
PRIORITY DIRECTIONS OF AGRI-INSURANCE DEVELOPMENT IN UKRAINE

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Abstract: *The article analyzes the problems and prospects of agricultural insurance in Ukraine. It is revealed that despite the positive role of insurance in stimulating agricultural production in Ukraine it is not widespread due to the low insurance culture of the management of the farms of the corporate sector of the agricultural economy. It is established that current realities require a revision of the position regarding the establishment of mutual understanding on insurance market as policyholders and insurers. Therefore, at the present stage of development of the agricultural insurance market needs to develop effective integrated program of insurance of agricultural enterprises. Sound proposals for the development of a comprehensive agricultural insurance program, allow to consider the individual needs, financial capabilities, the specificity of production and commercial activities of agricultural enterprises.*

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Formulation of the problem

Agriculture is one of priority directions of development of the economy of many countries. In Ukraine there is extremely powerful strategic link in the national economy that ensures food security of the country. It has a number of features which are not inherent in any other industry, namely, dependence on climatic and natural conditions and disasters in which agribusiness companies are constantly operating in the regime of riskiness and uncertainty. The most common method of risk minimization in agriculture and stabilize the income of agricultural enterprises is insurance. Agricultural insurance plays a key role in ensuring socio-economic security and is important for improving economic stability in General. In this regard, the formulation of operational measures to improve the work of the current system of agricultural insurance in Ukraine will contribute to the effective development of agriculture in modern conditions. Insurance for farmers is a prerequisite for receipt of funds in most countries of the world. However, the main problem in this type of insurance has a small number of really insurance companies, their financial weakness and lack of development of the branch network in the regions, which increases the cost and complicates the access of agricultural enterprises to insurance products, and the inadequacy of insurance services to the real needs of insurers for high rates.

Analysis of recent research and publications shows the low level of development of the agricultural insurance and inadequate national legislation, problems of agricultural insurance market functioning and providing agricultural commodity insurance system dedicated work of a number of national scientists: S.P. Smolenyuk, O. M. Kalashnikova, T.Y. Sousse, M. Kulbidu M. Demyanenko, A.S. Sholoyka and others. However, questions remain insufficiently studied settlement organizational and economic approaches to agricultural insurance market functioning and state support in the agricultural insurance.

The aim of the article is to examine the state of development of agricultural insurance in Ukraine and proposals for improvement of insurance coverage of agricultural products.

Results of the study. International economic processes affect not only the development of the insurance of agricultural products in Ukraine, but also for public policy in this area. However, the positive experience of other countries, moved to a different political and economic environment may not give relevant results. Therefore, the best option for this interaction is a combination of

international and domestic experience.

Today in the world there are two models of agricultural insurance "American" and "Western European", which are different levels of state involvement. For the "American" model, which is used in the US and Canada is a significant characteristic of income support to agricultural producers. "Western European" model characterized by a minimum participation of the state, which in the agricultural insurance provides control of private insurance companies by type of insurance. Typically, government bodies support the development of insurance of agricultural production for the purpose of stabilizing agricultural incomes. Both models have advantages and disadvantages, however, as the international experience in the practice of agricultural insurance more effective is the combination of these two models [1].

Currently, the main objects of insurance in agriculture include: buildings, constructions and agro – from damage or destruction by natural disasters, fire, explosion, theft, etc .; crops, perennial fruit plantation – if the number of destructive natural phenomena and fire; animals – in the event of death, destruction or forced the slaughter of sick through fire, natural disasters, lightning, explosion, etc.

Given the uncertain economic situation in the country, experts cautiously estimate the agricultural insurance market development in the coming years and provide a significant proportion harvest losses remain without insurance compensation.

Currently, agricultural insurance is not widespread because there are many problems that need prompt resolution. Weak and inadequate agricultural insurance system appears as follows:

1. Lack of effective and shortcomings in the current system of agricultural insurance legislation, availability of illicit flows in the distribution of government allocations, lack of available funds in agricultural commodity when required considerable amount of premiums;

2. Some ahrostrahovykiv workmanship, their low qualification and interest in the media budget, but not the full benefits of insurance.

Thus, it is clear that agricultural insurance system needs improvement. Consider how you can change the current situation into account experience of foreign countries.

