



Republika e Kosovës
Republika Kosova-Republic of Kosovo
Qeveria - Vlada - Government

Zyra e Kryeministrit -Ured Premijera -Office of the Prime Minister
Agjencia e Statistikave të Kosovës - Agencija za Statistike Kosova - Kosovo Agency of Statistics

Series 2: Agriculture and Environment Statistics

Agricultural Holdings Survey 2018



AGJENCIA E STATISTIKAVE TË KOSOVËS
AGENCIJA ZA STATISTIKE KOSOVA
KOSOVO AGENCY OF STATISTICS



Republika e Kosovës
Republika Kosova-Republic of Kosovo
Qeveria - Vlada - Government

Zyra e Kryeministrit -Ured Premijera -Office of the Prime Minister
Agjencia e Statistikave të Kosovës - Agencija za Statistike Kosova - Kosovo Agency of Statistics

Series 2: Agriculture and Environment Statistics

Agricultural Holdings Survey 2018



AGJENCIA E STATISTIKAVE TË KOSOVËS
AGENCIJA ZA STATISTIKE KOSOVA
KOSOVO AGENCY OF STATISTICS

Publisher: - Kosovo Agency of Statistics (KAS)
Publication date: June, 2019
© - Kosovo Agency of Statistics
Reproduction is authorized when source is indicated

More information is available on Internet
<http://ask.rks-gov.net>

F o r e w o r d

The Kosovo Agency of Statistics (KAS) has realized Agricultural Holdings Survey (AHS) on an annual basis since 2004. This is the fourth publication of AHS's performance according to the methodology which is harmonized with Eurostat methodology (questionnaire, guide, definitions) which has enabled international comparability of data.

The purpose of this survey is to provide statistical data for the agricultural sector in Kosovo. The results of the Agricultural Holdings Survey 2018, presented in this publication, provide an important source of information on the current state of agriculture in Kosovo (for the reference period of the survey).

In this publication are presented the results in summary form for the use of agricultural land, crops, livestock, agricultural inputs (mineral fertilizers, organic fertilizers, and pesticides) and farm expenditure for the reference period 2017-2018. The data presented here are mainly the results of this survey, but there are some data from administrative sources (vineyards data) obtained from MAFRD and the Agriculture Census in 2014.

Publication was prepared by:

Bajrush Qevani – Director of the Department of Agriculture and Environment Statistics,
Violeta Arifi-Gashi – Head of Division of Agriculture Statistics,
Selami Zylfiu – Officer for Livestock Statistics,
Arinda Berisha-Emini – Officer for Crops Plant Statistics,
Hasime Bytyqi – Officer for Crops Plant Statistics,
Florid Bytyqi – Officer for Livestock Statistics,
Bekim Canolli – Head of Methodology Division,
Servete Muriqi – Senior Officer for Methodology.
Drita Sylejmani – Senior Officer for Dissemination

Suggestions, proposals and comments regarding this publication are welcome.

Acknowledgments

KAS thanks all other KAS officials, field surveyors and respondents for their cooperation and contribution.

Prishtina, June 2019

Chief Executive Officer, KAS
Mr. Isa Krasniqi

List of Abbreviations

AHS	-	Agricultural Holdings Survey
KAS	-	Kosovo Agency of Statistics
AH	-	Agricultural Household
EU	-	European Union
AHoS	-	Agricultural Household Survey
MAFRD	-	Ministry of Agriculture, Forestry and Rural Development
EO	-	Economic Operator
AC	-	Agriculture Census 2014
DNFA	-	Data Network Farm Accountancy

List of Symbols

:	-	Data is not available
0	-	The data is less than a half-unit used
—	-	Not applicable
ha	-	Hectare
Acr	-	Acre
m ²	-	Square meter
Kg	-	Kilogram
T	-	Tonns
€	-	Euro
%	-	Percentage

In the tables where figures have been rounded up in recent closer figure, there may be slight discrepancy in the amounts presented.

List of Contents

	Page
1. Objektivat, metodologjia dhe fushëveprimi i anketës	4
Tabela 1.1: Variablat dhe kriteri i përcaktimit të madhësisë së klasës	6
Tabela 1.2: Numri i ekonomive bujqësore të zgjedhura në moster sipas madhësisë dhe rajoneve.....	7
Tabela 1.3: Numri i ekonomive bujqësore të intervistuar sipas madhësisë së fermës dhe Rajoneve	7
2. Shfrytëzimi i tokës bujqësore	11
Tabela 2.1: Sipërfaqja e shfrytëzuar e tokës bujqësore	Error! Bookmark not defined.
Tabela 2.2: Kulturat bujqësore në tokë të punueshme - ara, prodhimi dhe rendimenti.....	12
Tabela 2.3: Perime në tokë të punueshme - ara, sipërfaqja, prodhimi në fushë të hapur, serra, kopshte.....	Error! Bookmark not defined.
Tabela 2.4: Sipërfaqja dhe prodhimi i perimeve në fushë të hapur, serra dhe kopshte	16
Tabela 2.5 : Sipërfaqja dhe prodhimi me kulturave të dyta (pas korres së parë)	Error! Bookmark not defined.
Tabela 2.6: Sipërfaqja e mbjellë me pemë, prodhimi dhe rendimenti...	Error! Bookmark not defined.
Tabela 2.7: Sipërfaqja e mbjellë me vreshta, prodhimi dhe rendimenti.....	Error! Bookmark not defined.
Tabela 2.8: Sipërfaqja e livadheve, kullosave dhe tokës së përbashkët , prodhimi dhe rendimenti	Error! Bookmark not defined.
Tabela 2.9 : Sipërfaqja e ujitur	Error! Bookmark not defined.
3. Blegtoria.....	20
Tabela 3.1: Numri i kafshëve sipas llojeve.....	Error! Bookmark not defined.
Tabela 3.2: Numri i gjedheve sipas grup moshave, gjinisë dhe destinimit	Error! Bookmark not defined.
Tabela 3.3 : Numri i gjedheve sipas grup moshave.....	Error! Bookmark not defined.
Tabela 3.4: Numri i deleve sipas kategorive	Error! Bookmark not defined.
Tabela 3.5: Struktura e numrit të dhive	Error! Bookmark not defined.
Tabela 3.6: Numri i derrave sipas peshës dhe destinimit	Error! Bookmark not defined.
Tabela 3.7: Njëthundrakët.....	Error! Bookmark not defined.
Tabela 3.8: Shpezë	Error! Bookmark not defined.
Tabela 3.9: Koshere bletësh	Error! Bookmark not defined.
4. Inputet bujqësore	30
Tabela 4.1: Përdorimi i plehrave minerale në kulturat bujqësore	Error! Bookmark not defined.
Tabela 4.2: Përdorimi i plehrave organike sipas grupit të kulturave bujqësore	30
Tabela 4.3: Sipërfaqja e shfrytëzuar e tokës bujqësore, në të cilën janë përdorur pesticidet	31

5. Shpenzimet e fermës 32

Tabela 5.1: Struktura e shpenzimeve në fermë **Error! Bookmark not defined.**

1. Objectives, methodology and scope of the survey

1.1. Objectives and scope of the survey

The objective of the Agricultural Holdings Survey 2018 is to provide data on the agricultural state in Kosovo, the use of agricultural land, crops, livestock, agricultural inputs (fertilizers, manure, and pesticides) and farm expenditures. The survey aims to assist in the estimation of the level of development of the agricultural sector in Kosovo and to provide the basis for future monitoring of trends in the sector.

Agricultural Holdings Survey 2018 is conducted in the field in 34 municipalities of the Republic of Kosovo. The survey has not been conducted in four municipalities in the north of the Republic of Kosovo because the Agriculture Census in 2014 (AC) has not been performed in this section and there are no records of agriculture holdings from AC 2014. For four municipalities in the north we have made an estimation based on the information we had available from previous surveys in agriculture, in particular the Agriculture Household Survey 2013 (AHoS). Therefore, the results presented in this publication are representative for the entire territory of Kosovo. Data are presented only at the national level. The survey was conducted in the period November - December 2018.

1.2. Framework of the Agricultural Holdings Survey 2018

As a source for sampling design for the Agricultural Holdings Survey 2018 is used the Agriculture Census 2014. The Agriculture Census was conducted in November 2014 in 34 municipalities of Kosovo. Even though the preparations were made, the Census could not be completed in four (4) municipalities in northern Kosovo (Northern Mitrovica, Leposaviç, Zveçan and Zubin Potok), since these municipalities refused to participate.

Therefore, the Register of Agricultural Holdings of Agriculture Census 2014 includes only the agricultural households in the 34 municipalities of Kosovo. This Register contains all information necessary for the design of the sampling in accordance with the standards of the EU. For the definition of the sampling frame was analyzed limit-threshold that was used in the Agriculture Census 2014. The analysis showed that the threshold used in AC 2014 may also serve for the purposes of the definition of the sampling frame and there was no need for additional criteria.

Threshold

Agriculture Census in 2014 included only agricultural holdings which have met at least one of the following criteria and the same threshold has been applied to AH 2018::

1. The holding works 10 acres (1 000 m²) or more of agricultural land used for the cultivation of agricultural crops;
2. The holding produces vegetables, flowers or other agricultural products in greenhouses for sale;
3. The holding keeps one or more cattle or horses;
4. The holding keeps at least 3 adult pigs;

5. The holding keeps at least 4 adult heads of sheep or goats and pigs together,
6. The holding keeps at least 50 adult poultry and female rabbits together;
7. The holding holds at least 20 beehives;
8. The holding produces mushrooms for sale.

1.3. Design of the sampling frame

To make the sampling design, which would lead to an acceptable accuracy for all or at least most of the key variables, the following variables are analyzed:

- The number of cattle,
- The number of dairy cows,
- The number of sheep,
- The number of goats,
- The number of sheep and goats,
- The number of breeding sheep and goats,
- The number of pigs,
- The number of poultry
- The number of beehives,
- Used or utilized agricultural land,
- Arable land (fields)
- Meadows and pastures,
- Grain cereals,
- Grain legumes,
- Industrial plants,
- Potatoes,
- Peppers,
- Onions,
- Cabbage,
- Mixed crops,
- Vineyards,
- Greenhouse,
- Orchards,
- Fruit berries,
- Apples,
- Pears,
- Plums,
- Melon,
- Strawberries.

