



Survey Report on Agriculture

Crop Production

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LIST OF ABBREVIATIONS

NGO	Non-governmental organization
MFAGG	Ministry of Foreign Affairs of the German Government
MAFRD	Ministry of Agriculture, Forestry, and Rural Development
PPP	Plant Protection Products
FAO	Food and Agriculture Organization
IPM	Integrated Pest Management
HBA	Harmful Biological Agent

SUMMARY

This report has resulted from a survey conducted with the recipients of grants that were provided through two projects - Support to Social-Economic Stability through Empowerment of the Micro-Business Sector in Kosovo and Self-Employment Training Program - funded by the Ministry of Foreign Affairs of the German Government and implemented by the Kosovo office of Help - Hilfe zur Selbsthilfe e.V. Help Kosovo provides social and economic assistance to vulnerable individuals susceptible to poverty and negative social phenomena. The overall objective of the projects is to contribute to sustainable development and stability in targeted areas with the main focus on economic empowerment.

This is the first research based on opinions collected through a survey from farmers who produce crops. The survey included 328 farmers from different regions of Kosovo, a total of 22 municipalities. The surveyed farmers were mainly those growing various agricultural crops, such as: fruit-producing trees, grape-bearing vines, cereals, vegetable gardens, and seedlings. Dairy farmers, beekeepers, and farmers working in agricultural processing of various products were not included in this survey. Out of 328 farmers, who received different agricultural tools and equipment as grants, 278 or 85% responded to the survey. This report provides a summary of the research results on the use of farmland, crop production, and agricultural inputs for 2020.

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INTRODUCTION

Help – Hilfe zur Selbsthilfe e.V. is a German, Bonn-based non-governmental organization, funded by the Ministry of Foreign Affairs of the German Government (MFAGG), which currently provides assistance to people in need in 23 countries. Help office in Kosovo, once active in 1999, resumed its operations and has been active since 2015. The first project Help implemented in Kosovo was Socio-Economic Stability Support through Empowerment of the Micro-Business Sector in Kosovo, which, among many sectors, has also supported the agricultural sector. Out of the total number of grants provided thus far, 41% have been in the agricultural sector.

The agricultural sector is considered to have high-growth potential and great strategic importance for Kosovo, which can significantly impact the economic development of the country. Poverty reduction in rural areas, environmental protection, and sustainable management of natural resources are increasingly important objectives for agricultural extension, whereby the main environmental issues include:

- Preservation of natural resources: (land, water, forests)
- Maintenance of biodiversity and improvement of protected area management
- Preservation of water quality and protection of accumulating lakes
- Sufficient and quality production
- Improvement of food chain in the country
- Safety from pesticides and waste reduction
- Food safety, etc.

RESEARCH PURPOSE

The main purpose of this study was to collect information from farmers in rural areas on the current situation and their cultivation practices to provide an adequate overview for the improvement of agricultural productivity in these areas. Another goal was to provide data on how much the grants have impacted their economies and agricultural activities.

The objective of this survey was to provide data on the working conditions of farmers, the use of farmland, crop production, and agricultural inputs.

The results of this research will enable the undertaking of a series of initiatives for the compilation of international standards and their application, for a healthier production, and sustainable economic development in Kosovo.

RESEARCH MATERIALS AND METHODS

The data collection method used to conduct this research was a survey administered face-to-face, in the form of interviews, whereby a total of 114 farmers, or 41%, responded to questionnaires during monitoring and site-visits. Another 164 farmers, or 59% of the total respondents, were interviewed by telephone in an inability to pay on-site visits due to the COVID-19 pandemic emergency measures. The responses received during telephone interviews were recorded directly on a database instead of on paper, as this work was completed from home for safety reasons.

The questionnaire included questions about the farmers' farming practices with a focus on the type of crops they grow, type of cultivation (organic vs. conventional), measures applied for protection from insects, diseases, weeds, etc.

The survey was conducted from February 3 to April 17, 2020.

The research took place in three phases:

- Preparatory Phase
- Data Collection Phase (completion of questionnaires during interviews with farmers)
- Data Analysis Phase

Preparatory Phase - Preparation of the questionnaire and classification of regions for visits to farmers.

Data Collection Phase- is based on the survey conducted on-site and includes the completion of questionnaires during face-to-face interviews, as well as the part of the survey conducted over the phone. A total of 278 farmers responded to the survey.

Data Analysis Phase - is the final phase of analyzing the data collected through the survey and presenting the results in tables and charts.

Research regions

Kosovo has a very suitable shape - at its ends lie high, medium, and low mountains, while in its interior lie fields, valleys, and low mountains. Because of its geographical position, Kosovo has a predominantly continental climate with Mediterranean influence. The land area of Kosovo is divided into two plains - the Dukagjin Plain and the Kosovo Plain. Both of these plains have cropland which

meets the criteria for agriculture. The survey took place in almost all regions, a total of 22 municipalities, of the Republic of Kosovo.

- 1. In the municipality of Prishtina** a total of 68 farmers were interviewed from the villages of: *Dabishec, Keqekolle, Mramor, Marec, Prapashtica, Bardhosh, Hajvali, Grashtica, Rimanishtë, Shashkovc, Barilevë, Besi, Ballaban, Hajkobillë.*
- 2. In the municipality of Prizren** a total of 10 farmers were interviewed in the villages of: *Randobravë, Novak, Serbicë e Poshtme, Kabash i Hasit, Lubisht e Hasit, Krushë e Vogël, Reçan.*
- 3. In the municipality of Peja** a total of 20 farmers were interviewed in the villages of: *Nobergjan, Zahaq, Qyshk, Radavc, Gllaviqicë, Llozhan, Lutogllavë, Novosellë, Blagaje, Jabllanicë e Madhe, Vitomericë, Graboc, Katun i Ri.*
- 4. In the Municipality of Gjakova** a total of 17 farmers were interviewed in the villages of: *Cemjan, Jabllanicë, Gregoc, Rogovë, Planqor, Jahoc, Raç, Zhdrellë, Rashkoc, Kodrali, Bec, Batushë, Nivokaz, Gerkovc, Dobrigjë.*
- 5. In the municipality of Mitovica** a total of 17 farmers were interviewed in the villages of: *Broboniq, Zhabar, Suhudoll i Epërm, Ribar, Vinarc i Epërm, Bajgorë, Kçiq i Vogel, Pirq, Mazhic, Bare, Zasellë, Lushtë.*
- 6. In the municipality of Ferizaj** a total of 8 farmers in the villages were interviewed in the villages of: *Fshat i Ri, Bablak, Varosh, Greme, Kosinë, Gacka, Nerodime.*
- 7. In the municipality of Gjilan** a total of 11 farmers were interviewed in the villages of *Ponesh, Nasalë, Llashticë, Sllakoc i Epërm, Shillovë, Zhegër, Livoq*

i Ulët, Livoq i Epërm, Malishevë e Ulët, Kmetoc, Gumnishtë, Dobërqan, Cernicë.

8. In the municipality of Viti 1 farmer was interviewed from the village of *Gjylekarë.*

9. In the Municipality of Vushtrri a total of 16 farmers were interviewed in the villages of: *Studime e Poshtme, Studime e Epërme, Bukosh, Akashticë, Maxhunaj, Sllakoc, Vernicë, Dumnicë e Poshtme, Pestovë, Mihaliq, Brusnikë, Gllatvotin.*

10. In the municipality of Suhareka a total of 15 farmers were interviewed in the villages of: *Grejkoc, Peqan, Samadrexhë, Bllace, Bukosh, Gjinoc, Vershec.*

11. In the municipality of Istog a total of 13 farmers were interviewed in the villages of: *Dubravë, Dobrushë, Carallukë, Lubovë, Zabllaq, Cerrq, Lluga, Kerrninë, Lubozhdë, Shushicë.*

12. In the municipality of Deçan a total of 11 farmers were interviewed in the villages of: *Drenoq, Prekolluk, Gramaqel, Carabreg i Epërm, Bablloqe, Drenoc.*

13. In the municipality of Lipjan a total of 22 farmers were interviewed in the villages of: *Vershec, Ribar i Vogël, Gadime e Ulët, Gadime e Epërme, Babush, Janjevë, Akllap, Banullë, Ruboc, Sllavi, Brus, Hallaq i Vogël, Rusinoc, Krojmirë, Dobraj e Madhe, Konjuh, Gumnasellë, Teqe.*

14. In the municipality of Kaçanik only 1 farmer was interviewed.

15. In the municipality of Leposavic only 1 farmer was interviewed.

16. In the municipality of Novobërdë a total of 16 farmers were interviewed in the villages of: *Prekoc, G.kusce, Zebnicë, Koretish, Bostane, Vllasali, Izvor,*

Kolonia e Vjetër, Tërniqevc, Parallovë, Bushinqë, Straza, Prekoc, Parallovë, Koznicë e Epërme.

