CHALLENGES OF SMALL-SCALE FARMING IN UKRAINE

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Abstract

This paper highlights the issues of small-scale farming in Ukraine. The relevance of this scientific problem is that support of small-scale farming in Ukraine is very important for the social and economic development of the country. To develop optimal marketing and management policies for rural farmers, it is necessary to determine the challenges arise in Ukrainian small-scale farming towards its path to economic development. In order to determine important factors for small Ukrainian farmers, 120 small-scale farmers from Dnipropetrovs'k region involved in dairy, honey and vegetable production were surveyed. Among the respondents there were men and women aged 23-64, having a farm, family farm or a personal peasant household. Farmers were asked to name 3 challenges that matter, and indicate the strength of their influence (weak, average or strong). In addition, 10 personal interviews with farmers were conducted in order to find out more details about the responses in the questionnaires. The study identified two major groups of challenges for small-scale Ukrainian farmers. They are challenges in production process and marketing. The study showed that in order to manage these challenges and support the development of small-scale farming in Ukraine, the following recommendations can be made: farmers need to participate actively in the development of their own community and local production; cooperation has proved successful for dairy, vegetable, berries and cereals producers; it is necessary to keep on supporting the decentralization policy in small communities; it is necessary to ensure the protection of the small-scale farmers' rights after abolition of the moratorium on the land sale, and at the same time, to control the use of these lands; it is important to choose agricultural systems safer for land and water, than the traditional system of agriculture in Ukraine; it is important for farmers to pay attention to their managerial qualities and upgrade them through constant education and training; local community leaders need to strengthen support for rural youth in order to reduce their migration to major cities. The results of the research can be useful for small-scale farmers, rural community leaders and agricultural cooperatives' members.

Key words: cooperation, Dnipro region, farming, marketing, small-scale production.

INTRODUCTION

Currently, Ukraine is facing many challenges as a result of external and internal economic and political changes. Consequently, it is necessary to look for solutions for the economic development in the new conditions, in particular for the agro-industrial sector. The experience of such successful countries as the USA, India and China shows the importance of developing the agrarian sector in parallel with constant changes in the conditions of functioning of the economy.

In 2017, the agro-industrial sector of the Ukrainian economy brought 17% of the country's GDP. Small-scale agricultural personal households are an important element for the agrarian economy of Ukraine. In particular, they provide 75% of milk production and over 90% of Ukrainian vegetable production

(Prokopenko, 2018). In addition, rural communities of small-scale farmers are centres of small rural entrepreneurship, its support also being relevant and important for the sustainable development of the agrarian sector of the Ukrainian economy (agropolit.com, 2018).

For the last three years, small-scale farms in Ukraine have begun to undergo a transformation process in connection with changing conditions of activity of this kind of farms, in particular: changes in EU foreign policy on trade rules, changes in domestic policy concerning farms and households, significant cost rising of resources, weakening of the marketing positions etc.

Consequently, the study of the characteristics and challenges of small-scale farms in Ukraine, in particular, in the process of their current transformation, is very relevant.

LITERATURE REVIEW

The topics of small-scale farming, its management and marketing, and rural development were of interest to many economists, both practitioners and theorists. Thus, Binswanger's empirical studies have proven that there is a close relationship between the size of a farm and the efficiency of using its resources (Binswanger et al., 1993). The author demonstrated such a pattern - the larger the farm, the less efficient the use of its resources, due to the fact that farmers of small and family farms are more sensible of responsibility and put greater efforts into their work.

However, Carter's (Carter, 1994) study manifests that imbalances in the financial market can lead to low competitiveness of small-scale farms.

The works by Delgado also practically prove that private farms and family farms can be more effective than large agribusinesses by investing more time and efforts in order to achieve a high result. Even with the use of hired labour, managerial decisions and commitment to the work of the owners of the family farm additionally motivate the hired workers (Delgado, 1996, 1998).

Zbarskyi's V. scientific works are devoted to the issues of marketing, an efficiency of farms functioning and to the mechanism of state support for farms. He noted that if an economic mechanism of a farm is properly organized, then it can reach a fairly high level of development, in particular good economic relations between the farms themselves and with external structures (Zbarskyi, 2016).

L. Hnatyshyn investigated the potential of the competitiveness of small-scale farms in Ukraine and linked the notion of potential with the production factors. It was noted that the production potential of small-scale farms is the accumulation of production factors that characterize the potential opportunities for small-scale farms, as well as the availability of essential types of resources needed for production (Hnatyshyn, 2011).