Different designs were tested for different sampling sizes. Based on tests conducted, it was decided that the sampling design should be of one layer and the sampling size should be 7000 agricultural holdings. For the final design of the sampling are taken into account the following parameters:

- The sampling size 7000,
- Stratification,
- Allocation (distribution).

Stratification is done according to region, class size and farm type. Selection of agricultural holdings for interview is done randomly.

Class size

Agricultural Holdings (AH) are divided into four (4) categories, by size class. AH of size 1 are the largest, while those of size 2, 3 and 4 are smaller. The following table shows which variables are taken as the basis for defining and determining the size of classes.

Table 1: Variables and criteria for defining the class sizes

Variable	Criteria for determining the size of the class		
	Class size 1	Class size 2	Class size 3
Used agricultural land	≥ 2000 acre	≥ 1000 acre	≥ 200 acre
Cattle	≥ 35 heads	≥ 20 heads	≥ 8 heads
Sheep and goats	≥ 180 heads	≥ 50 heads	≥ 10 heads
Breeding sheep and goats	≥ 150 heads	≥ 50 heads	≥ 10 heads
Pigs	≥ 30 heads	≥ 15 heads	≥ 8 heads
Poultry	≥ 1000 heads	≥ 500 heads	≥ 250 heads
Arable land (fields)	≥ 1000 acre	≥ 500 acre	≥ 200 acre
Grain cereals	≥ 850 acre	≥ 250 acre	≥ 120 acre
Grain legumes	≥ 150 acre	≥ 100 acre	≥ 20 acre
Industrial plants	≥ 200 acre	≥ 100 acre	≥ 50 acre
Potato	≥ 800 acre	≥ 200 acre	≥ 50 acre
Vineyards	≥ 500 acre	≥ 100 acre	≥ 50 acre
Other root crops	≥ 300 acre	≥ 150 acre	≥ 50 acre
Orchards	≥ 500 acre	≥ 100 acre	≥ 30 acre
Greenhouse	≥ 100 m ²	≥ 50 m ²	≥ 20 m ²
Bee hives	≥ 100 bee hives	≥ 50 bee hives	≥ 20 bee hives
Mixed crops	≥ 300 acre	≥ 100 acre	≥ 50 acre
Fruit berries	≥ 100 acre	≥ 50 acre	≥ 20 acre
Cabbage	≥ 250 acre	≥ 50 acre	≥ 20 acre
Pepper	≥ 250 acre	≥ 100 acre	≥ 50 acre
Onions	≥ 120 acre	≥ 50 acre	≥ 20 acre
Watermelon and melon	≥ 150 acre	≥ 50 acre	≥ 20 acre

All agricultural holdings which are smaller than the size of class 3 belong to the class size 4.

Types of Agricultural Holdings (farms)

Also, two types of AH for stratification are taken into consideration:

- Type 1 - AH, which can be considered as "Livestock Holding" under the main categories of livestock. The following criteria used for AH type 1 are: cattle >= 1 or sheep >= 4 or goats >= 4 or poultry >= 50;
- Type 2 - All other AH constitute type 2;
- Allocation: optimal distribution is made taking into account the auxiliary variable;
- Used agricultural land.

Table 2: Number of agricultural holdings selected in the sampling by the size of AH and region

Size of Agricultural Holding	Prishtina	Mitrovica	Peja	Prizreni	Ferizaji	Gjilani	Gjakova	Total
1	860	510	477	499	272	367	488	3473
2	313	155	173	145	95	154	189	1224
3	287	131	177	175	122	126	185	1203
4	265	121	124	226	141	110	113	1100
Total	1725	917	951	1045	630	757	975	7000

Table 1.3: Number of agricultural holdings interviewed by the size of AH and region

Size of Agricultural Holding	Prishtina	Mitrovica	Peja	Prizreni	Ferizaji	Gjilani	Gjakova	Total
1	801	485	457	482	262	349	476	3312
2	295	148	171	143	92	151	187	1187
3	267	130	174	172	120	126	184	1173
4	250	116	124	223	138	106	112	1069
Total	1613	879	926	1020	612	732	959	6741

1.4 Definitions

The survey is conducted by using the following definitions:

Agricultural Holding is an independent technical and economic production unit, where (1) the household or (2) legal entity (3) performs agricultural activity as main or secondary activity, under a single management, and which uses common means of production (land, livestock, equipment, buildings, etc.).

- (1) **Household** - means an individual, family or other community of persons (individuals) who live together and are located wholly or partly in a household, and supplied with food stuff and other basic elementary things to live. Members of this group can unite their income to a greater extent or less.

Agricultural Household - is a family or community of people where its members are engaged in agricultural production as their primary or secondary activity, with the single management, using the tools of common production, such as land, machinery, buildings, etc. Agricultural household can produce agricultural products for sale, for own consumption or for both.

(2) Legal entities - are agricultural cooperatives, individual businesses and other forms of organization with legal entity status which are registered to have agricultural production as their main activity; as well as enterprises, institutions and other legal entities that are registered in another activity, which have branches or other organizational part where agricultural production is made.

(3) Agricultural production means:

- Cultivation of agricultural crops (cereals, potatoes, dried legumes with grain, industrial crops, fodder crops, vegetables, flowers, ornamental plants, seeds, seedlings, fruits, grapes, mushrooms, etc.);
- Livestock, poultry and other animals (cattle, sheep, goats, pigs, horses, donkeys, mules, chickens, bees, rabbits, etc.); and
- Producing wine from grapes produced in Agricultural Holding.

Used area of agricultural land - refers to the total area of arable land - fields, meadows and pastures, perennial crops and gardens used by AH regardless of the type of tenure.

Arable land - fields - the area of land which is cultivated regularly with various agricultural crops or planted with a certain sequence of crops (crop rotation systems). The area of arable land used refers to the main area during the agricultural year. Normally, crops vary each year, but they also can be perennial. To distinguish arable land from meadows and pastures the five-year threshold is used. This means that if a plot of land is used for the same crop for five years or more without removing the crop or creating a new one, it is no longer considered as herbal circulation land.

Arable land includes whole grains, legumes, industrial plants, potatoes, fodder crops, flowers and decorative plants, seeds and seedlings, vegetables and other crops of arable land. Arable land also includes fallow land.

Fallow land - refers to all the arable land (fields) involved in herbal flow, whether is arable or not, but without any intention to produce crops during the agricultural year. The basic characteristic of fallow land is that it left a year for renewal purposes normally throughout the agricultural year.

Fallow land can be:

1. Bare land, generally without plants,
2. Land with spontaneous natural growth, which can be used as livestock feed or plowed,
3. Land sown exclusively for green manure.

Includes all areas of arable land, held under good agricultural and environmental conditions, regardless of whether or not part of crop rotation.

Excluded, if these areas are left out of production for more than five years.

Garden - the area of land for cultivation of agricultural crops, intended only for family consumption (excluding the cultivation of agricultural products for animal feed, such as pumpkins, corn for animal feed, grown in the garden, etc.) usually separated from the rest of the agricultural land.

Plant production - is considered the cultivation of agricultural crops (corn grain, grain legumes (including legumes for seed), industrial crops, potatoes, mixed crop, fodder crops, roots, the greens and pumpkins, flowers and ornamental plants, seeds and seedlings, vegetables, fruits, grapes and mushrooms).

Keeping animals - is considered keeping livestock, poultry and other animals (goats, sheep, pigs, horses, donkeys, mules, poultry, bees, rabbits, etc.). In the keeping of animals is not considered keeping fish and fishing.

Harvested area - is the area in which crops are harvested and the output is taken. Harvested area may be smaller than the area planted in those areas where crop is damaged.

Total production - is the production taken at the end of harvest / harvesting or production that is saved and reduced (damaged) the amount before the harvest, during harvest, transport, etc. Production is expressed in kilogram - kg

Perennial crops - crops that are not grown in herbal turnover (rotation), except meadows and pastures, which occupy the soil for a long period, and productivity of crops over several years. The main crops are vines, fruit trees, berry bushes and perennial production of fruits, except strawberries. Orchards are agricultural area with fruit trees, with certain distance between rows and between troops of trees.

Plantations of fruits - are areas with fruit trees, planted in rows and with a certain distance between rows, enabling the use of agricultural machinery and equipment, where agro-technical measures are taken.

Extensive orchards - are areas with fruits, semi-intensive or extensive, intended mainly for self-consumption. These include fruits (distributed) located in the yard, in the field, around fences, near roads, in gardens, etc. Extensive orchards area (distributed trunks of the trees) is included only if the area is not included in meadows or any other category of a land.

Plantations of vineyards - are areas with grape with a certain distance between rows and between vines, enabling the use of agricultural machinery and equipment, as well as application of agro-technical measures.

Vineyards - are areas of land cultivated with grapevines intended for the production of grapes.

Seedlings - are areas of land with new plants – seedlings. This includes seedlings of fruit trees, vines trees, ornamental plants and forest tree seedlings.

Includes seedlings that produce seedlings of forest for sale, whether inside or outside the forest land, as well as non-commercial forest seedlings, produced for the needs of the AH, if seedlings are grown outside the forest land. Seedlings for the needs of the AH grown in a forest land are included in the category of forest land.

Meadows – is land used (for five years or more) for the cultivation of various grass, through cultivation (planting) or naturally (self-sowing) and are not included in the flow of crops in Agricultural Holdings. Meadows are used for hay or grazing. This includes all areas of meadows used during the reference year.

Pastures - are areas used for grazing cattle. Takes part only pasture areas that are used for livestock grazing at least once a year.

Joint or common land - the land is not attributable directly to Household Holding, but where common rights are applied. It may consist of pastures, meadows or other land.

In general, common land is used agricultural land owned by a public authority (state and municipality) on which a person may exercise collective rights. These rights are generally exercisable in common with others.

Reference periods

- The reference period for use of the land is agricultural year (31 October, 2017 – 1 November, 2018).
- In livestock is 1 November 2018 for the number of animals, poultry and bees, while for livestock products (31 October 2017 – 1 November 2018).

1.5. Field procedure

The method of data collection was a face-to-face interview with a questionnaire (Annex 1).

The survey was conducted by surveyors with special service agreement from KAS, where field interviewers were engaged to conduct the survey. Surveyors were previously trained to complete the questionnaire and to conduct the survey.