The most advanced and effective programs globally considered agricultural insurance system in Canada, the US, Spain and India. Recently, most of the attention was paid to risk management in the agricultural sector. Development of quality insurance products and programs will ensure the stability of the financial situation of agricultural production and reduce the cost of the state budget to support the agricultural sector. For example, in Canada, a manufacturer can receive a subsidy or assistance from the state upon the occurrence of risk events only once.

Insurance should be based on these yields, climatic conditions, technological aspects, financial and management reporting. Without real and sufficient data to insurance companies is difficult to develop and offer the market effective insurance programs. Manufacturers and the government need to understand the importance of data security and assist insurance companies in the accumulation of information. For example, in Canada and Spain, all producers who receive grants are required to provide data on production volumes of various crops and their productivity. Also, insurance companies are able to monitor the insured crop at any time to assess the situation of risk in place. The basic principle of this approach is that if sufficient information experts insurance companies can better assess the risk profile of products and offer the best conditions of insurance.

Many countries are implementing the system of insurance against weather and catastrophic events, in order to move away from ad hoc payments upon the occurrence of adverse weather conditions. Such insurance is much cheaper for producers, as a small part offset by foregone income producer. For example, in the US catastrophic insurance offered only \$ 100 for all crops one culture in one administrative district. When the risk of catastrophic events all insured farmers receive payments at 50% of the average yield and 60% of the average sales price. Total insured farmers can rely on compensation 27-30% of the destroyed agricultural production, but such insurance is very cheap [2].

Also, some governments use weather indices to determine the level of risk for payments to affected farmers. For example, in Mexico in 2004, the government determines the level of drought and forage production using satellite measurements of rainfall and indexes. Then the government calculates indices and the amount of assistance to farmers, which is determined based on the degree of

influence of weather conditions. Another crop insurance program is the concept of productivity index used in the countries with the highest level of development, such as USA, Canada, Sweden [3]. According to the program estimate losses made not by individual households, and according to the average yield in the administrative area. Compensation for damages is held in equal proportion to all insured households, in the event that the average yield in the administrative district of lower average long-term level of productivity in the area. The main users of these programs is medium, small and newly created agricultural producers.

In some countries, governments give special subsidies to insurance companies to ensure equal access for different groups of agricultural producers for insurance services. International experts from the agricultural insurance believe that the most effective state support system of agricultural insurance is subsidizing various activities for insurers.

Thus, international experience of recent years shows that in most of the attempts to introduce agricultural insurance system or modify existing ones. It should be noted that in the world there are examples of ideal agricultural insurance programs, but the error rate in different countries is very different, which is proof that any program, especially our country, should be carefully planned and carefully implemented.

Today in Ukraine the dynamic process of development of the insurance industry continues, which is one of the main sectors of the financial sector. Extensive international experience has been accumulated, study and synthesis which will enable Ukrainian insurance market to reach new frontiers.

Considering the current state of the agricultural insurance market in Ukraine, it should be noted that it takes place far advanced in the world. Even given the global trend towards recession and crisis, Ukraine still remains a country with underdeveloped insurance market - agriculture in particular.

Risk insurance of agricultural production in developed countries is the most effective mechanism to ensure continuity, balance and stability of the agricultural market and one of the effective methods of compensation in this segment.

In Ukraine, the figure is characterized by low-coverage insurance field (less than 5%), although statistics confirm increased risks of loss in this segment [4].

Macroeconomic performance indicators of the domestic agricultural market indicate the following features of its development: According to 2004-2007. There is a significant growth of key indicators, due to the state support farmers through input subsidies for insurance premiums; of 2009 marked a sharp decline indicators, due to the abolition of subsidies; in the next five years the market is adapting to work in difficult conditions; since 2013 market indicators are descending in nature because of the deteriorating overall economic situation in the country and the world. Significant reduction of 2014 the volume of insurance premiums to insure agricultural risks due to the depreciation of the currency, which caused many farmers refuse to conclude insurance contracts. The reduction of the area of the insured for the same period can be explained by political and economic situation in the country. Thus, the annexation of the territory of Ukraine provoked a loss of opportunities for the development of agricultural insurance, because the reduced area of Donetsk, Lugansk regions and the Crimea (Table 1).