According to Yu. Amelina (Amelina, 2016), the promising direction for transforming the small-scale farms in Ukraine, is obtaining an organic certificate for cultivated products. It can help to generate additional profits. The

author proposed a model for composing an optimal assortment of organic vegetables for a small farm.

The actual trend for small-scale farms in Ukraine is cooperation. Studies devoted to this phenomenon were carried out by Bezus R. and Bilotkach I. (Bezus and Bilotkach, 2017). The researchers studied the features of the new Ukrainian dairy producers' cooperatives and investigated their successful practices.

However, the current status of small-scale farming in Ukraine, its marketing and management activities and the challenges in new conditions remain studied insufficiently.

AIM OF THE STUDY

The aim of the study is to investigate the current status of small-scale farms in Ukraine and the challenges in the process of their development.

MATERIALS AND METHODS

To achieve the aim of the study authors used the survey and personal interviews, as well as statistical methods. In order to determine important factors for small Ukrainian farmers while making managerial decisions in the process of achieving of economic development, 120 small-scale farmers from Dnipropetrovs'k region involved in dairy, honey and vegetable production were surveyed. Among the respondents there were men and women aged 23-64, having a farm, family farm or a personal peasant household. Farmers were asked to name 3 challenges that matter while making managerial decisions, and indicate the strength of their influence (weak, average or strong). In addition, 10 personal interviews with farmers were conducted in order to find out more details about the responses in the questionnaires. The monographic method was used for the study of the features of the current development of small forms of management in rural communities.

RESULTS AND DISCUSSIONS

The farm type of husbandry in Ukraine is represented by various groups of agricultural producers: family farms, private peasant farms, owners of private plots and gardens, members of cooperatives. Each of the listed groups is heterogeneous in terms of land size, level of merchantability, signs of sustainability, and demographic characteristics (Marenich, 2015). As of the beginning of 2018, small-scale farming in Ukraine is represented by the following forms (Table 1).

Table 1. Forms of small-scale farming in Ukraine

Type	Farm	Family farm	Personal
			household
Form of registration	Enterprise or individual entrepreneur	Individual- entrepreneur	No state registration
Purpose of	Profit	Profit	Self-support
activity	generation	generation	and revenue
		and/or revenue increase	increasing
Max. land area	100 ha/farm	100 ha/farm	2 ha/household member

Sources: compiled by author's using (The Supreme Council of Ukraine, 2003) and (Mishenin et al., 2017)

In order to assess of small-scale farming in Ukraine, it is necessary to determine the quantity of enterprises engaged in agricultural activity in Ukraine (Table 2).

Table 2. Number and share of enterprises engaged in agricultural activity in Ukraine in 2014-2017

Indicator	2014	2015	2016	2017	2017 to 2014 in %
Total number of agricultural enterprises	46199	45379	47697	45558	98.6
Number of business (partnerships) enterprises	7750	7721	8700	6967	89.9
Number of farms	33084	32303	33682	34137	103.2
Share of business (partnerships) enterprises	16.8	17.0	18.2	15.3	-1.5 p.p.
Share of farms	71.6	71.2	70.6	74.9	3.3 p.p.

Sources: compiled by authors using (Prokopenko, 2018)

As of the beginning of 2018, there were 45,558 agricultural enterprises of all types in Ukraine. Of these, only 6,967 enterprises had a form of association, and 34,137 were farms or 74.9% of all agrarian enterprises in Ukraine. During the 2014-2017 period, the number of farms increased by 3.2%, while the number of agricultural companies decreased by 10.1%.

About 90% of all farms own land plots, 31% of them own the plot sizing 20-50 hectares, and 10% of farms own land plots measuring 10-20 hectares. In 2018, the most profitable crops to grow in the farms of Ukraine were grapes (with profitability 51.3%), sunflowers (41.2%), and various fruits and berries (36.1%).

The main landmarks of small-scale farmers in the context of sustainable development can be called:

- supporting food security of a community and country;
- provision of jobs and profitability in rural areas;
- environmental protection.