The survey was conducted by Economic Operator (EO) Data Gis Consulting which has engaged surveyors on the field for conducting the survey. Surveyors were previously trained to complete the questionnaire and to conduct the survey.

The field and regional supervisors, through special service agreement, have conducted the close field supervision, by contacting the Central Office in order to solve the eventual problems.

There was also a data checking procedure that consisted of three levels: (i) checking of completed questionnaires by field supervisors by special service agreement; (ii) checking the questionnaires at the KAS Central Office by the staff of the Department of Agriculture; and (iii) logical checks during data entry.

2. Use of agricultural land

This chapter presents data for agricultural land according to categories of use of arable land - fields, meadows and pastures (including common land), perennial crops¹ and gardens, regardless of the type of ownership.

Does not include data on forest land, unused agricultural land and non-agricultural land.

Table 2.1: Used area of agricultural land

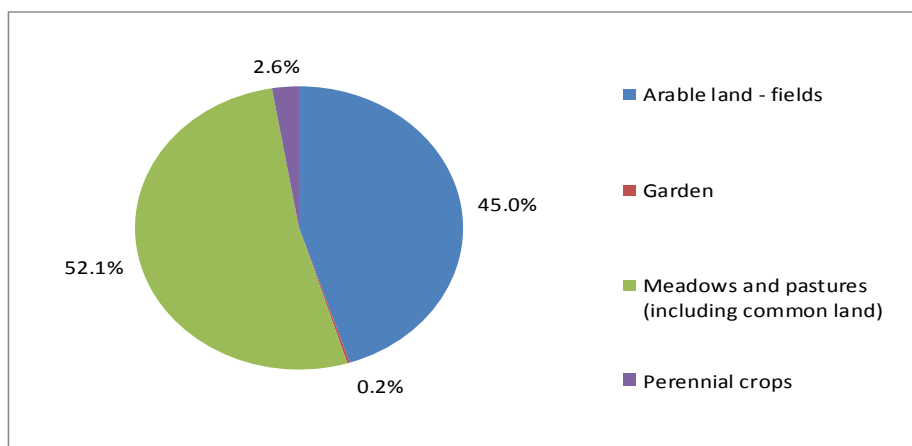
Use of agricultural land	Area (ha)
Arable land - fields	188.359.07
– From which vegetables in the open field (first crop)	7.818.16
– From which vegetables in greenhouses (first crop)	468.21
Garden	1.002.70
Plantations of fruits	7.687.40
Plantations of vineyards ²	3.271.62
Seedlings	108.57
Meadows and pastures (including common land)	218.152.41
Total used area of agricultural land	418.581.76

According to the data, total utilized area of agricultural land are 418 581.76 hectares, most of them belong to meadows and pastures (including common land) 218 152.41 ha or (52.1%), while the arable land is 188 359.07 ha or (45 %), of which open field vegetables and greenhouse vegetables are included in this category of land.

Graph 2.1: Structure of the area of the used agricultural land

¹ In the perennial crops are included the following categories: fruits plantations, vineyard plantations and seedlings.

² Data source for vineyard plantations is MAFRD..



2.1 Agricultural production

The survey collected data on areas of agricultural land according to categories of use, area planted (in hectares), production (in tonnes) and yield (tonnes per hectare).

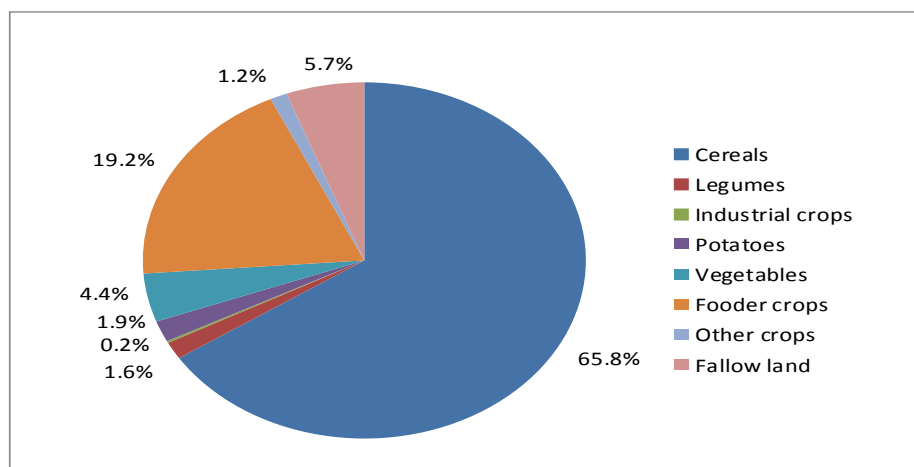
Arable land - the fields includes the following categories: whole grains, legumes, industrial plants, potatoes, fodder plants, vegetables and other crops. Arable land, also includes fallow land³.

Table 2.2: Crops on arable land - fields, production and yield

Crops	Area (ha)	Production (ton)	Yield (t/ha)
Cereals for grain	123.869.20		
Wheat	81.123.38	280.615.88	3.5
Corn	38.453.21	151.920.77	4.0
Barley and barley beer	1.948.00	5.124.21	2.6
Rye	434.32	1.048.88	2.4
Oat	1.797.00	2.751.07	1.5
Other grain cereals	113.29	296.41	2.6
Legumes for grain (dry)	2.969.41		
Beans	2.844.75	5.687.88	2.0
Grain peas	55.33	145.86	2.6
Other legumes	69.33	254.39	3.7
Industrial crops	328.61	391.70	1.2
Potatos	3.606.21	68.790.13	19.1
Vegetables (open field and greenhouse)	8.286.37		
Forage crops	36.208.81		
Lucerne	17.182.40	73.753.68	4.3
Clover	853.52	3.065.02	3.6
Mixture of grass	9.200.37	30.786.32	3.3
Vetch	650.42	2.966.91	4.6
Green corn	7.085.32	109.531.92	15.5
Green wheat	431.16	3.362.36	7.8
Green oat	725.49	5.283.08	7.3
Green barley	39.18	147.83	3.8
Green rye	13.60	136.64	10.0
Other green fodder (vetch)	27.35	112.80	4.1
Roots, fodder cabbage and pumpkins	2.278.13		
Forage fodder	22.93	397.26	17.3
Pumpkin	2.255.20	20.208.05	9.0
Flowers and decorative plants	15.58	-	-
Seeds and vegetable seedlings	16.16	-	-
Other crops	8.50	66.08	7.8
Fallow land	10.772.09	-	-

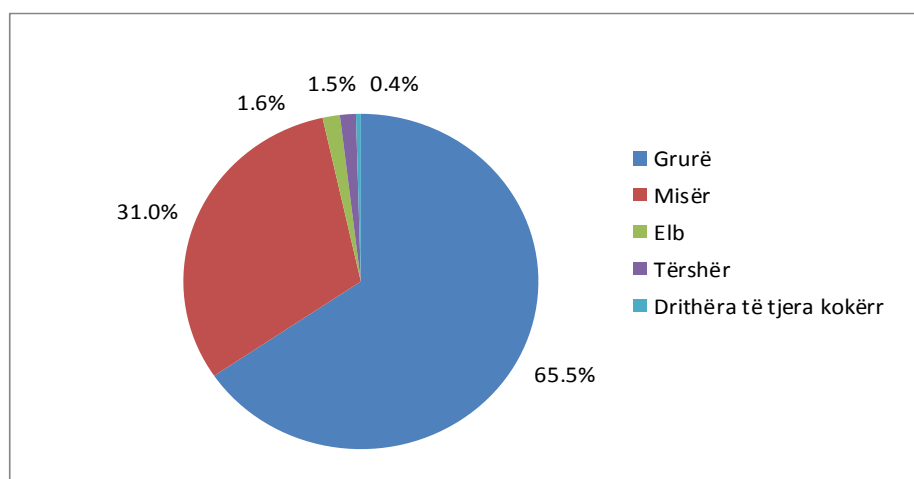
³ In the **fallow land** are included all areas of arable land which are kept in good agricultural condition (plant circulation) or not. This category does not include areas left out of production for more than five years.

Graph 1.2: Structure of arable land - fields with crops



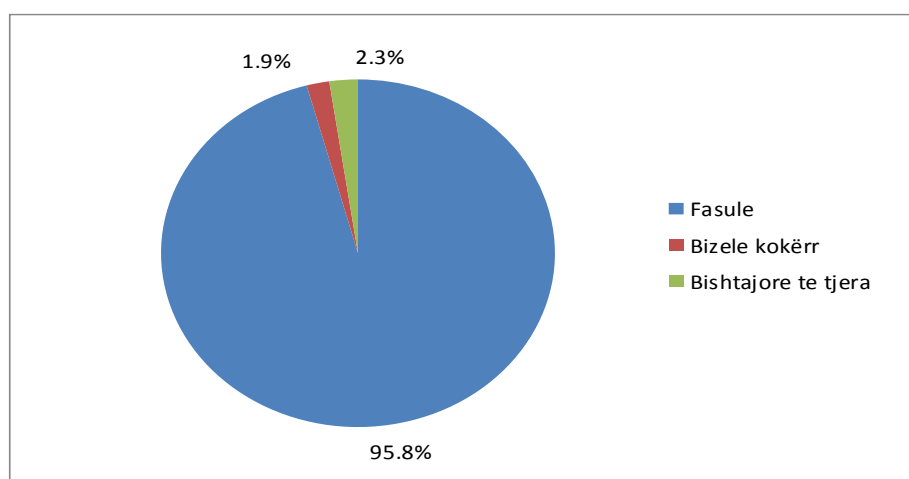
Arable land - fields, bulk is grain cereals. Grain cereals are sown in 123 869,20 ha or (65,8%) of arable land area. The second group of crops on arable land - fields are forage crops with 36 208,81 ha or (19,2%) of arable land area.