17. In the municipality of Gracanica: a total of 8 farmers were interviewed in the villages of: *Livade, Kishnica, Susica, Dobrotinë, Batushë, Gusterica.*

18. In the municipality of Shtërpce a total of 15 farmers were interviewed in the villages of: *Gotovushë, Vrbeshtica, Biti e Poshtme, Biti e Epërme, Sushicë, Brod.*

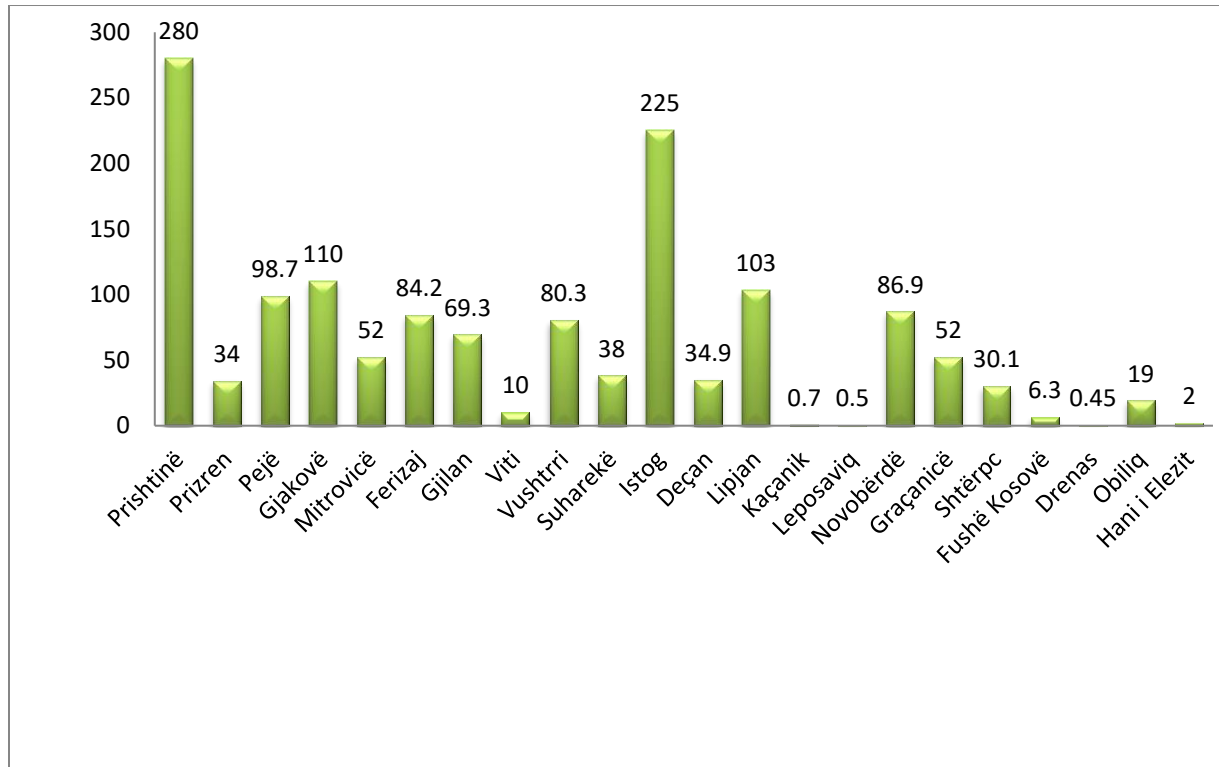
19. In the municipality of Fushë Kosovë a total of 3 farmers were interviewed in the villages of: *Bardh i Madh, Sllatinë e Vogël, Harilaq, Lismirë.*

20. In the municipality of Drenas only 1 farmer was interviewed in the village of *Llapushnik.*

21. In the municipality of Obiliq a total of 3 farmers were interviewed in the villages of: *Breznicë, Palaj, Kozaricë.*

22. In the municipality of Hani i Elezit only 1 farmer was interviewed in the village of *Dremjak.*

Figure 1. Areas of arable land calculated in / ha



RESULTS

In response to the survey, - with regard to the impact that farming equipment has had on farmers – the farmers said that they are grateful to Help for making it possible for them through grants to improve their working conditions. Farmers also added that the equipment they received has enabled them to work more efficiently and cultivate larger areas of farmland. Many of the surveyed farmers said that Help was "*the voice of hope for small farms*," as they had not had the opportunity before to benefit from such grants provided by similar organizations or institutions operating in the country.

Table 1. Farmers' statements during site-visits

L.K. from the village of Bardhosh, said that, with the grant he received from Help in the form of greenhouse heating equipment, his working conditions have greatly improved and now his entire family works at the greenhouse, where they grow pepper and tomato seedlings.

D.V. from the village of Marec, a grant recipient from the beekeeping sector, said that he has had multiple benefits from the grant, as better working conditions have caused his bees to have greater impact on the pollinisation of the fruit trees he cultivates. As a result, the trees have been producing higher yields.

A.F. from the village of Prapashtica, said that the plow and the milling machine he received as a grant, have made his work much easier, as now he no longer needs to hire other workers to plow his farmland and has lower costs. Also, he has diversified his crops and has been able to cultivate a larger area of land.

Exploitation of Arable Land

The exploited area of agricultural land refers to the total area of arable land - fields, meadows, perennial crops, and gardens - used by farmers. Based on the size of arable land area, the size of the farms included in the survey was on average 2.1/ha.

Table 1.2. The area of agricultural land exploited by the interviewed farmers

Land use	Area / ha
Arable land – field	946.65
Vegetable plantations	321.9
Tree plantations	145.09
Viticulture plantations	7.9
Seed plots	1
Meadows	200
Total exploited land area	1622.54

Agricultural Production

Table 1.2. Types of agricultural crops grown in the Kosovo region

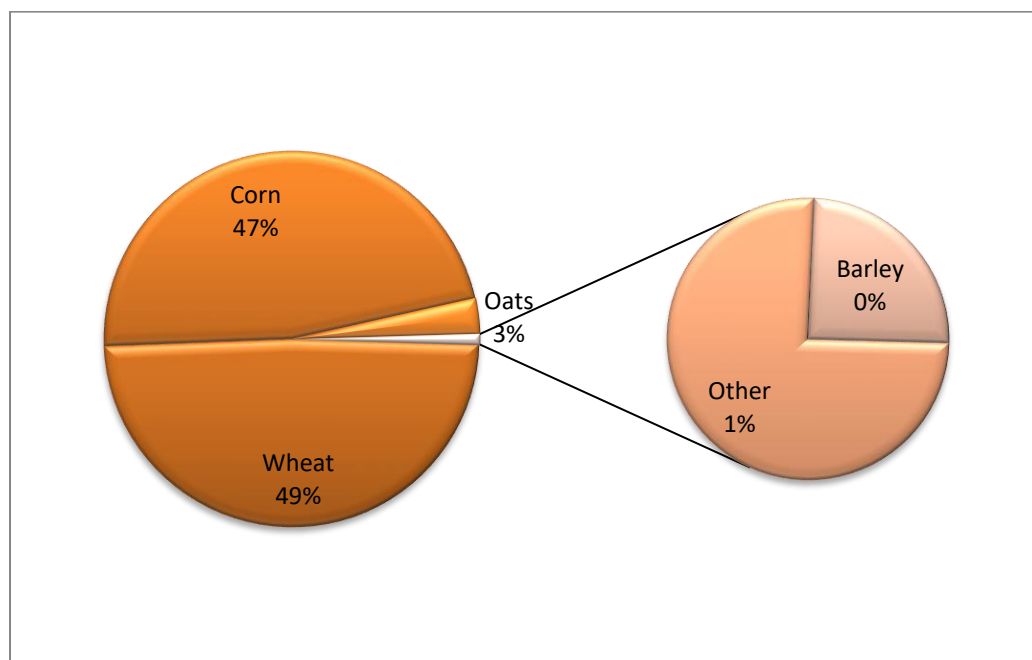
Cultivated plants	Area/ha
Wheat (<i>Triticum vulgare</i>)	460.13
Corn (<i>Zea mays</i> L.)	433.02
Patatoes (<i>Solanum tuberosum</i> L.)	110.22
Apples (<i>Malus domestica</i>)	61.24
Onions (<i>Allium cepa</i> L.)	55.3
Tomatos (<i>Solanum lycopersicum</i>)	42.38
Peppers (<i>Capsicum annuum</i> L.)	41.2
Plums (<i>Prunus domestica</i>)	28.96
Oats (<i>Avena sativa</i>)	28.5