In order to determine which factors are important when making managerial decisions for small Ukrainian farmers in the process of achieving the objectives above, 120 small-scale farmers from Dnipropetrovs'k region producing milk, honey, and vegetables were surveyed. Among the respondents were men and women aged 23-64, having a farm, family farm or personal household. Farmers were asked to name three challenges that matter to them when making decisions, and indicate the strength of their influence (weak, average, strong). In addition, 10 personal interviews with farmers were conducted in order to find out more detail about the content of the responses to the questionnaire. To present the results of the survey, the farmers' responses were grouped into eight groups and distributed according to the strength of their influence assessing by the majority of respondents.

At the given time in the process of achieving the above-mentioned goals, small Ukrainian farmers experience the influence of diverse factors (Figure 1). Figure 1 presents the challenges of small-scale farmers in Ukraine in the order of increasing their influence - the stronger the impact, the smaller the diameter of the circle, which depicts the factor of influence. In addition, the picture is divided into two parts, depending on the type of factor of influence - production or marketing. Such a division allows us to clearly present the current position of small-scale farms in Ukraine.

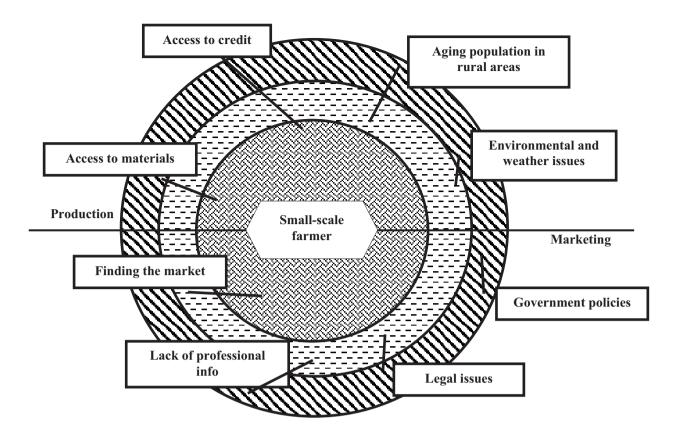


Figure 1. The challenges of small-scale farmers in Ukraine Sources: compiled by authors

The first type of constraint experienced by small Ukrainian farmers is the restriction of the production nature:

- access to materials (seeds, fertilizers, plant protection products) and equipment;
- access to credit resources;
- aging of rural population (lack of youth);
- ecological conditions of environment and weather conditions.

100% of questioned farmers indicated that access to materials for agricultural production, such as seeds, seedlings, fertilizers, and plant protection products, is very important. It was connected with a significant production restriction. Moreover, in an interview with farmers, they indicated that the quality of Ukrainian fertilizers and plant protection products was satisfactory; although they would prefer to choose seeds and seedlings from western countries if prices for them were more affordable for them.

Data from the State Statistics Service of Ukraine confirm that the share of expenditure on seeds, fertilizers, and fuel in the farm structure are high (Figure 2).

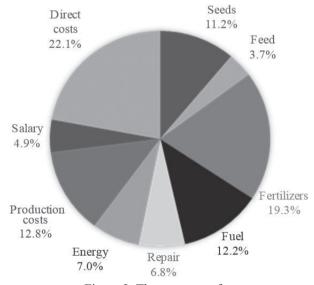


Figure 2. The structure of costs in small-scale farmers in Ukraine *Source: Prokopenko, 2018*

All farmers indicated that the business development loans are inaccessible to them due to high interest rates and negative previous experience with loan repayment. 80% of farmers in their interviews indicated that this factor is very important for them and in case of necessity, they borrow money from larger farmers in their community.

Today, the 5 largest banks in Ukraine offer specialized loans for agrarian small businesses. In addition, in 2018, there were state programs in Ukraine in which small-scale farmers could receive financial support. In particular, there is a program of financial support that reduces the loan cost for activities in the agro-industrial complex. The idea of this program is that agrarians receive funds for partial compensation of the interest rate on loans borrowed in the national currency.

Another program that can be used by small-scale farmers is a support program for developing a farm, which provides funds to farmers both on a turning and irrevocable basis. In 2018, the right to receive irrecoverable aid was granted to newly-established farms in the period of establishment, farms with separated farmsteads, as well as farms located and carrying out their economic activities in Polissya territories and in mountain settlements. Providing funds on a turning basis can be for both farmers and farms in the amount not exceeding 500 thousand UAH (approx. 16,000 euros) (minagro.gov.ua, 2018).