Graph 2.2: Structure of areas with cereals

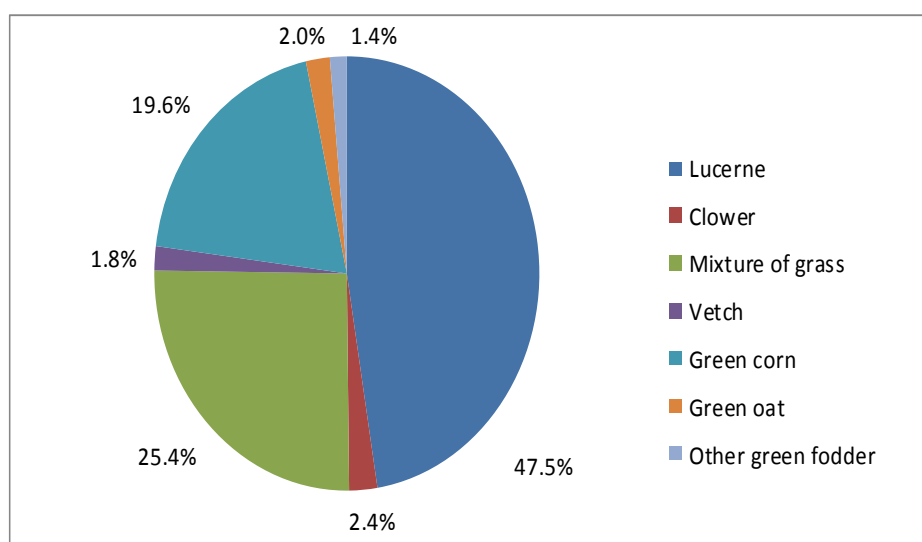


The most important crop of the arable land with cereal is wheat with area 81 123,38 ha (65.5%), followed by area with corn 38 453,21 ha (31,0 %) of the area of arable land with cereals.

Graph 2.3: Structure of area with legumes



Graph 2.4: Structure of area with forage and green grain

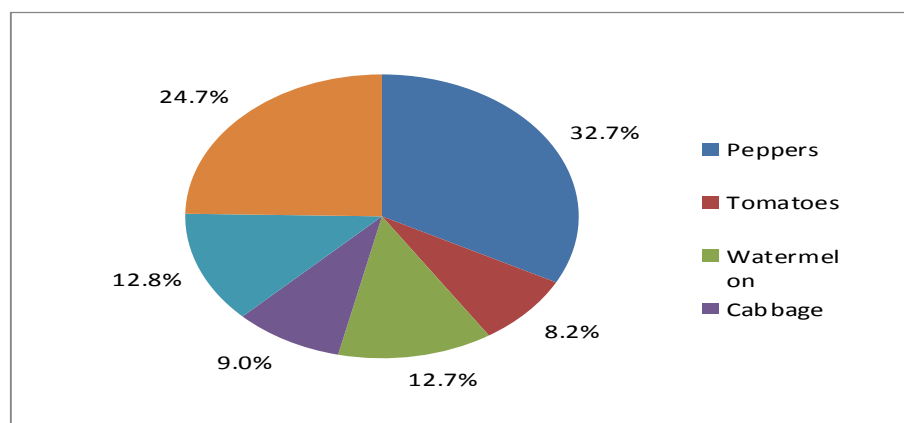


2.2 Vineyards

The total area of vegetables in the open field, greenhouses and gardens is 9 289,06 ha.

Table 2.3: Vegetables on arable land - fields, area, open field production, greenhouses, gardens

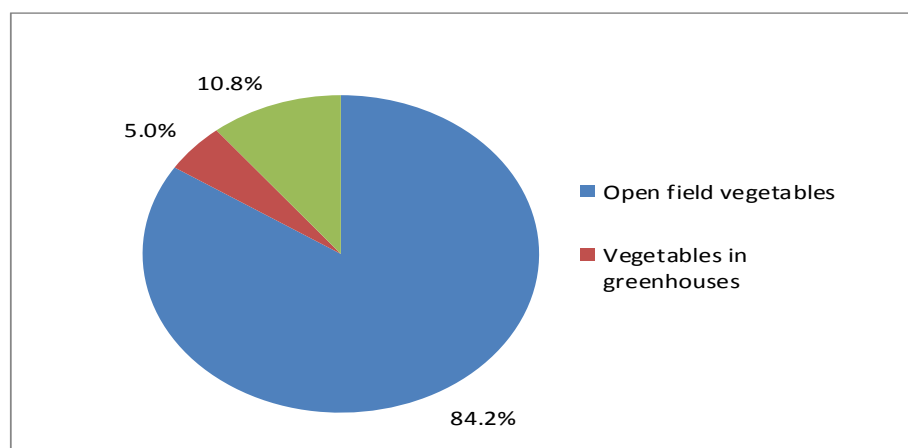
Crops	Area (ha)	Production (ton)	Yield (t/ha)
Vegetables	9.289.06		
Peppers	3.037.90	49.907.33	16.4
Tomatoes	757.09	22.639.20	29.9
Cucumber	273.18	7.008.71	25.7
Onions	1.184.68	16.317.11	13.8
Garlic	146.33	873.49	6.0
Watermelon	1.182.33	22.918.41	19.4
Melon	297.51	4.141.01	13.9
Cabbage	832.00	21.997.15	26.4
Cauliflower	45.53	725.21	15.9
Spinach	159.75	1.347.76	8.4
Salad	77.77	683.29	8.8
Corn squash	809.66	18.375.99	22.7
Parsley	10.67	86.95	8.1
Leek	72.40	1.303.06	18.0
Aubergine	6.32	106.79	16.9
Turnip	4.67	38.85	8.3
Red beet	8.66	73.03	8.4
Carrot	111.76	1.492.55	13.4
Strawberry	234.19	1.315.68	5.6
Other vegetables	36.66	297.76	8.1

Graph 2.5: Structure of areas with vegetables in open fields, greenhouses and gardens

Among the most important vegetables are peppers 3 037,90 ha, onions 1 184,68 ha; watermelon with 1 182,33 ha, cabbage with area 832,00 ha, tomatoes with 757,09 ha and other vegetables 2 295,07 ha.

Table 2.4: Area and production of vegetables in open fields, greenhouses and gardens

Crops	In the arable land - fields								
	In the open field			In greenhouses			In the garden		
	Area (ha)	Production (ton)	Yield (t/ha)	Area (ha)	Production (ton)	Yield (t/ha)	Area (ha)	Production (ton)	Yield (t/ha)
Vegetables	7.818.16			468.21			1.002.70		
Peppers	2.600.64	40.158.59	15.4	151.53	3.975.73	26.2	285.73	5.773.00	20.2
Tomatoes	392.83	11.402.70	29.0	161.30	6.350.82	39.4	202.97	4.885.68	24.1
Cucumber	108.34	2.436.41	22.5	97.95	2.979.18	30.4	66.88	1.593.12	23.8
Onions	954.71	13.141.61	13.8	18.51	353.96	19.1	211.46	2.821.54	13.3
Garlic	83.27	487.00	5.8	2.22	16.16	7.3	60.84	370.32	6.1
Watermelon	1.160.62	22.381.73	19.3	1.21	35.11	29.1	20.50	501.58	24.5
Melon	280.44	3.866.55	13.8	2.76	27.61	10.0	14.32	246.85	17.2
Cabbage	790.58	20.699.71	26.2	6.67	312.82	46.9	34.75	984.62	28.3
Cauliflower	39.16	606.43	15.5	0.58	6.69	11.5	5.79	112.10	19.4
Spinach	132.03	1.036.09	7.8	11.41	116.47	10.2	16.32	195.20	12.0
Salad	58.34	471.22	8.1	7.80	101.34	13.0	11.63	110.73	9.5
Corn squash	799.15	18.194.13	22.8	-	-	-	10.51	181.86	17.3
Parsley	7.31	51.02	7.0	0.15	3.09	20.6	3.21	32.84	10.2
Leek	51.63	894.92	17.3	2.49	54.88	22.0	18.28	353.25	19.3
Aubergine	4.58	67.56	14.8	0.03	0.54	16.1	1.71	38.69	22.7
Turnip and reed beet	9.92	70.19	7.1	0.35	4.32	12.5	3.06	37.38	12.2
Carrot	94.55	1.278.93	13.5	0.83	14.63	17.6	16.38	199.00	12.1
Strawberry	219.30	1.174.55	5.4	1.02	12.22	12.0	13.87	128.92	9.3
Other vegetables	30.76	236.03	7.7	1.41	20.28	14.3	4.49	41.45	9.2

Graph 2.6: Structure of area with vegetables

In total, the main area of vegetables is in the open field with 7 818,16 ha followed by garden with 1 002,70 ha and greenhouses with 468,21 ha.

2.3 Second crops

Table 2.5: Area and production with second crop (after first harvest)

Crops	Area (ha)	Production (ton)	Yield (t/ha)
Green corn	211.72	2.260.29	10.68
Cabbage	99.19	2.361.86	23.81
Spinach	65.79	271.26	4.12
Salads (lettuce)	18.40	124.12	6.74
Onions	9.59	79.94	8.34
Other (tomatoes, peppers, cucumbers, cauliflower, parsley, turnip, etc.)	40.52	614.19	15.16

In total, the second crop area was 445.2 ha, while green corn participates with 47.6 %, cabbage by 22.3 %, spinach with 14.8 %, onion with 2.2% and other crops 9.1%.

2.4 Fruits

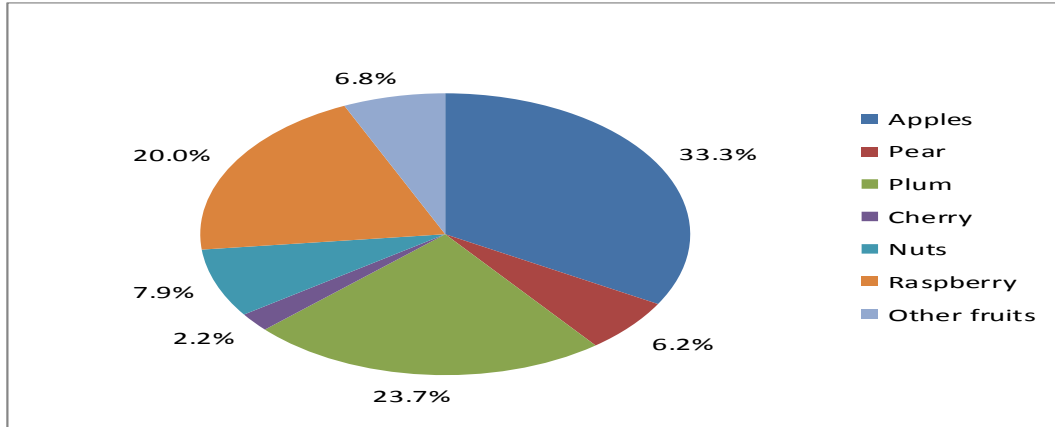
The area of plantations of fruits is 7 687,40 ha, while the area of used agricultural land participates with 1.8%.