Raspberries (<i>Rubus idaeus</i>)	25.92
Pears (<i>Pyrus</i>)	24.5
Alfalfa (<i>Medicago sativa</i>)	23
Cabbage (<i>Brassica oleracea</i>)	18.45
Cucumbers (<i>Cucumis sativus</i>)	11.65
Beans (<i>Phaseolus vulgaris</i> L.)	10.7
Grapes (<i>Vitis vinifera</i> L.)	7.9
Lettuce (<i>Lactuca sativa</i> L.)	6.05
Pumpkin (<i>Cucurbita pepo</i> L.)	6.5
Watermelon (<i>Citrullus lanatus</i>)	4.75
Medicinal plants (<i>Medicinal herbs</i>)	4.1
Asparagus (<i>Asparagus officinales</i>)	3.3
Melon (<i>Cucumis melo</i>)	3.1
Walnuts (<i>Juglans regia</i>)	2.8
Carrots (<i>Daucus carota</i> L.)	2.6
Barley (<i>Hordeum sativum</i>)	2
Strawberries (<i>Fragaria vesca</i>)	1.67
Garlic (<i>Allium sativum</i> L.)	1.6
Total	1421.54

Cereals

In Kosovo, the exploited area of agricultural land is 418 581.76/ha. The most important among cereals are wheat and corn, which are also the main crops grown in our country. The overall area of farmland planted with wheat and corn by the surveyed farmers was 933.63/ha. This area included plantations planted with cereals with an average size of 2.5/ha. According to the data from the Department of Plant Protection and Production (MAFRD), the cereal yield is 3.46 t/ha. (Fig. 1)

Figure 1. Cereals

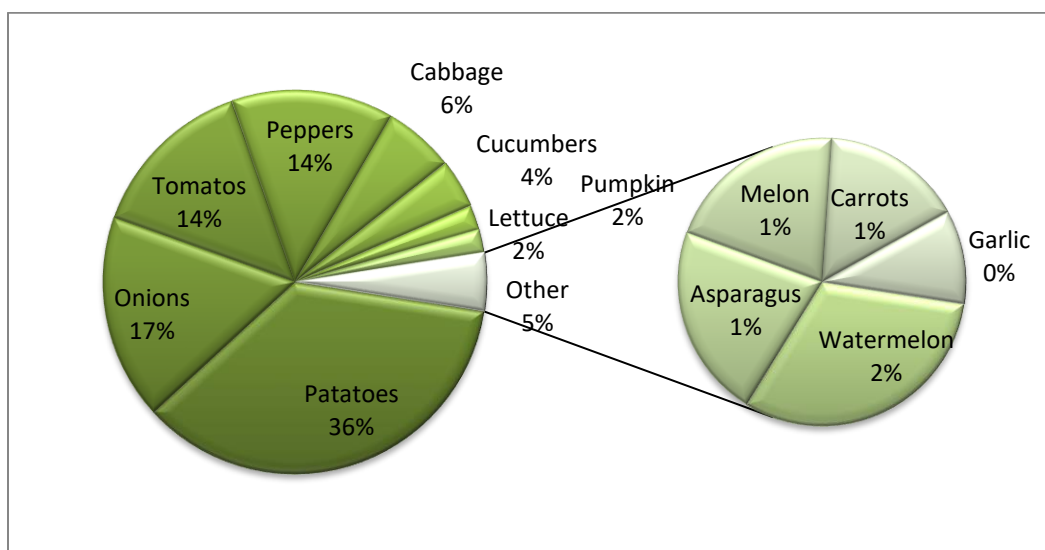


Vegetables

According to MAFRD, the vegetables planted in the open field and greenhouses in Kosovo, cover a total area of 9289.06 / ha. The area planted with vegetables by surveyed farmers was 317.05/ha. The most important vegetables are potatoes, which cover an area of 110.22 and yield 19.08 t/ha, onions - an area

of 53.3 and yield 13.77 t/ha, tomatoes – an area 42.38 and yield 9.90t/ha and peppers – an area of 41.2 and yield 16.43t/ha. The areas planted with vegetables are small plantations with an average size of 2.1/ha. (Fig. 2)

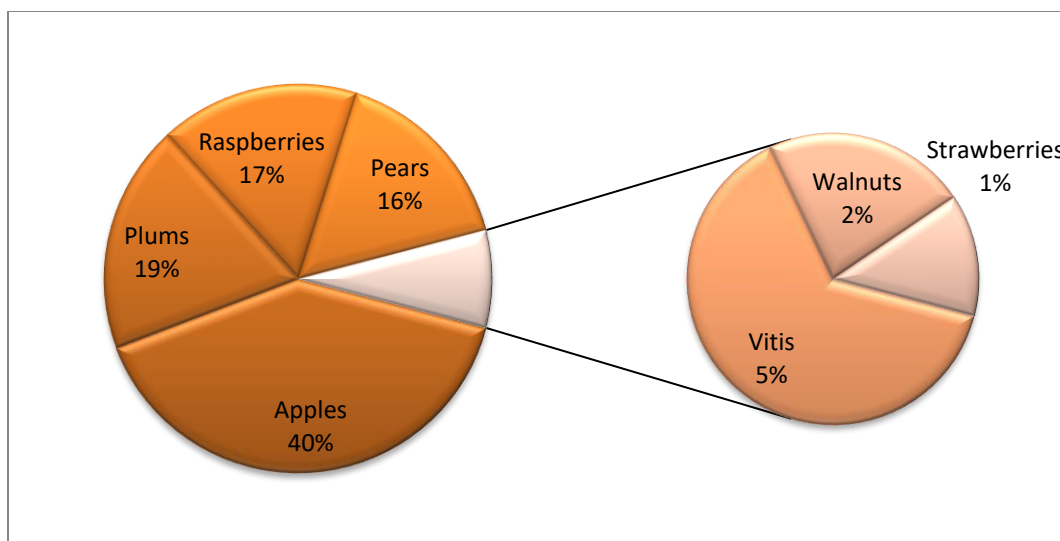
Figure 2. Vegetables



Orchards and Vineyards

The total area of orchards in Kosovo is 7687.40/ha. The areas covered by orchards and vineyards are small plantations with an average size of 1.5/ha. According to MAFRD, the most common fruits in Kosovo are apples – cover an area of 61.24/ha and yield 10.21t/ha, plums – cover an area of 28.96 and yield 5.38 t/ha; whereas, vineyards cover an area of 7.9/ha and yield 8.4 t/ha. (Fig. 6)

Figure 6. Orchards and Vineyards



CROP PROTECTION

Crop protection from pests and parasites is a very important link in the chain of crop growth that should start with agrotechnical measures. Without this link high, steady, and high quality yields cannot be obtained. According to FAO, worldwide losses from diseases, pests, and weed - from germination to harvest - are estimated to be 30-40%. The traditional system of agricultural production is prevalent in Kosovo. To ensure transition from traditional to modern agricultural practices, it is important to conduct scientific results-based research.

Based on the survey results, only 5% of farmers conduct soil analysis, whereas the vast majority (95%) do not, as they lack the financial means to cover the cost. For soil fertilization, 44% of farmers use organic fertilizers, while the remaining 56% use inorganic fertilizers, mostly those combined with Nitrogen, Phosphorus and Potassium (NPK-15: 15: 15). Farmers also reported that they use foliar fertilizers.