Table 1. Dynamics of the main indicators of crop insurance in Ukraine for 2004-2015 years*

Years	Number of contracts	Insured area, thous. ha	Total premiums mln. UAH
2005	910	390	13
2006	1330	670	29
2007	4397	2360	117
2008	1637	1171	155
2009	1980	510	42
2010	1217	553	72
2011	2710	786	136

2012	1936	727	130
2013	1722	869	135
2014	1392	732	73
2015	1062	689	78

**Source: compiled by the author based [5].*

In the territorial division by the number of contracts signed in 2015 to insure crops largest share Vinnitsa region (130 contracts), then – Dnipropetrovsk (101), Poltava (86). In terms of insured areas hold leadership Khmelnytsky region (129 thousand ha or 18,7% of total), Vinnitsa (63,4 thousand. Ha or 9,2%) and Kharkiv (61,1 thousand ha, 8,9%). In terms of premiums collected occupy the largest share, Khmelnytsky region (11,8 mln. UAH., Or 15,2% of total), Dnipropetrovsk (11,4 mln. UAH., Or 14,6%) and Vinnitsa (9 mln. USD., or 11,6%). Fee championship has Khmelnytsky region, which accounts for 70%, followed Zhytomyr region – 8%, and in third place Vinnytsia region – 7,9% of all payments.

Agricultural insurance market research shows a small number of sellers of these services in Ukraine. Active participants of the Ukrainian market of agricultural insurance in 2014 was only 16 insurance companies that have licenses for insurance of crops [6]. Among the 12 insurers in Ukraine in 2015 can distinguish four most active in the segment of agricultural insurance PJSC "PZU Ukraine", JSC "Finist", JSC "AXA-Ukraine", JSC "INGO Ukraine". With the participation of insurance companies in the performance indicators of the domestic market share is the largest agri-JSC "PZU Ukraine" – 28,1%, followed by PJSC "Finist" – 20,9%, in third place PJSC "AXA-Ukraine" – 16,0% [5].

The largest share in terms of area and the insured income insurance premiums insurers take such PJSC "INGO Ukraine" – 29,1% and 17%; JSC "PZU Ukraine" – 20,1% and 20,9%; JSC "Finist" – 14,6% and 27,8%; JSC "Tecom" – 9,8% and 5,8%.

The proportion of insurance claims dominated by insurance companies JSC "INGO Ukraine" and "Tecom" 44,5% and 38,7% respectively. However, these insurers largest loss rate, indicating a high level of benefits and thus fulfill their obligations to policyholders.

The number of insurance contracts and the percentage of the insured area in 2015 dominate winter wheat 41,9% and 58,1% respectively. In 2015, significant payments were made under insurance contracts winter wheat total loss for the period of wintering – 75,1%. After assessment of the level payments for insurance culture in 2015, the most unprofitable Culture – winter rye.

The high level of payments for 2015 accounted for crops: winter rye (65,4%); corn (20,3%); winter wheat (15,4%). Among the list of programs offered insurance to protect crops dominated by "total loss for the period of overwintering" (93,9% of total premium income). Risk is in much smaller proportion – only 7% of all contracts.

Today, farmers use a limited number of risk insurance coverage program and a small range of services. There is no full crop insurance spring and winter crops in the spring and summer. Almost no agreements concluded in crop insurance for the entire growing cycle. This situation demonstrates the high value of these products and the desire of farmers to reduce the price of the security. Overall size of the insurance rate is an important indicator for the insurer in deciding whether a contract of insurance of crops. The average annual insurance premium rate for the last 5 years reduced (2011 – 3,74%, 2013 – 3,1% 2015 – 2,0%), "due to a contract of insurance with an unconditional franchise at 50% which provides for compensation only catastrophic losses". In addition, half of all premiums collected from market consist of insurance premiums related to finance agricultural programs – 51,2% of the total [6]. Reduces the tariff rate and the use of farmers in some cases formal insurance, such as a loan.

During 2016 the market Ukraine Agri-Insurance significant changes have taken place, yet remains small number of sellers of these services. The most active participants of the Ukrainian market of agricultural insurance in 2016 was 3 insurance companies: JSC "INGO Ukraine", PJSC "Universal" and JSC "PZU Ukraine". With the participation of insurance companies in terms of domestic market agri-business in 2016 takes the largest share of JSC "INGO Ukraine" – 36,2% [5].

The largest share in terms of area and insured insurance premium revenues in 2016 took the following insurers: PJSC "INGO Ukraine" – 41,6% and 30,5%; JSC "Aska" – 22,7% and 16,2%; PJSC "Universalna" – 20,7% and 33,5% (Table 2).