Table 2.6: Fruits-planted area, production and yield

Crops	Area (ha)	Production (ton)	Yield (t/ha)
Fruits	7.687.40		
Apples	2.556.25	26.093.44	10.21
Pear	478.66	3.500.35	7.31
Quince	63.96	925.34	14.47
Medlar	49.68	178.71	3.60
Plum	1.821.25	10.643.46	5.84
Cherry	82.18	409.66	4.98
Sour cherry	167.28	426.71	2.55
Peaches	34.45	199.22	5.78
Apricots	13.81	38.48	2.79
Nuts	608.17	760.79	1.25
Hazelnut	119.16	29.38	0.25
Raspberry	1.536.79	8.267.40	5.38
Blackberry	24.21	246.06	10.16
Bilberry*	37.29	305.78	8.20
Other fruits (aronia berry, etc.)	94.26	265.16	2.81

* The data for blueberry data are obtained from MAFRD subsidies due to the low number of observation in the surveys in 2018.

Graph 1.7: Structure of the areas with fruits



The most important crops of fruit are apples with area of 2 556,25ha (33,3%), then plum fruit with the area of 1 821,25 ha (23,7 %), raspberries with the area 1 536,79 ha (20,0 %), (19.7%) and pear with the area 478,66 ha (6.2 %).

2.5 Vineyards

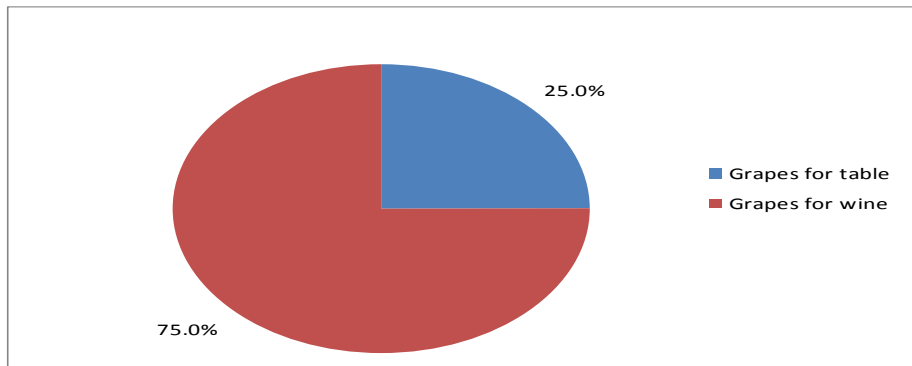
Vineyards plantation area is 3 271,62 ha, while the area of agricultural land use accounts for (0.8%).

Table 2.7: Area planted with vineyards, production and yield

Crops	Area (ha)	Production (tonns)	Yield (t/ha)
Vineyards	3.271.62		
Grapes for table	816.45	4.997.76	6.12
Grapes for wine	2.455.17	22.324.33	9.09

Data source: MAFRD

Graph 1.8: Structure of the surface by type of grape



The area of agricultural land cultivated with grapes for wine is 2 455,17 ha, or (75,0%), while table grapes had agricultural land area of 816,45 ha or (25,0%).

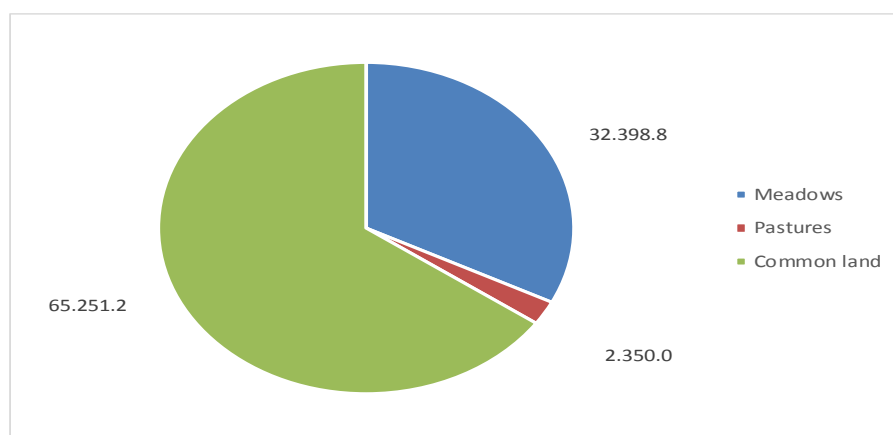
2.6 Meadows, pastures and common land

The area of meadows, pastures and joint land was 218 152.41 ha, while the area of used agricultural land participates with (52.1%).

Table 2.8: Area of meadows, pastures and common land, production and yield

Crops	Area (ha)	Production (tonns)	Yield (t/ha)
Total	218.152.41		
Meadows	70.678.75	249.559.28	3.5
Pastures	5.126.64	-	-
Common land	142.347.02	-	-

Graph 1.9: Structure of area of meadows, pastures and common land



Of which common land was 142 347.02 ha or (65.3%), while meadows participate with the area of 70 678.75 ha or (32.4 %) and pastures with the area of 5 126.64 ha or (2.4%).

2.7 Irrigation

The total area of agricultural land which can be irrigated was 43 573.59 ha.

Table 2.9: Irrigated area

Irrigation	Area (ha)
Total area of agricultural land which can be irrigated	44.214.46
Irrigated area at least once during the reference period	29.015.86

3. Livestock

Livestock represents the most intensive branch of agricultural production with multiple counts as for producers and consumers alike.

Livestock production is the basis for intensive agricultural production. The development of livestock production provides the basis for building a wide range of processing capacity.

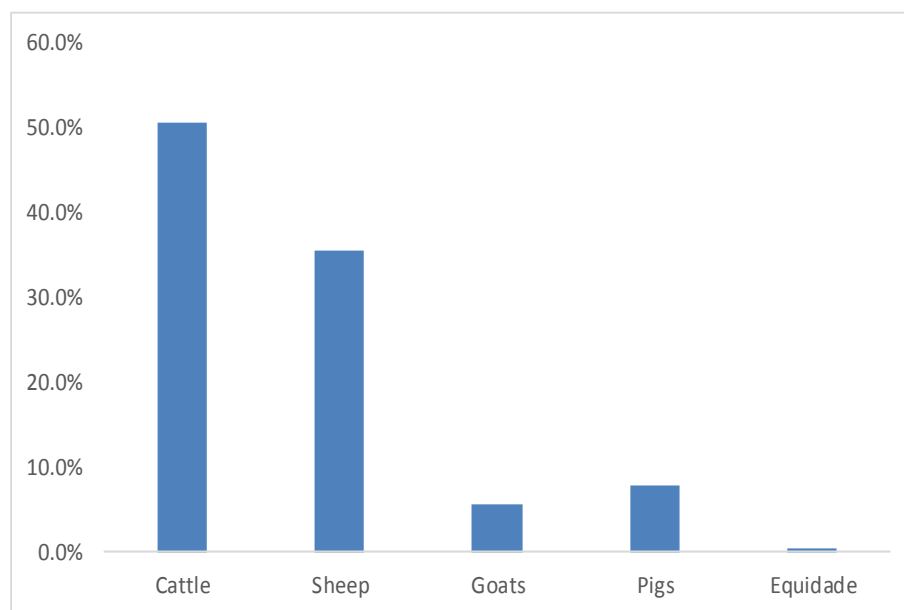
Participation of livestock production in the structure of agricultural production shows the level of agricultural development in total.

Number of animals which is presented in this publication refers to 1 November, 2018.

Table 3.1: Number of animals by species

Cattle	Sheep	Goats	Pigs	Equidade	Poultry	Number of bee hives
258.662	181.105	28.703	40.164	1.944	2.568.032	182.476

Graph 3.1: Participation of various animal species



3.1 Cattle

According to Agricultural Households Survey 2018, the number of cattle is 258 662 heads (this includes buffaloes, since this category is in the small number in Kosovo with 820 heads).

Table 3.2: Number of cattle by age group, gender and destination

Category	Description	Number / heads
Cattle aged less than 1 year old	Male	41.911
	Female	41.263
Cattle 1 to less than 2 years old	Male	14.627
	Heifers	12.335
Cattle 2 or more years old	Male	5.519
	Heifers	9.635
	Milk cows	132.474
	Other	898
Total		258.662

According to the percentage, the largest share is the number of dairy cows by 51.2%, with 132, 474 heads.

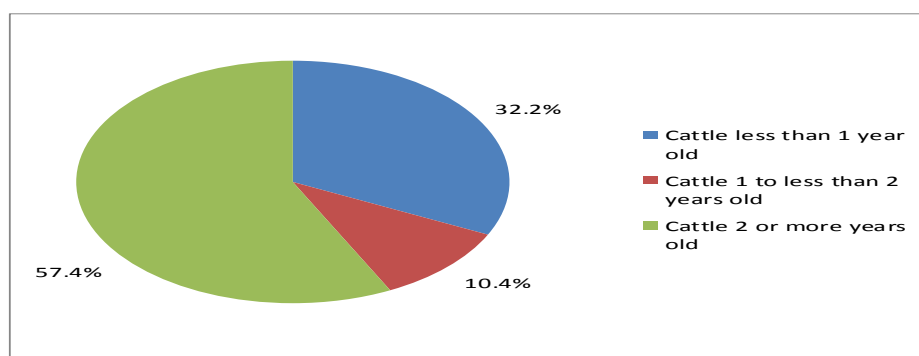
Also, in this publication are presented the number of other cows which are not dairy and do not participate in reproduction, and their number is 898 heads.

The presented structure of the cattle is divided by age, in three categories (age group); see table below.