For organic fertilization, the farmers said they use dung, produced by the animals they own. (Fig.7); whereas, 39% of farmers stated that they make compost, which is a good way to manage plant waste as it reduces waste by transforming organic matter into humus, which in turn, plays an important role in improving soil structure and increasing microbiological activity. With regard to organic production, the farmers said they lack organic product certification.

Figure 7. Fertilizers used

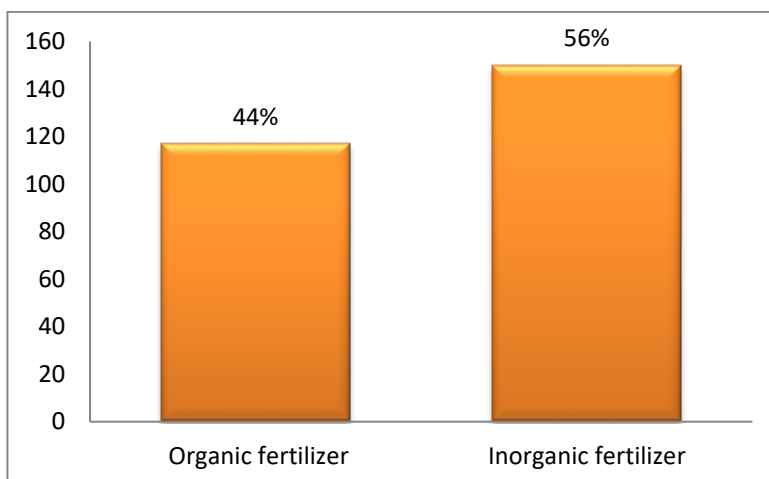
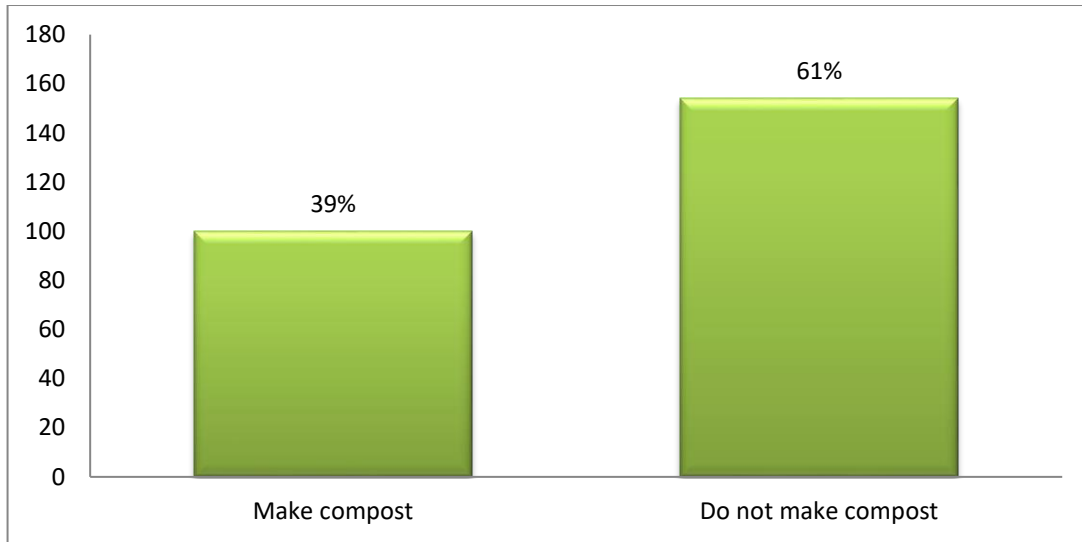
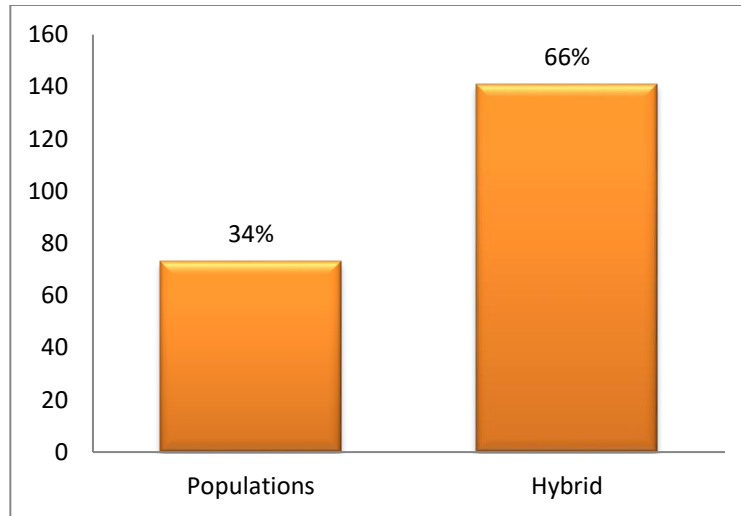


Figure 8. Farmers who make compost



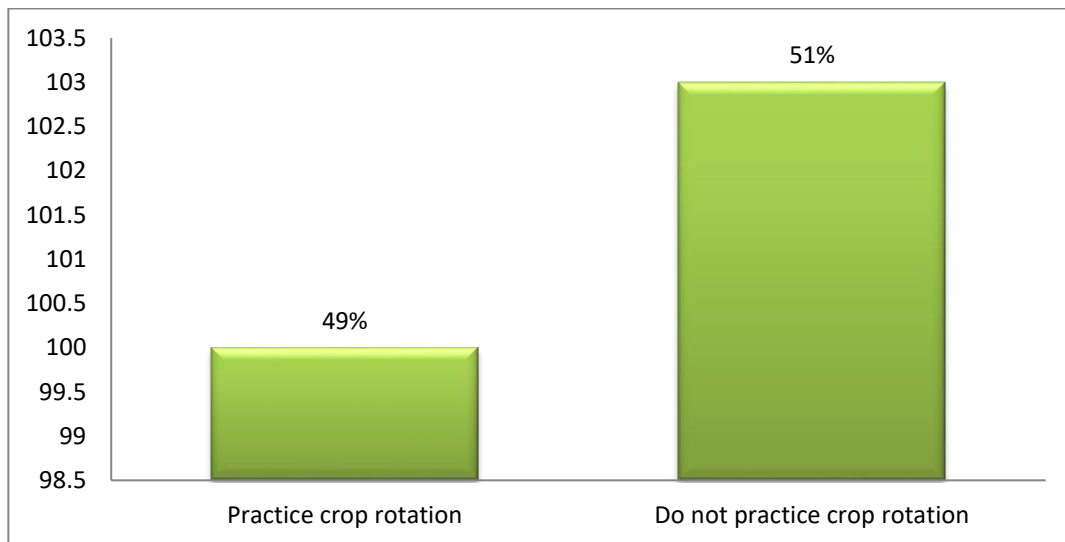
The use of seeds is one of the most important agricultural activities, as the use of selected and highly productive seeds results in high yields. The surveyed farmers claimed that 66% of the seeds they use for planting are hybrid seeds; whereas, 34% of the surveyed farmers use populations, or the seeds that they preserve year after year. Populations are mainly used by farmers who grow cereals, which are used for livestock. (Fig. 9)

Figure 9. Planting seeds



Another agrotechnical measure applied by farmers is crop rotation, which is very important for improving soil structure, whereby production increases by preventing diseases and various pests and controlling weeds. Farmers, who practice crop rotation, made up 49% of those surveyed. (Fig. 10)