Table 2. The share of insurance premiums and insurance companies insured Square Ukraine*

Company Name	Percentage of insured areas, %	Percentage of insurance premiums, %
Ingo Ukraine	41,6	30,5
Aska	22,7	16,2
Universalna	20,7	33,5
PZU Ukraine	5,1	6,0
AXA - Ukraine	4,6	6,0
Zdorovo	2,7	4,1

**Source: compiled by the author based [5].*

The number of insurance contracts and the percentage of insured areas in 2016 as well as last year's winter wheat predominates 77,7% and 91,9% respectively. In 2016 most payments were made under insurance contracts total loss – 91,7%. As for insurance related state programs, it should be noted, 63% of collected premiums from the market, up from premiums of insurance-related program funding to farmers through the Agrarian Fund.

The analysis of the current state of agricultural insurance market in Ukraine demonstrates its slowdown, due to the following problems: the volume and frequency of occurrence of possible losses and the need for proper diversification; imperfect legal system of agricultural insurance market regulation and failure in full force certain regulations (government subsidies); distrust farms vesting insurance companies; artificially lowering the price of insurance coverage for activation of contracting insurance understatement activity survey companies regulated by the lack of a review in accordance with international standards.

Today, insurance companies are not always interested in making agricultural risk insurance through the huge amount of potential objects of cumulativeness and ineffective system of reinsurance protection. Proof of this is the presence of insurance companies in the market that are licensed to conduct agricultural insurance, but do not show activity (JSC "Agropolis", "Ukrainian Insurance House", "Finist", etc.). And accordingly still active insurers who refuse to accept in recent years, agricultural risks insurance [7].

Despite the positive role of agricultural insurance to stimulate agricultural production in Ukraine it is not widespread because of low insurance culture of corporate facilities management agricultural economics.

However, current realities require viewing position on mutual understanding in the market of agricultural insurance as the insured, insurers will be reflected in the formation of new insurance products.

Agro-insurance schemes – a comprehensive crop insurance.

The main goal – a partial or full compensation for crop losses that occurred as a result of the occurrence of adverse natural or man-made phenomena that is only possible on the basis of a comprehensive program of agricultural insurance.

It is the most important and economically viable in terms of the completeness, quality and timeliness protect their property and property interests. Comprehensive insurance product connects the risks arising from the bank credit, logistics, marketing and production of agricultural enterprises, and most controls them. In turn, this reduces the total cost of business insurance and general financial adjustment mechanism synchronizes agricultural production. This convergence of financial institutions well developed in Western countries and should enhance the effectiveness of state support insurance [9–11].

From our point of view, to develop an effective comprehensive insurance program for farms is only possible joint participation of the insurer and the insurance company. However, it is necessary to pass the following steps to ensure insurance protection: analysis of production activities; Vulnerability; determine the most probable threats; development of complex insurance programs;

integration of complex insurance programs into existing enterprise management system for agricultural risk management; preparation of proposals for the necessary preventive measures to reduce the probability of the insured event and the amount of possible damage; operational support in the implementation of a comprehensive insurance program.

Such technology is developing a comprehensive insurance program will take into account individual needs and financial capabilities, specific production and commercial activities of agricultural enterprises [12].

Here are two possible comprehensive insurance programs farms that grow cereals and legumes:

1. The insurance company can offer the widest range of insurance, which account for almost all the major risks of agricultural enterprises, and in the process of harmonization of the volume coverage based on its wish to exclude the types of insurance that would be redundant.

2. Offering programs created on the basis of the module when the insurer adds to the core product modules that are most important to the agricultural enterprise. Some insurance companies have focused on crop insurance, others - on different types of enterprises liable to third parties by offering relevant discounts. Another of the companies are based on comprehensive programs obligatory insurance, for example, compulsory motor insurance, adding them to the other.

The proposed comprehensive insurance program is designed in a modular fashion. Analysis of the production model of agricultural enterprise can provide basic business processes that could get insurance coverage: crop production; maintenance of agricultural machinery and technological equipment; storage and transportation of agricultural products.

Critical in economic activity of agricultural producers has completeness and timeliness of payments to creditors, characterized solvency of the whole enterprise. The general state of agriculture, despite the positive dynamics of the last three years, evidence of massive defaults on the part of agricultural producers. In this regard, the actual importance of insurance failure to fulfill its obligations to creditors. Although the insurer in this situation supports the lender, the most important direction of economic activity receives reliable insurance protection, which greatly contributes to the prevention of bankruptcy [13, 14].

Thus, the main module in complex insurance programs farms, in our opinion, show that a study should be crop insurance, a period in which contracts reflected in Figure 1.