Table 3.3: Number of cattle by age group

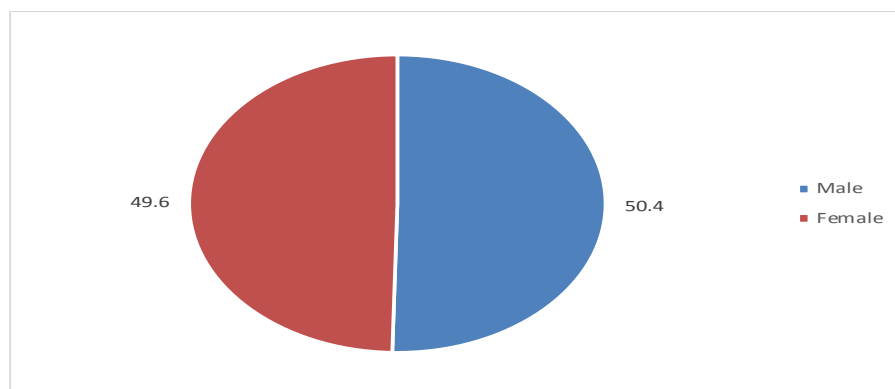
Grupmosha	Numri/krerë
Gjedhe të moshës më pak se një 1 vjeç	83.174
Gjedhe 1 deri me pak se 2 vjeç	26.962
Gjedhe 2 e më shumë vjeç	148.526

Graph 3.2: Structure of the number of cattle by age group

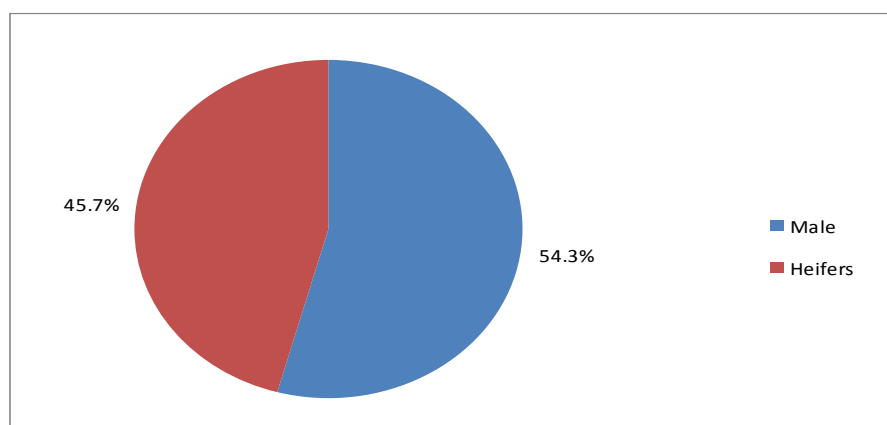


The table and graph indicate that most of the number of cattle according to age is the number of cattle aged 2 or more years of age, with 148.526 (57.4%) heads.

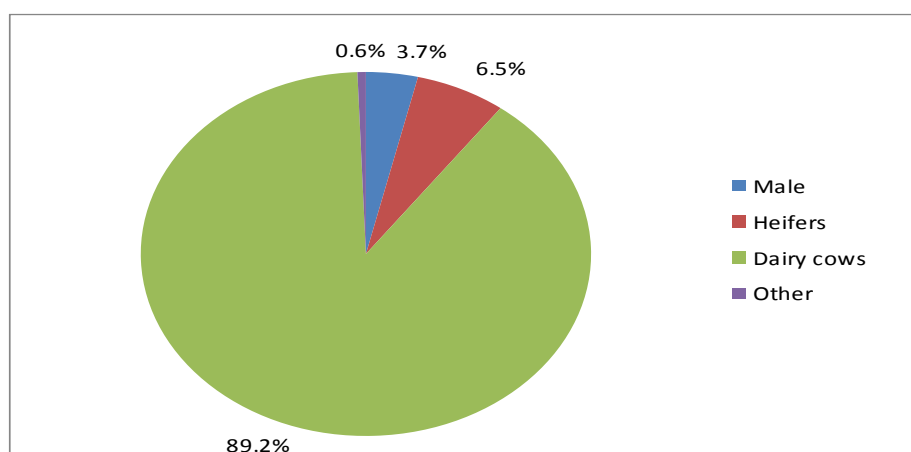
Graph 3.3: Cattle aged less than 1 year old, by gender



Graph 3.4: Cattle aged 1 to less than 2 years old, by gender



Graph 3.5: Cattle aged 2 and older, by gender and destination



It can be seen that cattle in different age groups have a different gender structure.

In the age group I (less than 1 year old) there is a slight dominance of the male gender (50.4%), whereas in the age group II (1 to less than 2 years old) dominant is also male gender (54.3%) , while in the age group III, female gender accounts for 95.7%, only dairy cows account for 89.2%.

Of the cattle, the most important role is the dairy cows, which represent the main species of cattle keeping due to milk production.

The number of dairy cows is 132 474, while the share of dairy cows in the total number of cattle reaches 51.2%.

3.2 Sheep

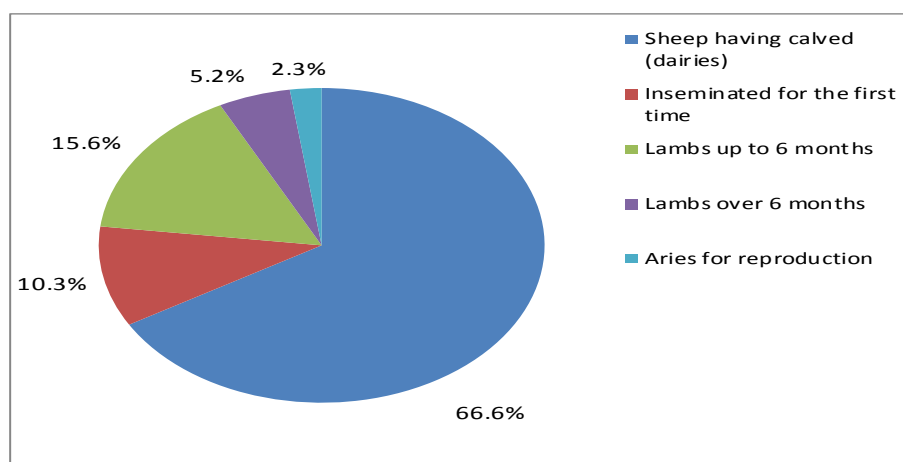
Sheep and sheep production constitute the important part of livestock production, after the cattle. According to the survey, the number of sheep in Kosovo amounts to 181 105 heads.

Table 3.4: Number of sheep by category

Category	Description	Number / heads
Sheep	Sheep having calved (dairies)	120.599
	Inseminated for the first time	18.713
Other	Lambs up to 6 months	28.179
	Lambs over 6 months	9.473
	Aries for reproduction	4.141
Total		181.105

Most of the number of sheep consists of the dairy sheep that have calved, with 120 599 heads (66.6%) from the total number of sheep.

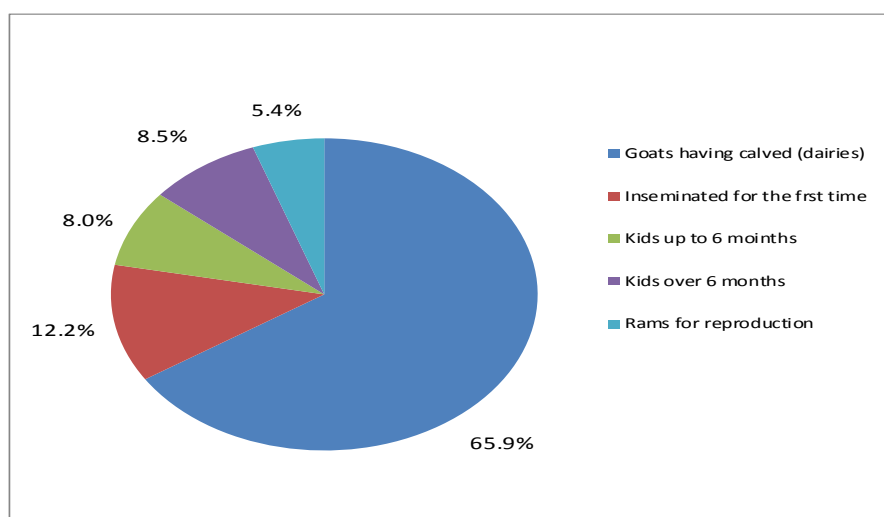
Graph 3.6: Structure of the number of sheep



3.3 Goats

Table 3.5: Structure of the number of goats

Category	Description	Number / heads
Goats	Goats havind calved (dairies)	18.901
	Inseminated for the frst time	3.500
Other	Kids up to 6 moinths	2.292
	Kids over 6 months	2.452
	Rams for reproduction	1.558
Total		28.703

Graph 3.7: Structure of the number of goats

Much of them are dairy goats 18,901 (65.9%), while kid, as an important category, accounts for 4 744 (16.5%) of the total number of goats in Kosovo.

3.4 Pigs

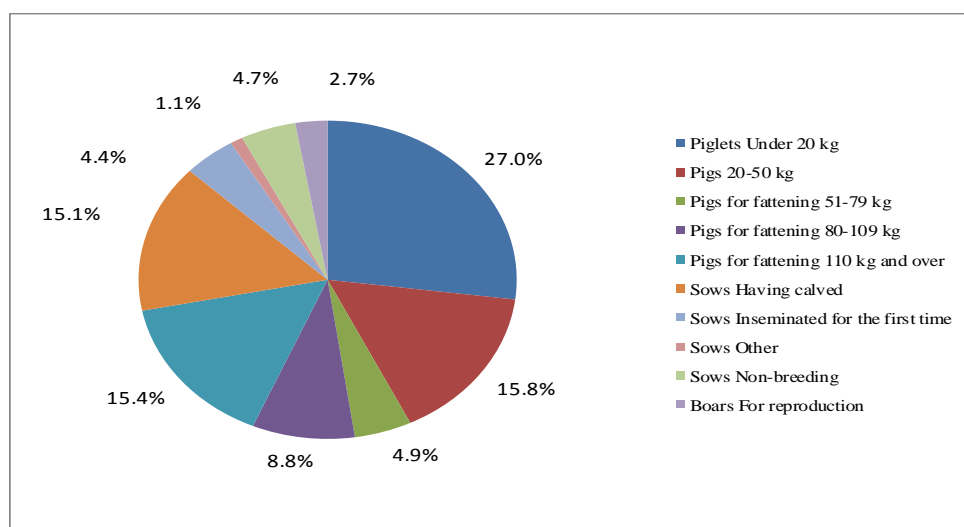
The number of pigs is presented in the table, by weight and destination.