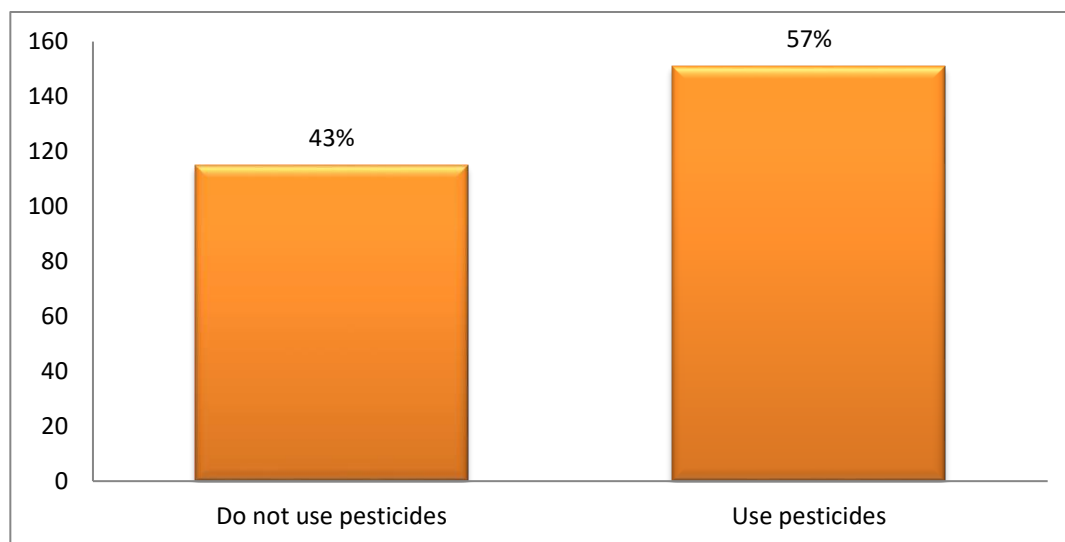
Figure 10. Farmers who practice crop rotation



Weeds

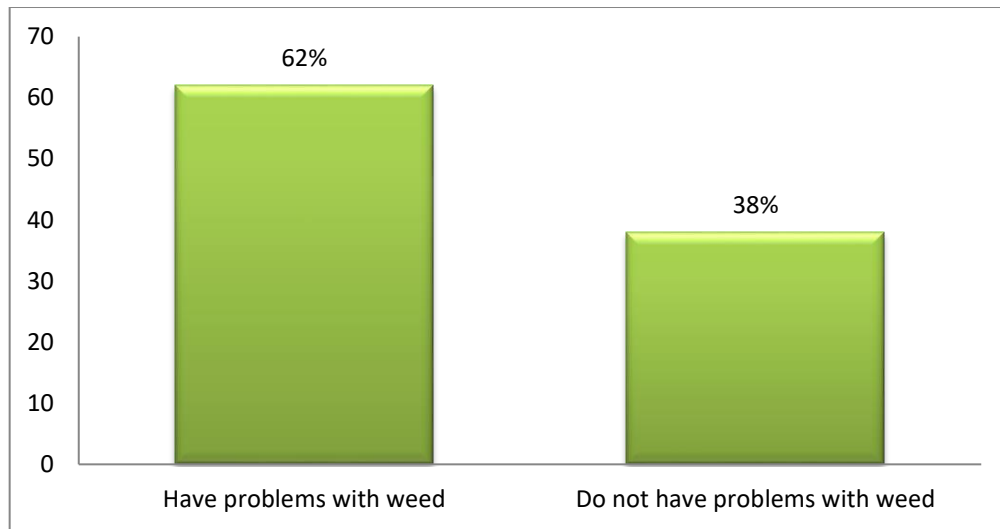
The survey results on crop growth in the regions where this research took place in 2020, show that the majority, 57% of farmers, use pesticides. Most of them stated that they know about pesticides, their use, and are mindful of keeping the residue levels low. Also, some stated that they cooperate with other farmers in treating the agricultural areas that they cultivate. Out of the total number of the surveyed farmers, 43% use different protective measures (agrotechnical, mechanical, physical measures, etc.) to control harmful biological agents (HBA). (Fig. 11)

Figure 11. Farmers who use pesticides



The survey results showed that HERBICIDES are the most widely used group of pesticides because there are numerous problems with controlling and managing weeds, especially in cereal crops, as reported by farmers. (Fig. 12)

Figure 12. Farmers who have problems with weed



Weed control is very important, as they compete with crops for space, nutrients, light, and water. Some weeds also damage the quality of crops and dairy products, they cause allergies in humans, carry many pests, diseases, etc.

Among the most common weeds in cereals is the Wild Oat (*Avena fatua*), which poses the greatest threat to grain production, as it is difficult to distinguish from crops. However, also present in cereals and vegetables are grass leaves and broad leaves weeds, such as:

WEEDS IN CEREALS
Common wild oat - <i>Avena fatua</i>
Creeping thistle - <i>Cirsium arvense</i>
Goosegrass - <i>Galium aparine</i>
Forking larking - <i>Consolida regalis</i>
Oriental larkspur - <i>Consolida orientalis</i>
Field bindweed - <i>Convolvulus arvensis</i>
Radial bifora - <i>Bifora radias</i>
Barnyard grass - <i>Echinochloa crus-galli</i>

Perennial ryegrass - <i>Lolium perenne</i>
Annual meadow grass - <i>Poa annua</i>
WEEDS IN VEGETABLES
Common chickweed- <i>Stelaria media</i>
Redroot pigweed - <i>Amaranthus retroflexus</i>
Lambds quarters - <i>Chenopodium album</i>
Jimsonweed - <i>Datura stramonium</i>
Common purslane - <i>Portulaca oleracea</i>
Black night-shade - <i>Solanum nigrum</i>

Some farmers said that, among selective herbicides in wheat crops, they use:

- **Sekator OD** (Amidosulfuron+ jodosulfuron-metil-natrium+protektant mefenpir-dietil)
- **Dikamin-720 WSC**(2,4-Ddimetil amonium)
- **Hussar Evolution** (Fenoksaprop-P etil + jodosulfuron-metil-natrium + mefenpir-dietil)

Other farmers said that, among selective herbicides in corn crops, they use:

- **Dikamin-720 wsc**(2,4-D -dimetil amonium)
- **Nicogan** (Nicosulfuron)
- **Merlin flexx OD** (Izoksaflutol+ciprosulfamid)
- **MaisterOD**(Foramsulfuron+jodosulfuron-metil natrium+izoksadifen)

Some farmers said that, among selective herbicides in vegetable crops, they use:

- **Sencor WG 70** (Metribuzin) Potatoes and Tomatoes
- **Mistral** (Metribuzin) Potatoes
- **Galigan** (Oskiflurofen) Onions

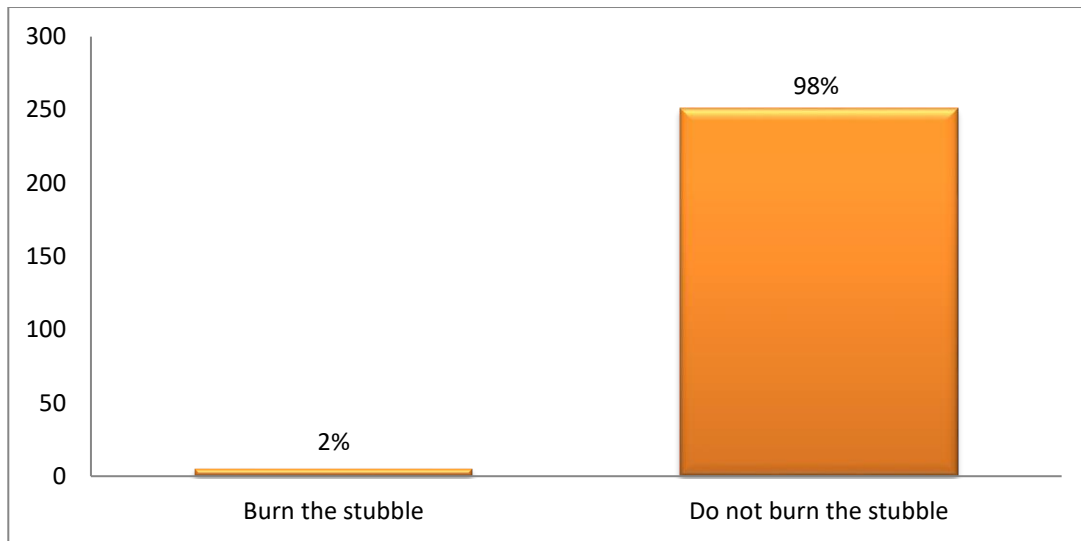


Many farmers stated that, among non-selective herbicides of systemic action and contact, in orchards they usually use:

- **Taifun** (Glifosat)
- **Basta 15** (Glufosinat amonium)

As for stubble burning, 98% of the surveyed farmers said that they do not burn their stubble. However, their cropland oftentimes catches fire due to some other farmers, who are unaware of the damage caused by fire. Because stubble burning causes the loss of organic matter, it also destroys other living organisms (bacteria, fungi, algae, protozoa, rainwater, etc.), which are useful and affect the processes of organic matter formation in the soil. (Fig. 13)