With in-depth interview on this issue and reminding farmers about the aforementioned programs, it was found that 40% of farmers really thought about using loans or help but did not trust the state sufficiently or did not have sufficient information about support to make a decision on its use.

An important factor in the development of a small-scale farmer is the possibility of providing his farm with the necessary labour force. The reduction and aging of the rural population is a significant limiting factor in the transformation of small-scale farmers into a lucrative family business. This was indicated by 30.8% of Ukrainian farmers in the survey.

In their personal interviews, farmers explained that such a trend towards the reduction and aging of the rural population is a consequence of state policy on villages and rural population in the past. Due to the imbalance of such policies in most of the rural areas of Ukraine, there is a high level of informal employment, the lowest wages among the economic sectors, insufficient number of rural educational institutions, low level of infrastructure etc.

The ecological condition of the environment and weather conditions have also recently started to worry small-scale farmers in Ukraine. So, if a farmer is thinking about expanding his own agricultural production, he can come to the conclusion that domestic and industrial pollution can prevent from doing it effectively. Thus, according to statistical data from the State Statistics Service, every year agrarians increase the application of mineral fertilizers to the soil. In 2010, Ukraine imported 58 kg/ha of mineral fertilizers, and in 2017 it was already 110 kg/ha. Such a load cannot positively affect the quality of agricultural land. And the areas where pesticides were used increased by one third from 2010 (Prokopenko, 2018).

The second type of factors that influence the process of transformation of small-scale farms in Ukraine are marketing factors. They are expressed in the following:

- search for sales markets;
- legal issues;
- lack of specialized information, in particular, for making an optimal managerial decision;
- understanding the intricacies of domestic policy regarding small-scale farmers.

Farmers called the need for a market search for their products the most powerful influencing factor and the most important marketing factor of influence. All 100% of the surveyed farmers noted this factor as very important and strongly influencing the changes in the farming activity. And in personal interviews, the respondents identified two main events that forced them to make some kind of changes in their marketing strategies: signing an agreement on free trade with the EU and military conflict in eastern Ukraine.

The military conflict in eastern Ukraine has led to the fact that many small-scale farmers in two major regions of the country lost their established trade links. As a result, they have begun to enter new markets for themselves, in particular in the Dnipropetrovs'k region, increasing the competition there.

When exporting, a limiting factor is the volume of export quotas for Ukrainian farmers and agricultural enterprises under the agreement with the EU. Thus, the total volume of quotas for honey according to the relevant appendix to the Agreement was 5 thousand tons, and grain only 6.3 thousand tons. Also, small quotas were exhausted almost entirely for exports of malt, garlic, and oats at the beginning of their operation.

Another problem for Ukrainian farmers when exporting to the EU is competition with small European producers. An example is the use of quotas for barley which is one of the most promising on the EU market - less than 10%. The high yield of barley in France has changed the plans of Ukrainian exporters since local products were cheaper than Ukrainian ones. As a result, Ukrainian barley was successfully exported to third country markets, but supplies to the EU were small.

In recent years, Ukrainian honey has become very popular in the European market. According to the World Exports portal, Ukraine ranks fifth in the world in terms of exports of honey, yielding to China, Argentina, New Zealand and Germany (Workman, 2018). The potential prospect for developing the small-scale farmers today is entering the EU markets with products that have significantly higher value added. If earlier Ukrainian entrepreneurs supplied honey to the EU in 200-

to 1.5 kg with Ukrainian branding. Another promising direction of development is the receipt of organic products certificates. The transition to organic production standards, for example, the return to wooden beehives, does not require additional costs but increases the cost of production by 10-15% (Litvin, 2016).

liter barrels as raw materials, they are now

ready to sell it in their own packaging of 15 g

In addition to the production agricultural activities, such activity as agritourism is gaining popularity.

Despite the problems, over the past few years the export of Ukrainian products to the EU, including that from small-scale farmers, has made a huge quantitative jerk.

Legal issues were identified by 87.5% of surveyed farmers.

First, most of them have determined that at the moment they are concerned about possible changes in the economy in connection with the emergence of such a form of management as a family farm. According to the Law of Ukraine "On Amendments to the Law of Ukraine On Farmership" concerning the promotion of the establishment and operation of family farms, a farm, registered as a legal entity, has the status of a family farm, provided that in its business activity the work of members of such a household is used, and they are exclusively members of one family.