Table 3.6: Number of pigs by weight and destination

Category	Description	Number / heads
Piglets	Under 20 kg	10.836
Pigs	20-50 kg	6.351
Pigs for fattening	51-79 kg	1.966
	80-109 kg	3.525
	110 kg and over	6.194
Sows	Having calved	6.070
	Inseminated for the first time	1.786
	Other	439
	Non-breeding	1.893
Boars	For reproduction	1.104
Total		40.164

The number of pigs in Kosovo is 40 164 heads, while the bulk of the number of pigs constitutes piglets weighing under than 20 kg with 10 836 (27.0%).

Graph 3.8: Structure of pigs by weight and destination



3.4 Equidae

Equidae are presented in a single number, as a total of equidae, which includes horses, donkeys and mules.

Table 3.7: Equidae

Category	Number / heads
Total equidade (horses, donkeys and mules)	1.944

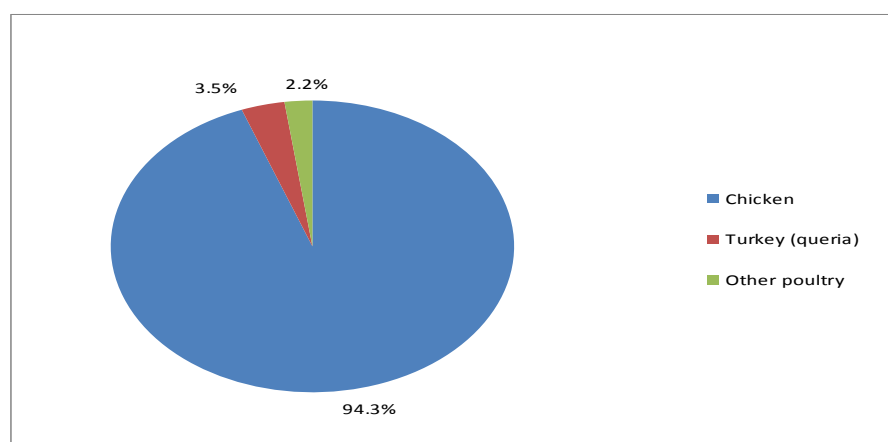
3.5 Poultry

The number of poultry is collected by species, age and destination.

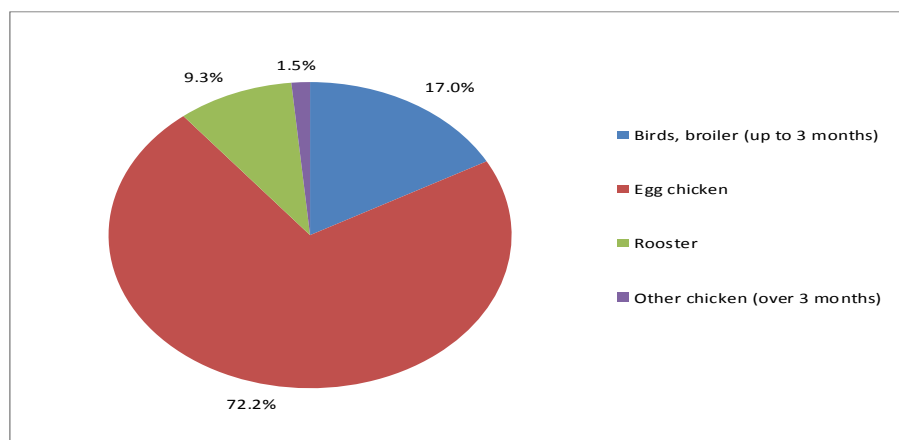
Table 3.8: Poultry

Category	Description	Number
Chicken	Birds, broiler (up to 3 months)	406.655
	Egg chicken	1.757.859
	Rooster	223.357
	Other chicken (over 3 months)	35.549
Turkey (queria)	Turkey birds (up to 3 months)	22.106
	Egg turkey	41.067
	Turkey (queria)	20.254
	Other (over 3 months)	4.866
Other poultry	Ducks, geese, etc.	56.319
Total		2.568.032

Graph 3.9: Structure of different species of poultry



Graph 3.10: Structure of the number of chicken



The graph indicates that for poultry dominate chickens (broilers, egg chickens, turkeys). Whereas, if we look at the structure of chickens only, we find that the highest number of chickens is reached by egg chickens, 72.2%.

3.6 Bee hives

Table 3.9: Bee hives

Description	Number
Number of bee hives	182.476

3.7 Production and use of milk (in the last 12 months) 2018

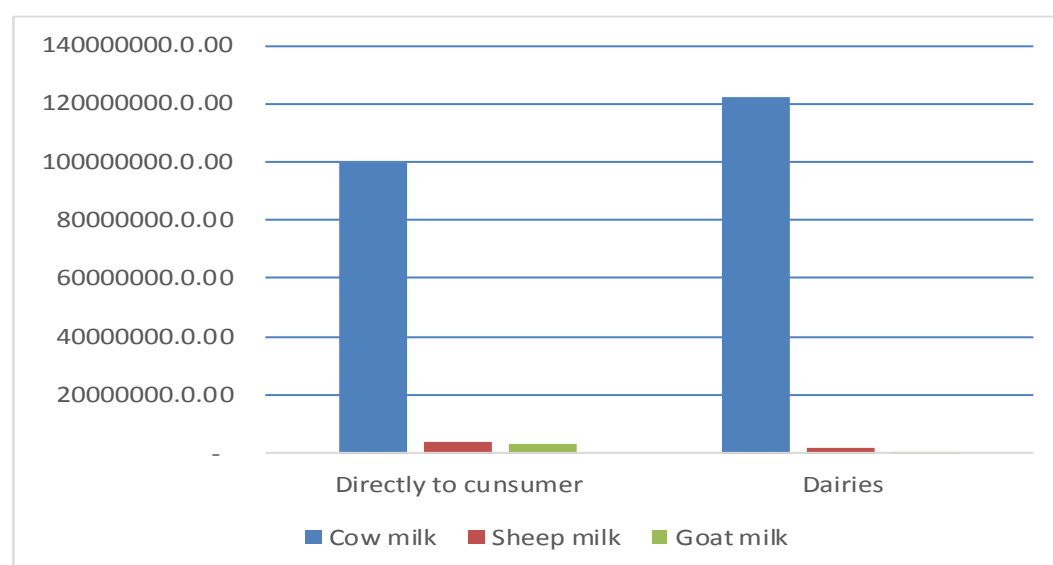
The total amount of milk produced in Kosovo is 324 572 037.50 liters. Out these, 304 041 093 liters of milk produced from 132 474 dairy cows, 14 250 208.50 liters of milk produced from 120 599 dairy cows, 6 280 736.00 liters of milk produced from 18 901 dairy goats.

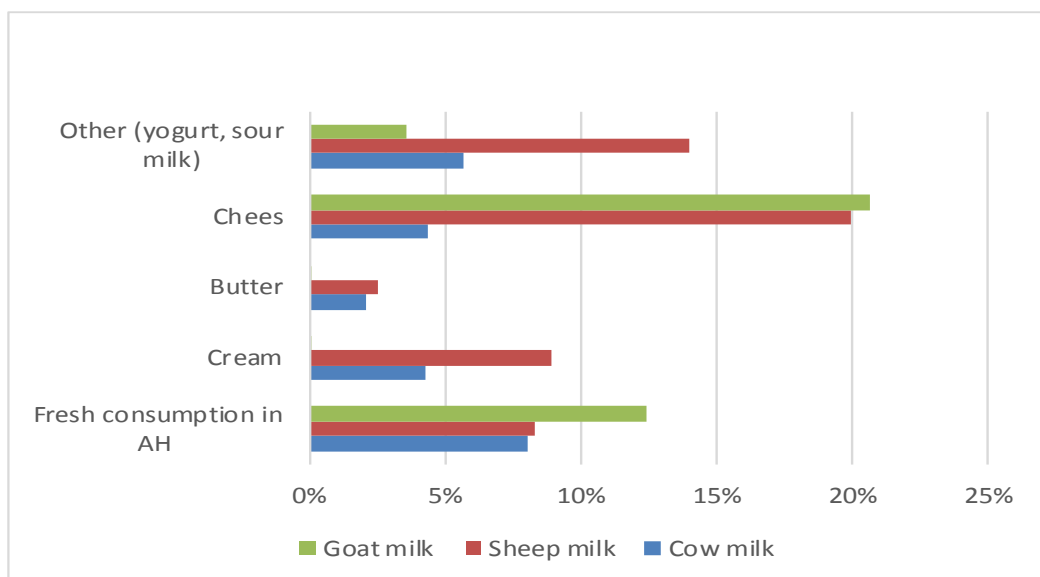
Table 3.10 Production and use of milk (in the last 12 months) 2018

Type of milk	Total production	For cattle	For household consumption	Processing in the agricultural holding			
				Cream	Butter	Cheese	Other (yogurt, sour milk)
	(liters)	(liters)	(liters)	(liters)	(liters)	(liters)	(liters)
Cow milk	304.041.093.00	7.388.732.27	24.416.705.65	12.958.416.53	6.372.736.06	13.318.856.16	17.296.021.62
Sheep milk	14.250.208.51	1.140.023.12	1.182.757.61	1.268.271.18	356.260.04	2.850.041.70	1.995.035.17
Goat milk	6.280.736.00	719.720.01	779.319.41	3.358.24	2.758.04	1.296.513.48	228.217.15
TOTAL	324.572.037.51	9.248.475.39	26.378.782.66	14.230.045.95	6.731.754.14	17.465.411.35	19.519.273.94