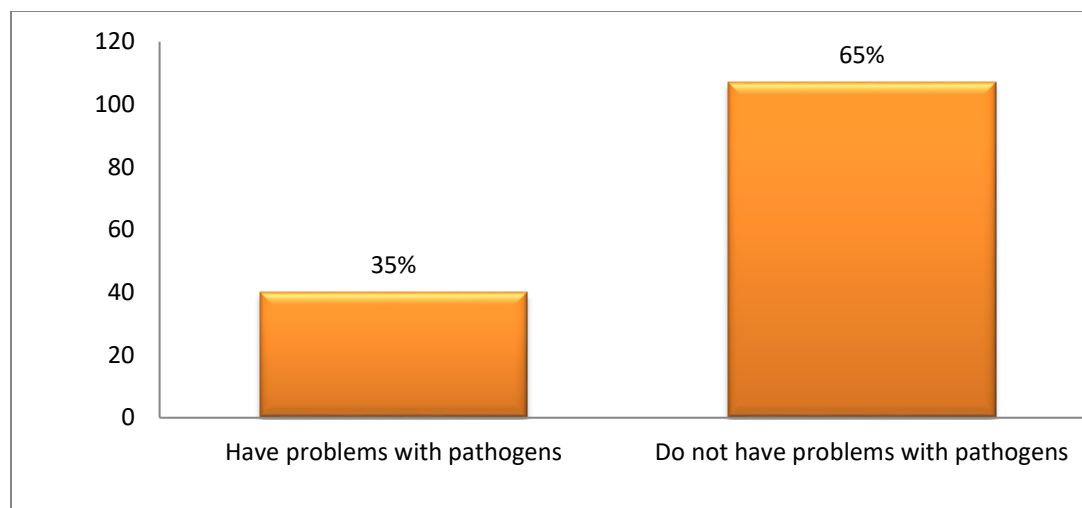
Figure 13. Farmers who burn the stubble



Pathogens

The process, from crop production to harvesting, is very important for fruits, vegetables, and whole grains. To maintain their nutritional value as they go through different phases, they should be kept in healthy, hygienic conditions, and be served to consumers in clean environments. Therefore, constant care should be taken as crops are exposed to many diseases, which are caused by various factors (insects, parasites, viruses, fungi, mites, bacteria) and many other microorganisms. Regarding the problems with pathogens, 35% of the surveyed farmers said that they have problems with pathogens. (Fig. 14)

Figure 14. Farmers who have problems with pathogens



Most of the reported problems with pathogens occurred in raspberry crops, where farmers had problems with Root Rot (*Phytophthora fragaria*); meanwhile, there are also speculations about problems with the Raspberry Spur Blight (*Didymella applanata*) and Crown Gall (*Agrobacterium tumefaciens*). Most of the farmers stated that the raspberry seedlings had been donated and they had not had phytosanitary certificates regarding their health. Many farmers no longer grow raspberries due to the great many problems they had in their plantations, and are looking into growing other crops. With regard to pepper crops, some farmers reported problems with Anthracnose (*Colletotrichum spp*); whereas, with regard to cereals, they reported to have had no significant problems.

As for the group of **FUNGICIDES**, farmers said that their orchards are mainly treated with:

- **Mineral oils**
- **Copper-Based Preparat**

Whereas for vegetables, they use fungicides:

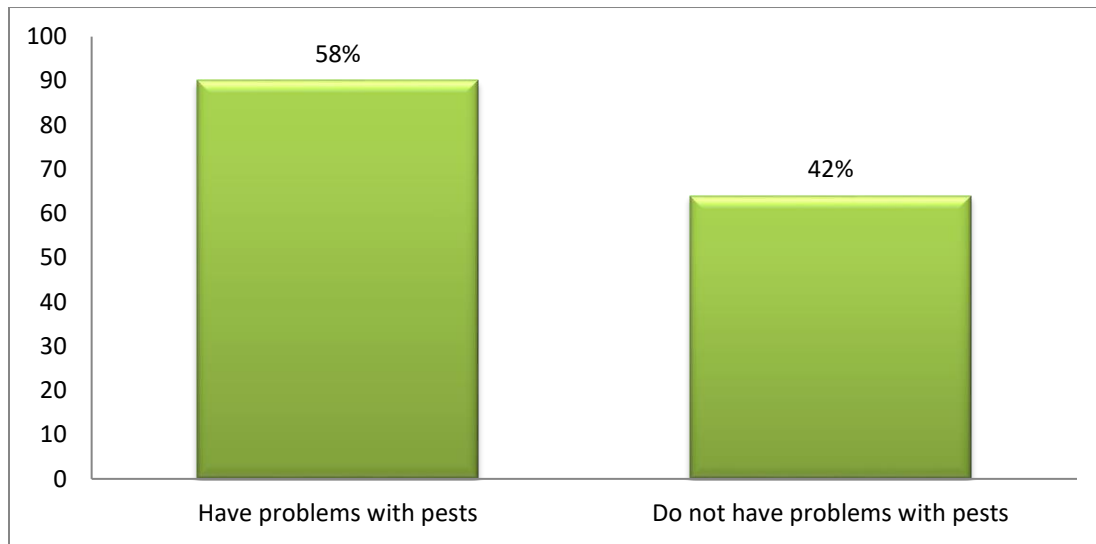
- **Aliette Flash** (Fosetyl aluminum)
- **Previcure** (Propamocarb fosetylal)



Insect Pests

Insects constitute the main and the largest group of pests, and are considered to be the main pests in agricultural crops, followed by mites, nematodes, and various HBA, which cause serious damage to agriculture, forestry, and annoyance to humans. Insects cause direct and indirect damage to plants. Direct damage when insects feed directly to plant juices; whereas, indirect damage when they become vectors of diseases in plants, especially in transmitting viruses. Their spread depends on several factors, such as: environmental conditions, climatic conditions, cultivation technology, type of pest, and level of measures taken against them. Regarding pests, 58% of the surveyed farmers reported problems with pests and said that they use various insecticides to control them. The rest of the farmers did not report any problems. (Fig. 15)

Figure 15. Farmers who have problems with pests



The survey showed that, among the most problematic pests in vegetables, especially in potato crops, is the Colorado Potato Beetle (*Leptinotarsa decemlineata*); whereas, in tomato crops in our country recently there have been problems with the Tomato Leafminer (*Tuta absoluta*), which is a very harmful insect that affects the Solanaceae family, in particular, the tomato. Aphids (*Aphidae* spp) are also quite present in most agricultural crops. Another pest in orchards is the Codling Moth (*Cydia pomonella*, *C. fenebrana*).

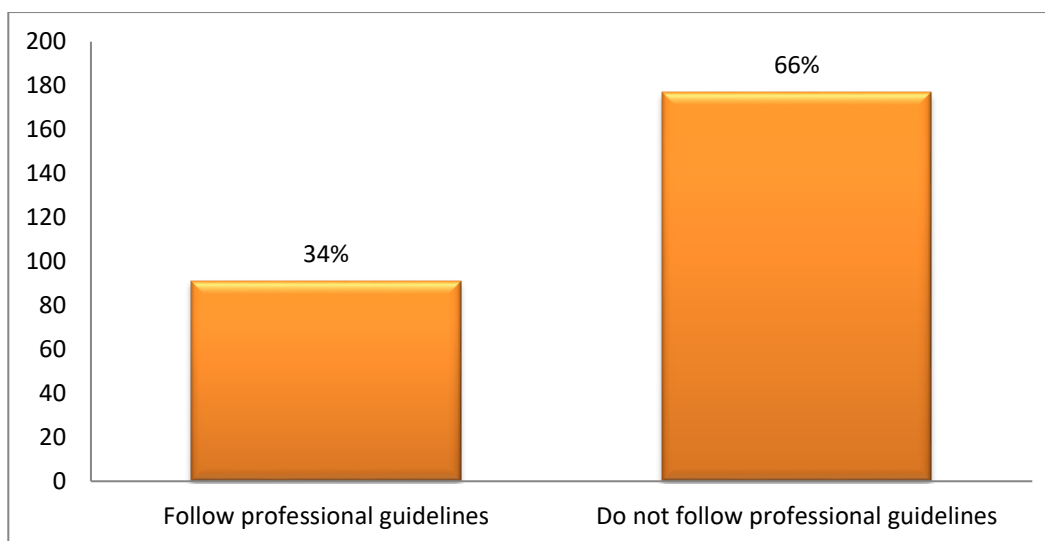
INSECTICIDES used for pest control are:

- **Mavrik** (Tau-fluvalinate)
- **Kohinor** (Imidacloprid)
- **Savanur** (Hlorpirifos + cipermetrin)
- **Actara 25 WG** (Thiamethoxam)
- **Mospilan** (Acetamiprid)



Based on the survey results, 66% of farmers do not consult agronomists, or do not work according to the local expert guidelines, which means that the remaining 34% of them follow these guidelines. (Fig. 16)

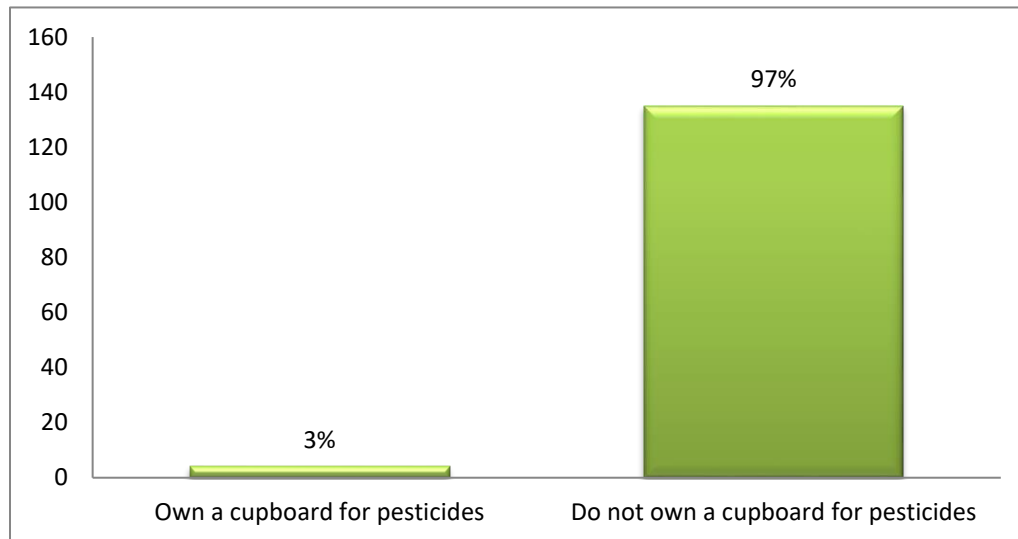
Figure 16. Farmers who follow professional guidelines



The storage of pesticides is of particular importance because they must be stored in separate spaces, in their original packaging, they must be kept separate from food for humans and animals, and away from other items for general consumption and children. Based on the survey results, with regard to storage of

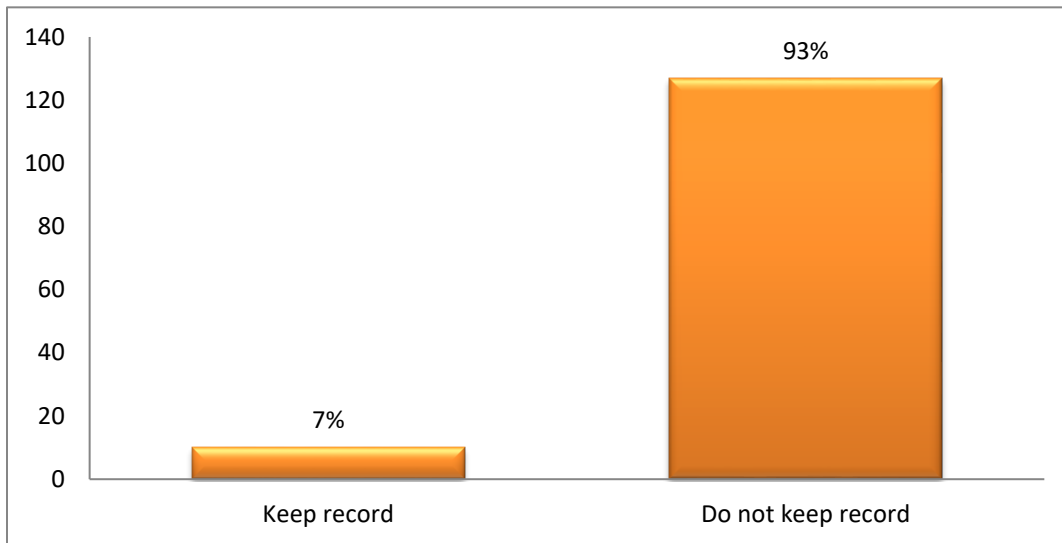
pesticides in appropriate places, only 3% of farmers said that they own a cupboard for pesticides, which means that the vast majority (97%) of them do not have a cupboard. Farmers generally apply protective measures based on their mostly traditional practices. (Fig. 17)

Figure 17. Farmers who own a cupboard for pesticides



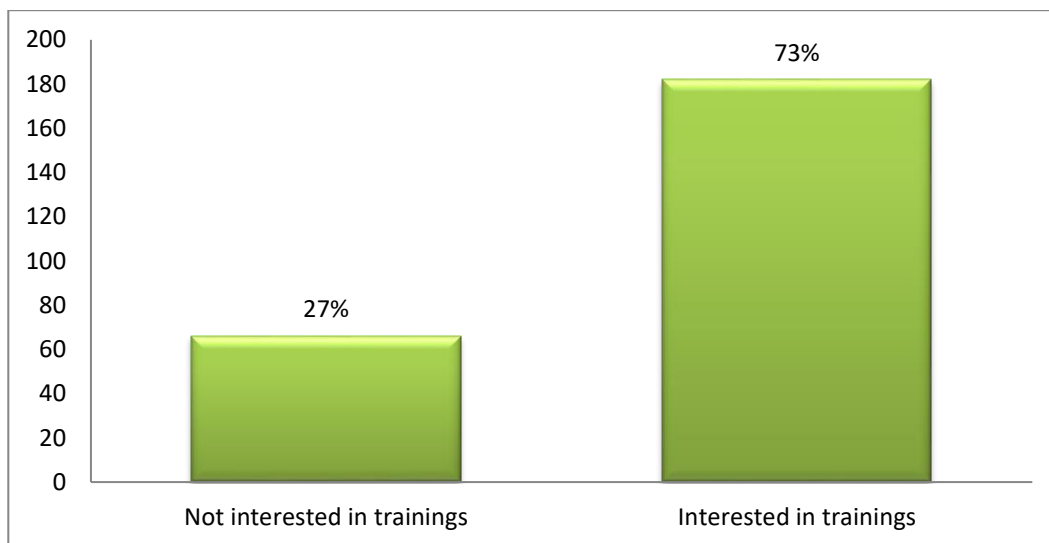
With regard to record keeping on the farm, 93% of the surveyed farmers said they do not keep record, while 7% keep record on the use of pesticides that they apply to crops and other activities on the farm. (Fig. 18)

Figure 4. Farmers who keep record



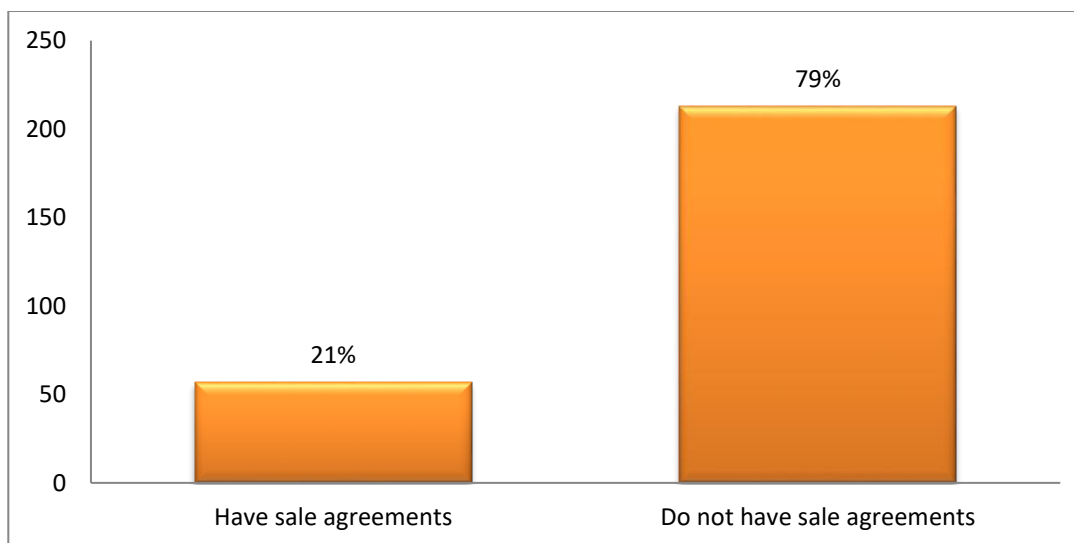
Also, most of the farmers expressed interest in trainings in agriculture, especially in crop protection. (Fig. 19)