In connection with the mentioned update of the legislation, the following difficulties are encountered by farmers:

- due to the need to register such an entity;
- if necessary, enter into an agreement between family members in such a household;
- when choosing the first or second scenario for one's own farm.

The information of the local registrar is not always exhaustive for understanding the situation in general; Internet resources do not give a complete understanding of the situation, either. 40% of farmers in the interview indicated that obtaining professional legal advice for them is problematic because of the lack or inaccessibility of the price or distance of professional legal services of the proper quality.

Secondly, 20% of farmers in the interview indicated that they were not in a position to register their household in any way due to the lack of documents for the house, animals or land. In addition, it was noted that about 40% of small-scale farmers in their communities have the same problems. However, such farmers feel the need for change, as a result of which they consider two possible options: half of them sees a positive scenario - to register all property and work openly, paying taxes and contributions, while the other half - stick to negative one – to stay in the shadows as long as possible, selling their products through intermediaries.

Thirdly, all interviewed farmers indicated among the legal issues the expected problems associated with lifting the moratorium on land sales in Ukraine. The lack of clear policies and clarifications on this process leads to expectations of negative events and fears of losing their own land plots and farms.

In this case, the situation can be improved by increasing the legal content of information in rural communities.

68.5% of small-scale farmers indicated that the lack of specialized information, in particular for adopting an optimal managerial solution, is an important factor in reducing the possibilities for farmers to run their own business.

In their personal interviews, the farmers indicated a transformation actual for all of them - the transfer of a personal household to a profitable business.

This large-scale change requires the development of a large array of information on the basics of doing business, technologies for producing dairy, grain, vegetable and berry products, marketing, logistics, etc. Execution of ordinary household work and family affairs does not always allow for the search and learning of such information; in addition, the level of training acquired in rural areas does not allow assessing optimally their own needs in education and training.

For small-scale Ukrainian farmers, the transformation of their own households into a profitable business is associated with the following challenges:

- searching for information about real successful practices of other Ukrainian smallscale farmers like them:
- selecting the best practices for one's own farm:
- determining the degree of urgency of certain changes in technology or areas of implementation and training.

45% of farmers noted that the restriction to their development was the understanding by the person responsible for making decisions, the intricacies of domestic policy regarding smallscale farmers in Ukraine. In particular, due to the decentralization policy, different communities have different support packages for small-scale farmers, which make it difficult for each member of these communities to provide information. It was also noted that there is a need to strengthen the information provision of communities with small-scale farmers regarding changes in taxation and material support. Consequently, for small-scale Ukrainian farmers, the transformation of their own economy is a very relevant and important issue that requires effort and the use of new

CONCLUSIONS

knowledge and instruments.

Given the theoretical and practical part of the study, the following conclusions can be drawn. Small-scale farms are an equal form of entrepreneurial activity in the field of agribusiness. The most urgent challenges for developing the small-scale farms in Ukraine are the following: problems with access to materials and technology; problems with access

to credit resources; aging of rural population (lack of youth); ecological condition of the environment and weather conditions; search for markets; legal issues; lack of specialized information, particularly for making optimal managerial decisions; the intricacies of domestic policy regarding small-scale farmers. In order to level these challenges and support the development of small-scale farming in Ukraine in the concept of sustainable development, the following recommendations can be made:

- farmers need to participate more actively in the development of their own community and local production; cooperation has proved successful for milk producers, vegetables, berries, and cereals. Cooperative farmers increase their own revenues by reducing the share of intermediaries and lowering costs through discounts on wholesale purchases of fertilizers and seed products;
- it is necessary to keep on supporting the decentralization policy, in particular in small communities, so that farmers could more influence the formation of the budget and decision-making on the directions of development of the territories where their farms are located;
- it is necessary to ensure the protection of the rights of small-scale farmers in the abolition of the moratorium on the land sale, and at the same time, to control the correct use of these lands, protecting their ecological condition;
- it is important to choose such agricultural systems that are not harmful to land and water, as is the traditional system of agriculture in Ukrainian villages. Such systems can be organic or biological agriculture because of the impossibility of using harmful pesticides or other toxic substances;
- it is important for farmers to pay attention to their managerial qualities and upgrade them through constant education and training;
- local community leaders need to strengthen support for rural youth in order to reduce their migration to major cities.

The next 5-6 years, cereals, honey, vegetables, grapes, and berries will be promising areas for agribusiness and export by small-scale farms of Ukraine. In addition to the production of agricultural products, such activity as agrotourism is gaining popularity.