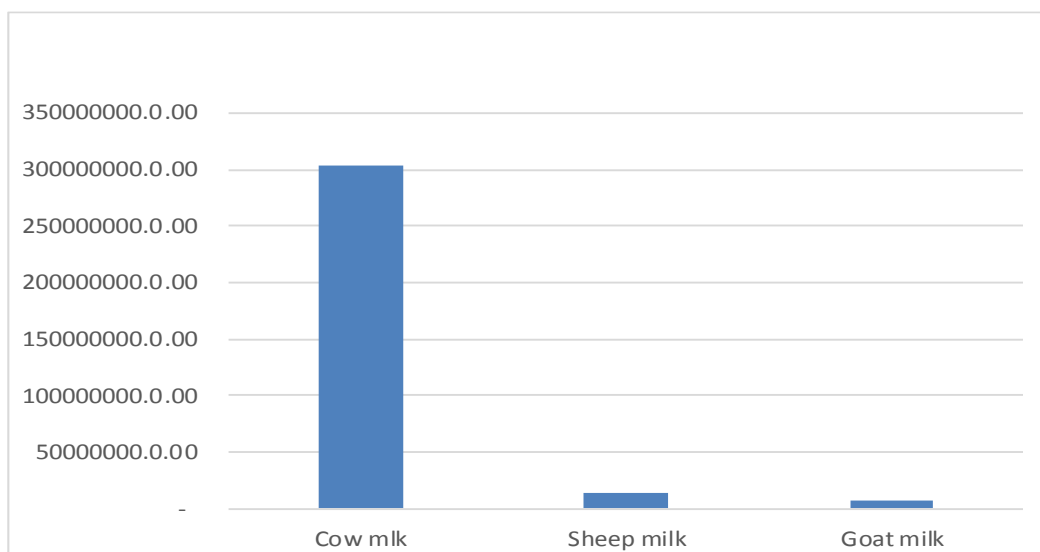
Table 3.10. Production and use of milk (in the last 12 months) 2018 (continued)

Type of milk	Shitjet	
	Directly to consumer	Dairies
	(liters)	(liters)
Cow milk	99.907.064.90	122.382.509.91
Sheep milk	3.990.063.90	1.467.755.80
Goat milk	3.115.862.88	134.986.80
TOTAL	107.012.991.67	123.985.252.51

Graph 10. Amount of milk production in liters in Kosovo**Graph 11. Use and processing of milk by AH**



Graph 12. Milk sale (liter)



4. Agricultural inputs

This survey provided data on agricultural inputs, mineral fertilizers, manure and pesticides.

4.1 Use of mineral and organic fertilizers

Table 22 presents the use of different types of mineral fertilizers and table 23 presents the use of manure. Mineral fertilizers are used by most farmers. NPK, often used for basic fertilization during planting, is the most used of all inorganic fertilizers. Most of the rest are URE and NAGs that are mainly used for re-fertilization after planting the plant / germination.

Table 4.1: Use of mineral fertilizers in agricultural crops

Plehu mineral											
Group of crops	Area of fertilized land	NPK		NAG		URE		Other		Total (NPK, NAG, URE, other)	
	Ha	kg	kg/ha	kg	kg/ha	kg	kg/ha	kg	kg/ha	kg	kg/ha
Cereals	112.052	27.017.444	241	4.378.760	39	20.090.091	179	3.047.187	27	54.533.481	487
Fooder crops	12.664	2.509.910	198	594.950	47	1.041.988	82	167.351	13	4.314.199	341
Vegetable	6.080	2.607.907	429	1.075.225	177	319.525	53	187.472	31	4.190.129	689
Fruits	2.642	437.165	165	56.800	21	185.223	70	123.359	47	802.547	304
Meadows and pastures	25.712	4.277.710	166	662.930	26	1.721.775	67	152.590	6	6.815.005	265
Other	6.498	2.482.393	382	262.978	40	644.243	99	129.381	20	3.518.996	542
Total	165.649	39.332.529	237	7.031.643	42	24.002.845	145	3.807.340	23	74.174.357	448

Table 4.2: Use of organic fertilizers by group of agricultural crops

Organic fertilizer			
Group of crops	Area in ha	Tonns	Tonns / ha
Cereals	29.731	446.397	15.0
Fooder crops	4.836	65.768	13.6
Vegetables	2.614	61.245	23.4
Fruits	1.062	16.204	15.3
Meadows and pastures	13.431	176.858	13.2
Other	1.653	30.097	18.2
Total	53.326	796.568	14.9

Tables 4.1 and 4.2 indicates the use of mineral and organic fertilizers in agricultural crops. It shows the fertilized area, the amount, the average use of mineral fertilizers and manure per hectare. It is important to note that the quantities are given in gross value. This means that there is no direct information on the net use of active substances in different mineral fertilizers. The average amount of mineral fertilizer used is 448 kg / ha. Whereas, the average amount of manure used is 14.9 tonnes / ha.

4.2 Pesticides

In this survey, data were collected for the total utilized area of agricultural land in which pesticides were used: (herbicides, fungicides, insecticides, other pesticides: rodenticide - against rodents, acaricides - against spiders, etc.).

Table 4.3: Used area of agricultural land in which pesticides are used

Pesticides	Area (ha)
Used area of agricultural land treated with pesticides	116.998.64

Used area of agricultural land in which pesticides are used is 116 998,64 ha.

5. Farm expenditures

Data on the expenditures of the Agricultural Holdings were collected during the survey by trying to fill the existing vacuum in economic statistics, at farm and agricultural holding level. Gradually, such economic data at farm level will be made available through the Farm Accountancy Data Network (FADN) in accordance with definitions of the EU.

Table 5.1: Structure of the farm expenditure

Types of expenditure	Total	
	Euro	%
Mineral fertilizers	30.054.549.00	18.1%
Organic fertilizers	1.319.714.00	0.8%
Chemicals - pesticides (herbicides, insecticides, fungicides, etc.)	7.677.021.00	4.6%
Seeds and seedlings (excluding resale materials)	14.849.514.00	8.9%
Animal feed and supplemental food	19.907.232.00	12.0%
Purchase of animals and poultry	10.419.753.00	6.3%
Veterinary services, herbs, semen, fees for fertilization, etc.	5.465.051.00	3.3%
Wages and salaries, in cash or in kind	6.325.120.00	3.8%
Fuels (petroleum, gasoline, oil, wood, natural gas, etc.), for the activities of the agricultural holding	25.867.732.00	15.6%
Repairs and maintenance of agricultural machines, equipment and agricultural vehicles	7.973.394.00	4.8%
Contracted services and rent for vehicle use - ordinary work, contracted work, vehicle rental, truck transportation, harvesting, spraying of agricultural crops, seed production, packaging, etc.	14.918.913.00	9.0%
Maintenance and regular repair of buildings and fences of the agricultural holding	1.978.235.00	1.2%
Rent granted for the use of land and buildings (including community pastures and grazing fees)	5.675.153.00	3.4%
Electricity for the needs of the agricultural holding	3.768.867.00	2.3%
Expenditures of the agricultural holding to pay the loan interest, eg bank loans (do not include principal payment)	4.034.520.00	2.4%
All other operating expenses of the agricultural economy such as transport of goods, packing materials, irrigation fees, legal fees and accounts, etc. (no amortization is included)	5.856.542.00	3.5%
Total operating expenditures of the agricultural holding for the last 12 months	166.091.310	100.0

Catalogin in publication – **(CIP)**

The National end Universiy Lybrari of Kosova “Pjetër Bogdani”

63/502(496.51)”2018”(084)

Agricultural Holdings Survey 2018 / publication was prepared by
Bajrush Qevani...et al. - Prishtina : Kosova Agenciy of Statistice,
2019. - 35 f. : ilsutr. ; 28 cm. - (Serie 2: Agriculture and
Environment Statistics)

1. Qevani, Bajrush

ISBN 978-9951-22-579-3

Kosovo Agency of Statistics

short description

Kosovo Agency of Statistics is a professional institution which deals with collection, processing and publication of official statistical data. As such acts since 1948 and has passed through several historical stages, structured according to state regulation of those times.

On 2 August 1999, the Agency has resumed his professional work (after nine years of interruption of all statistical series detrimental to the interest of Kosovo), as an independent institution under the Ministry of Public Administration. Since 12.12.2011 the Agency operates in the frames of the Prime Minister's Office. Office is funded by the Kosovo Consolidated Budget, but also by donors for specific projects and for technical professional support.

Kosovo Agency of Statistics acts according to the Law No. 04/L-036 which entered into force on 12.12.2011. Programme of Official Statistics 2013/2017 is in implementation for the development of statistical system in correlation with the European Union statistics (EUROSTAT).

Kosovo Agency of Statistics has this organizational structure: production departments; Department of Economic statistics, Department of National Accounts, Department of Agriculture and Environment statistics and Department of Social statistics. **Support Departments**; Department of Methodology and Information Technology, Department of Policy Planning, Coordination and Communication, Department of Census and survey and Department of Administration. **Within the Agency are also established Regional Offices**; Gjakove, Gjilan, Mitrovica, Peja, Prizren, Pristina and Ferizaj

In KAS are employed in total 155 workers, of whom 100 (68,0 %) at the headquarters of the Agency, while in the Regional Offices, 47 (32,0%). Agency's educational qualifying structure is as follows: 75,5% with university education, 12,3% with with non-tertiary education, and 12.3% with secondary education.

We have professional and technical cooperation with all Ministries of the Government of Kosovo, especially with the Ministry of Economy and Finance, Central Bank of Kosovo, with international institutions, EUROSTAT, International Monetary Fund, World Bank, Sweden's SIDA, DFID, UNFPA, UNDP, UNVEF, and with the statistical institutions of the countries in the region.

Kosovo Agency of Statistics almost completely covers the territory of Kosovo, based on the statistical structure of the enumeration areas as the basic unit and sole in the country from which it gets first hand information. All surveys conducted in the field use the extension of the samples in these enumeration areas but also a statistical methodology according to international recommendations. During the collection of statistical data and reports from reporting entities are involved professionals, technicians, administrators, servants of the country offices, field enumerators from regional offices, etc.

In 2011, the project of Population Census , Households and Dwellings was successfully implemented, and in 2014 was successfully carried out the Agriculture Census. The result obtained from these censuses will have an important role in the development policies.

The mission of the Agency; to meet the needs of users with qualitative statistical data, objective, in time and space so that users have reliable base to conduct regular analysis in the interest of planning and project development at the municipal and country level. To support government institutions, scientific institutes, research academies, businesses in order to provide proper information for decision-makers and other users in Kosovo.

- **Address: KOSOVO AGENCY OF STATISTICS**
Street. "Zenel Salihu", No. 4, 10000 Pristina
- **Telephone:** +383 (0) 38 200 31 129
CEO: +383 (0) 38 200 31 112
- **Fax::** +383 (0) 38 235 033
- **E-mail:** infoask@rks-gov.net
- **Web:** <http://ask.rks-gov.net>

ISBN 978-9951-22-579-3