Figure 19. Farmers' interest in training



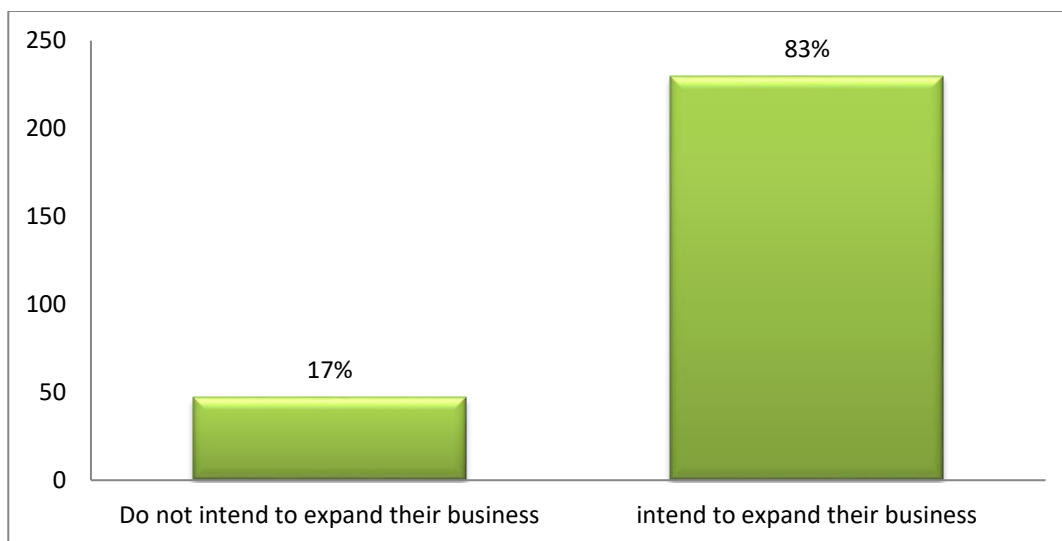
Regarding market conditions, farmers said that they do not have preliminary agreements about the sale of their products, and they also expressed interest in the possibility of direct sales. (Fig. 20)

Figure 20. Farmers who have agreements for sale of products



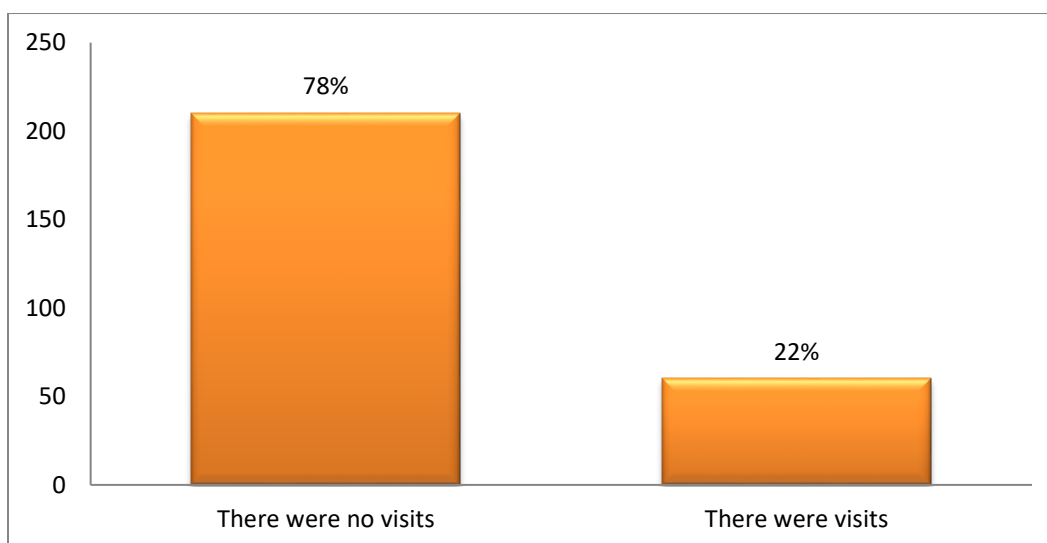
Farmers, who expressed interest in expanding their business activity, make up 83% of the total number of respondents, as the household income of most of them comes from the agricultural sector. Also, they would like to influence agricultural growth and extension in rural areas, and countrywide import reduction (as most agricultural products in the country come from import) by supplying the market with local products, which meet the criteria, and are of good quality and safe for consumption. Most of the farmers who did not show interest in expanding their business (17% of respondents) came from the municipality of Shtërpca. The reason for the lack of interest of some of these farmers was the damage caused to their farmland by the ongoing construction of the hydropower plant on the Lepenc River; whereas a few others said that they lack basic equipment, e.g. tractors, and are unable to perform their activities. (Fig. 21)

Figure 21. Farmers who intend to expand their business



With regard to visits by municipal inspectors or representatives of other institutions operating in the country, most farmers (78%) said that they do not receive such visits, or, as a few of them said, these visits are quite rare. (Fig. 22)

Figure 22. Visits to farmers by appropriate authorities



CONCLUSIONS

The results of the survey on agriculture – crop production in the regions surveyed during 2020 - have shown the following:

- The total area of farmland used by the surveyed farmers is 1622.54 / ha. Cereals take up the largest area, 946.65 / ha of arable land. The most common among vegetables are potatoes, grown in an area of 110. 22 / ha. Among fruit trees, the most common are apples, grown in an an area of 61.24 / ha.
- Farms are generally small with an average size of 2.1/ha.
- As per organic production, 43% of farmers said that they use only organic fertilizers and no pesticides, whereas 57% of them practice conventional production.
- Almost all farmers can provide products for the organic market, but they need specific training and education in this type of production, and, if possible, the organic products they produce need to be certified.
- As an agrotechnical measure, 49% of farmers apply crop circulation, whereas, as planting material, 66% use hybrid seeds, and 34% use populations.
- Among pesticide groups, Herbicides are the most common. Out of the surveyed farmers, 62% reported problems with weeds. The most common weed in cereal crops is *Avena fatua*, whereas in vegetables it is *Stellaria media*.

- Out of the total number of farmers who participated in the survey, 35% reported problems, most commonly in raspberry crops. The most common disease is *Phytophthora fragaria*, but *D.applanata* and *A.tumefaciens* are also suspected to be present. With regard to vegetables, farmers reported problems with the *Colletotrichum* spp pathogen. Nonetheless, most of the surveyed farmers (65%) reported no problems with pathogens.
- Pests represent a problem for more than half of the surveyed farmers (58%). The most common pests in vegetables are *Leptinotarsa decemlineata* and *Tuta absoluta*.
- Many farmers said that they do not use all protective measures (glasses, clothes, gloves, etc.) and that they do not know much about the specific parameters that need to be applied to minimize their exposure to factors that are harmful to humans, and cause environmental and crop pollution, as most of them practice traditional methods. Among many other factors, the lack of appropriate protective mechanisms on the part of most farmers also results in low yields.
- In the future, farmers should receive more support through subsidies and in other forms that will enable them to implement European standards, including GLOBAL GAP and IPM standards.

Annex – Gallery

Farmer from the municipality of Prishtina





Farmer from the municipality of Lipjan



Farmer from the municipality of Novobërda



Farmer from the municipality of Shtërpca



Farmer from the municipality of Gjakova