Targeting these recommendations can help the small-scale farms in Ukraine to meet the challenges on their way of further development.

REFERENCES

- Amelina Yu., 2016. Ekonomichnij rozvitok organichnogo sil's'kogospodars'kih pidprijemstv ovochivnitsva ta plodivnitstva [Economic development of agrarian enterprises in olericulture Candidate's thesis. and pomiculture]. Dnipro: DSAEU [in Ukrainian].
- Analiz fermers'kih ta privatnih gospodarstv Ukraini [Analysis of farms' and private households of Ukraine], 2018. agropolit.com. Retrieved from https://agropolit.com/infographics/view/30 [in Ukrainian].
- Bezus R., Bilotkach I., 2018. Development of organic farmers' cooperatives: The USA, The EU, and Ukraine, Baltic Journal, Riga, Vol.4, No.2.
- Binswanger H.P., Kinsey B., 1993. Characteristics and Performance of Resettlement Programs: A Review. World Development, 21 (9): 1477-1494.
- Carter M., 1994. Sequencing capital and land market reforms for broadly based growth. Paper No. 379, Department of Agricultural Economics, University of Wisconsin, Madison.
- Delgado C., 1996. Bringing previously disadvantaged rural people into the economic mainstream: The role of smallholder agricultural production in sub-Saharan Africa. IFPRI symposium on meeting the challenge of overcoming food insecurity in Southern Africa, June 24-25, 1996, Sandton.
- Delgado C., 1998. Sources of growth in smallholder agriculture in sub-Saharan Africa: The role of vertical integration of smallholders with processors and marketers of high value-added items. Inter-Conference Symposium of the International Association of Agricultural Economists, Badplaas, South Africa, 10-16 August 1998.
- Derzhavna pidtrimka sil's'kogo gospodarstva: derzhavni programi 2018 [State support of agriculture: state programs 2018], 2018, minagro.gov.ua. Retrieved from http://dotacii.minagro.gov.ua/ua [in Ukrainian].
- Hnatyshyn L., 2011. Competitive capacity of farms in

- the system of recovery of their productive potential, Agrarian economy: scientific journal of LNAU, vol. 4, no. 1-4.
- Litvin O., 2016. Export potential and possibilities of Ukrainian small and medium size enterprises in the European market [Eksportnij potentsial mozhlivosti malih ta serednih pidprijemstv Yevropeis'komu rinku]. problems Actual ofinternational relations. [Aktual'ni mizhnarodnih vidnosin]. Vol. 127, No. 2.
- Marenich T., Borisovs'kij D., 2015. Organizatsijnoekonomichni zasadi pidvischennia efektivnosti subjektiv malogo pidpriemnitstva v agrarnij sferi, [Organizational and economic principles of increasing the efficiency of small business entities in the agrarian sector], Kharkiv, Smugasta tipograf.phia, 278 p.
- Mishenin Ye., Valentinov V., Maslak O., Koblianska I., 2017. Modern transformations in small-scale agricultural commodity production in Ukraine, Marketing and management of innovations [Marketing ta menedzhment innovacij], №4, DOI: 10.21272/mmi.2017.4-32, [in Ukrainian].
- Prokopenko O. (Eds.), 2018. Dovkillia Ukraini: statistichij zbirnik 2017. [Environment of Ukraine: Statistical Yearbook 2017]. Kyiv. The State Statistics Service of Ukraine. Retrieved from https://www.ukrstat.gov.ua [in Ukrainian].
- Prokopenko O. (Eds.), 2018. Sil's'ke gospodarstvo Ukraini: Statistichnij shchorichnik 2017 [Agriculture of Ukraine: Statistical Yearbook 2017]. Kyiv. The State Statistics Service of Ukraine. Retrieved from https://www.ukrstat.gov.ua [in Ukrainian].
- The Supreme Council of Ukraine (2003). On Farm Enterprise. The Law of Ukraine. As amended by the Law No. 973-IV on June 19 [in Ukrainian]. Retrieved from https://www.zakon.rada.gov.ua
- Workman, D., 2018. Natural honey exports by country. worldexports.com. Retrieved from http://www.worldstopexports.com/natural-honey-exporters/
- Zbarskyi V., Matsibora I., Chaliy A., 2009. Agrarna ekonomika [Agrarian economics]. Kyiv: Caravel. 264.