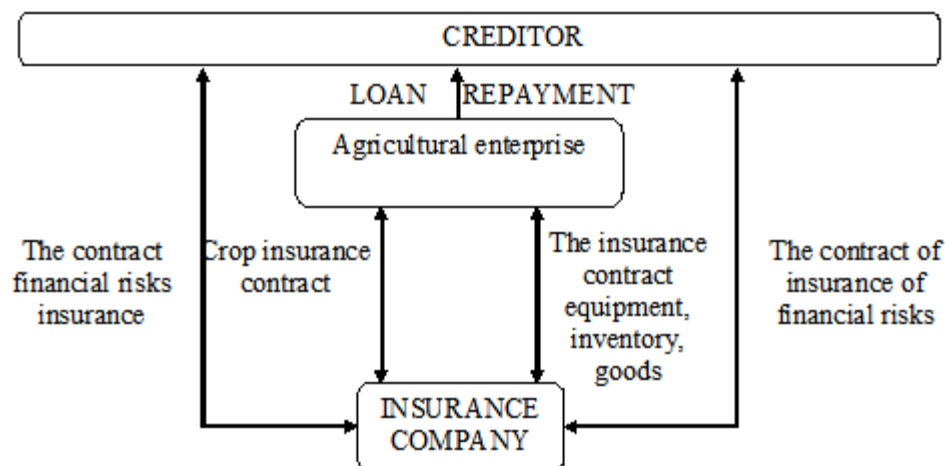


Figure 2. Scheme of complex insurance of agricultural enterprises*

**Source: compiled by the authors.*

Thus, the agricultural company receives a loan mechanization that are essential for spring field work. Insurance Company, having a modular insurance product, preparing both a company-vendor equipment, commercial and Agriculture Organization proposal for comprehensive risk insurance, which provides attractive premium payments.

The experience of many companies that implement comprehensive insurance programs in

agriculture, shows significant reduction in insurance rates - an average of 25%. Such programs are cost-effective as the insured and the insurance company, since the overall risk assessment and registration of all documents while decreasing costs of doing business insurer [18].

Thus, the company supplying agricultural machinery insures lower price risks of default by their counterparty - agricultural enterprise [19]. In turn, it is advantageous if:

- insure crops as a possible crop failure could lead to loss of production activities, which ultimately affect the performance of obligations to pay loans acquired agricultural machinery;

- acquire insurance for agricultural machinery, which bought on credit;

- organize voseny insurance stocks of products in stock (elevator) because safe storage to prevent damage and in addition, provides additional income in those periods the sale of products on the market that depend on favorable pricing conditions. We believe that only this approach can expect maximum effect of an integrated approach to risk management of agricultural production [20–22].

Currently, there is no insurance product that would, above all, compensate farms possible losses from changes in prices put them material resources, as well as the fall in prices of agricultural products. In this regard, the development of new insurance products and comprehensive agricultural insurance program is the most promising area of improving the whole system of state support of insurance in agriculture.

Agricultural producers today are willing to use the services of insurance not only natural but also economic risks associated with price fluctuations primarily on resources and finished products. However, manufacturers have been difficult to determine the reasonable cost of such insurance product in the current economic conditions [15].

In addition, there is a need to improve and standardize certain procedures, including inspection of crops and loss adjustment upon the occurrence of insurance claims and optimize the conditions of payment of insurance premiums, particularly by providing opportunities to pay insurance premiums in several installments.

Conclusions. The results of the study can reach the following conclusions. During the study period (2004-2016 years). All indicators characterizing the activities of agricultural insurance markets tend to slow but reducing: the number of concluded contracts amounts insured areas and collected insurance premiums in real terms. As of February 2016 only a fifth of all insurers that are licensed for this type of insurance policies are actively selling agricultural insurance. The range of insurance services in this segment narrowed dominates winter insurance total loss, there is no full insurance in spring and summer, hardly used crop insurance for the entire growing cycle. The average insurance premium rate shows a downward trend, particularly because the use insurance products that cover a small range of unlikely risks. None insurance program guaranteeing investors, creditors, lessors. However, agricultural insurance market has potential for further development. Necessary changes have created conditions for its effective functioning. The main areas of agricultural insurance reform should include: introduction of new insurance programs guarantee reinsurance protection; accelerated development activities of insurance protection and investment lending. Also, agricultural insurance market requires systematic effort by the government to its development, including improving the regulation of existing legislation and mechanisms for implementation and provide a system of state support of this sector.

