 242,439 in 2018 and 2019 respectively,
- Irrigation systems did not present any significant change, in 2019 compared with 2018. More specifically, the number of irrigation systems used, amounted to 375,403 and 375,491 in 2018 and 2019 respectively.

## Table 7. Agricultural machinery (Greece total), 2018 – 2019

Number of agricultural machinery

Type of machinery	2018	2019	Change (%) 2019/2018
Agricultural tractors	376,593	371,504	-1.4
Seeders	61,699	60,297	-2.3
Sprayers	252,963	242,439	-4.2
Threshers and harvesters	35,252	35,672	1.2
Irrigation pumps	239,485	236,360	-1.3
Irrigation systems	375,403	375,491	0.0
Other agricultural machines	410,252	399,462	-2.6

#### the experienced inhabitants of the rural settlements has been conducting the Annual Statistical Survey on Agriculture and Livestock since 1961. Purpose of the survey The purpose of the survey is to collect statistical data on the cultivated areas under several crops and on the production of agricultural and livestock products, as well as the agricultural machinery used. The data are necessary for drawing the agricultural policy of the country but also for covering other national and international needs and obligations. The legal framework for the conduct of the annual statistical agricultural survey is the Royal Decree Legal Framework No 111/15-2-1962 and the Joint Ministerial Decisions No 8710/C2-1246/5-8-2010 and 2198/C2-248/24-2-2012 signed by the Minister of National Economy and the Deputy Minister of Interior, Public Administrations and Decentralization, as well as the relevant decision of the President of ELSTAT issued annually, on the approval, procurement, assignment and cost allocation on conducting the Annual Agricultural Statistical Survey and approval for using private bodies for the conduct of the survey and their remuneration. **Reference Period** Year 2019 Definitions 1 stremma = 0.1 ha <u>Arable Crops (table 1)</u>: net area of arable crops i.e. without secondary/successive crops. Irrigated arable land (table 1): includes secondary/successive arable or horticulture crops. Horticulture land (table 1): net area of land under vegetables i.e. without secondary/successive crops. Irrigated horticulture land (table 1): includes secondary/successive horticulture (land under vegetables). Arable land (table 2): includes secondary/successive crops. Horticulture land (table 2): areas under vegetables including secondary/successive crops as well as the net areas of greenhouses, seedbeds, nurseries and ornamental plants. Cotton: includes cotton cultivated on irrigated and dry land. Tobacco: includes Bernley and Virginia tobacco. Greenhouses: net areas of greenhouse flowers and vegetables. Seedbeds: includes tobacco seedbeds and seedbeds for producing plantlets for transplantation. Nurseries: areas for producing fruit and forest trees, ornamental plants and American vines. Tomatoes (total): industrial tomatoes, tomato grown in the open and greenhouse tomato. Other cereals: oats, rice, rye, sorghum, meslin, millet, canary seed. Other industrial plants: sesame, sorghum, soybeans, pumpkin seed, etc. Olive trees (total area): edible and oil producing olives. Olives (total production): edible and oil producing olives Other citrus trees: cherry, quince, sloe, plum, kiwi and pomegranate trees. Other fruit trees: quince, pomegranates, figs for fresh and dried use Other stonefruit trees: sour-cherry, cherry-plum and plum trees Other nut trees: hazelnut trees and chestnut trees. Other trees: carob, avocado, mastic, loquat, banana and other trees (palm, willow trees etc.). Grapes (total): includes the production of wine, table and raisin grapes. Agricultural tractors: Single-axle (dredgers, mowers, mini-mowers, etc.) and Biaxial tractors Seeders: Wheat, cotton, maize, bean seeders, high technology seeders for linear sowing (e.g. carrots, onions) and potato mowers. Sprayers: High-pressure sprinklers, Motorized sprayers, Motorized sprayers of linear crops, Motorized mufflers Agricultural machinery: refers to the agricultural machinery which was used, except state agricultural machinery. Threshers and harvesters: Combine harvesters, Simple mowers of all types, thresher machines of all types, Simple windrowers, Cotton collectors, Beet extractors, Potato extractors, Other harvesting machines (for industrial tomatoes, onions, carrots) Irrigation pumps: Diesel-fueled, Gas powered, Electrically driven and other pumps (steam-driven, wind-powered, animal-powered, etc.) and fuel pumps Irrigation systems: Sprinkling units - fast coupling pipes with injectors, Self-propelled gun sprinkling units with injectors, Horizontal irrigation ramp self-propelled sprinkling units, Drop irrigation

## **EXPLANATORY NOTES**

The Hellenic Statistical Authority in cooperation with the central and regional offices of the Ministry

of Rural Development and Food, the local authorities, the local government bodies, as well as with

Annual Agricultural

Statistical Survey

systems.

<u>Other agricultural machinery</u>: incubators, milking machines – portable, milking machines with milk transfer lines, cream separators, wheat sorting machines, maize ginners, cotton ginners, tobacco threading machines, pruning saws, honey extractors.

Methodology and The statistical unit of this survey is the land area within the administrative boundaries of each Coverage communal/municipal department of the country according to "Kallikratis Plan". The survey covers, on a census basis, all the above-mentioned administrative departments except the area of Agion Oros, for which no data are collected. In the framework of quality improvement, from the reference year 2014 onwards, statistical correspondents i.e. public servants responsible for the collection of the relative data, were replaced by private partners holding a University degree (certificate, MSc, Phd) in agricultural or geotechnical sciences. Data collection is conducted via electronic questionnaires (in excel format) using a wide range of sources, namely administrative (decentralized services of the Ministry of Agriculture e.g. OPEKEPE, Directorates of the first and second degree of Self – Governance e.g. Municipalities and Regional Administration Units, as well as farmers possessing large farms and agronomists). For this purpose a relative communication with all of the above actors was in place well before the actual conducting of the Annual Agricultural Survey, via circulars and memoranda of mutual understanding. Finally, in the framework of data quality control preparation, proactive channels of communication with all the relative sources that could be used as verification sources during the comparability checks were established.

**Publication of data** The survey results are available on a yearly basis since 1961.

**References** More information on the results of the survey is available on ELSTAT website <u>www.statistics.gr</u>, under the link

http://www.statistics.gr/en/statistics/-/publication/SPG06/-