REFERENCES

1. Tarelnyk, N. (2013), "Foreign experience of insurance risks in agriculture", *Efektivna ekonomika*, no. 6 (<http://www.economy.nayka.com.ua/?op=1&z=2096>)
2. Malik, M., Gudz, G. (2015), "Organization of insurance protection in the agricultural business - international experience", *Bulletin of Taras Shevchenko National University of Kyiv. Economics*, no. 8 (173). pp. 19-25.
3. Aleksandrova, M. (2011), "Zakordonnyj dosvid formuvannya ta rozvytku system straxuvannya silskogospodarskyx kultur", *Mizhnarodnyj zbirnyk naukovyx pratz*, no. 2 (20). pp. 26-28.
4. (2016), In Ukraine, a draft Concept for the Development of Agricultural Insurance *Problemy ekonomiky*, no. 3 (<http://forinsurer.com/news/14/06/23/31086>)

5. Yakubovych, Market agri-Ukraine focus on 2014-2016 years. The project "Development of agricultural sector financing in Europe and Central Asia" (<http://forinsurer.com/files/file00564.pdf>)
6. Tatarina, T. (2016), "Trends in the market of agricultural insurance in Ukraine", *Problemy ekonomiky*, no. 3. pp. 89-94.
7. Shynkarenko, Y. (2014), "Ukraine Agri-Insurance Market in 2013", *Straxova sprava*, no. 2 (54). pp. 16-18.
8. Barnovsky, O. (2004), "The development of insurance business in Ukraine", *Finansy Ukrayiny*, no. 8, pp. 85-87.
9. Krestyannikova, V. (2008), "The specificity of agricultural insurance in Ukraine", *Ekonomichni nauky*, no. 12, pp. 8-12.
10. Gutko, L. (2009), "Experience state support for agricultural risk insurance", *Ekonomika APK*, no. 10, pp. 147-152.
11. Furman, V. (2006), "Features of formation insurance markets in transition", *Ekonomist*, no. 8, pp. 28-34.
12. Filonyuk, O. (2009), "Overview of the global reinsurance market", *Straxova sprava*, no. 2 (34). pp. 30-43.
13. Prokppchuk, O., Ylanych, U., Bechko, V. (2014), "Features of insurance of agricultural risks in the world", *Actual problems of economics*, no. 3, pp. 46-53.
14. Bulgakova, S., Vasylenko, A., Vasylenko, L. etc. (2007), *Straxovyj rynek Ukrayiny: stan ta perspektyvy rozvytku* [The insurance market in Ukraine: Status and Prospects], monograph, NTEU, Kyiv, Ukraine, 460 p.
15. Furman, V. (2005), *Straxuvannya: teoretychni zasady ta strategiya rozvytku* [Insurance: theoretical principles and strategy development], monograph, KNTEU, Kyiv, Ukraine, 296 p.
16. Shratovskiy, G. (2006), *Straxovyj biznes: upravlinnya rozvytkom* [Insurance business: Development Management], monograph, KNTEU, Kyiv, Ukraine, 254 p.
17. Mynkina, G. (2010), "Insurance risk management as part of agricultural enterprises", *Finansovyj rynek*, no. 3, pp. 4-11.
18. Mnyx, M. (2004), *Straxuvannya yak mexanizm nadannya garantij pidpryyemnyczkoyi diyalnosti ta socialnogo zaxystu naseleण्या* [Insurance as a mechanism to guarantee business and social protection], *Znannya Ukrayiny*, Kyiv, Ukraine, p. 360.
19. Bondarchuk, M., Kondrat, I. (2014), "Peculiarities of Agricultural Insurance Development in Ukraine based on the Principles of Public Private Partnership", *Naykovyi visnyk NLTU*, no. 24(1), pp. 182-189.
20. Gudz, O. (2006), "Problems of agricultural insurance in Ukraine and priorities of agricultural insurance", *Agroinkom*, no. 11, pp. 92-95.
21. Rybtsova, N. (2014) "The current state and prospects of current agricultural insurance system in Ukraine", *Zbirnyk naykovykh prats TDAU*, no. 4(28), pp. 237-240.
22. Klapkiv, M. (2010), *Straxuvannya finansovykh ryzykiv* [Insurance of financial risks], monograph, Ekonomichna dumka, Kart-bash, Ternopil, Ukraine, 570 p.

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