

Ensuring the reproduction of the material and technical basis of agriculture

Heorhiy Cherevko

*Lviv National Agrarian University, Department of Economics,
Str. Vladimir the Great, 1, Dublany, Ukraine.*

*Zheshov University, Department of Macroeconomics and International Relations,
Str. Cviklinskiej, 2, Zheshov, Poland, E-mail: gcherevko@ukr.net*

Received July 10.2017: accepted July 31.2017

Abstract. In this article the results of the generalization of the essence of the process of reproduction of material and technical base and material and technical resources in agriculture, assessment of their condition and use, studying the level of organization of the system for providing these resources of agricultural producers, and substantiating ways to improve it, are highlighted. In agriculture ensuring of the overall reproduction process depends crucially on ensuring the effective implementation of a qualitative reproduction of its material and technical base.

At present, the level of agricultural supply of Ukraine by material and technical resources, their structure and level of efficiency of use and the system of their reproduction leave much to be desired.

The main factors of unsatisfactory state of the material and technical base of agriculture and its reproduction in Ukraine are: low investment attractiveness of agricultural enterprises; the absence of a state technical policy and a well-established system of material and technical support in the country; lack of financing of scientific research in the field of production of machinery and equipment and their use in agriculture; low-quality storage of agricultural machinery; lack of training system for working on complex agricultural machinery and its maintenance; difficult financial and economic situation of domestic factories producing agricultural machinery and its low quality.

The main directions of solving the problem of expanded reproduction of the material and technical base of agricultural enterprises are the objective regulation of the parity of prices for agricultural and industrial products, the change of depreciation policy in order to increase its importance for accelerating the modernization of technical and technological processes, reforming the domestic agricultural sector of the economy, state assistance development of domestic agricultural machine-building and tractor construction in cooperation with foreign enterprises, creation of a system of repair and maintenance services and the proper infrastructure of the market of agricultural machinery and training system for working with agricultural machinery.

A real step in this direction could be the decision to implement budget allocations for the technical re-equipment of Ukrainian agricultural producers and the development of infrastructure of the agricultural

machinery market at the rate of at least one percent of the amount of the expenditure part of the state budget. It is also worth raising of funds for research in the field of development and improvement of agricultural machinery, equipment and tractors in order to increase their competitiveness.

Key words: Ukraine, agriculture, material and technical base, material and technical resources, reproduction system.

INTRODUCTION

To increase the efficiency of agricultural production is possible only on the basis of the functioning of a highly developed material and technical base and its updating, ie modernization, technical re-equipment of farms, creation of a complex of machines for mechanization and automation of agricultural production. In market conditions, the value of the material and technical base of agriculture is gaining a significant role, which is directly related to its economic essence. In the three-tiered complex of factors of production - land, capital, labor - the material-technical base plays an equal magnitude with other constituent roles.

This role is especially important today, in an era of complex technologies and scientific and technological progress. The current stage of further formation of the material and technical base of agriculture in Ukraine is associated with the emergence of new organizational and legal forms of management of agricultural producers and new organizational and legal forms of their logistical support. Certain changes have taken place in the field of material and technical resources production. New channels of supply of logistical resources from abroad appeared. Such new phenomena require a new approach to scientific substantiation of the most appropriate ways of forming the material and technical base of agriculture, which has a wide field for relevant scientific research in this field.

And since the basis of the material and technical base of agriculture are material and technical resources, the problem is to solve the problem of its effective reproduction on the basis of organizing the system of provision of these resources of agricultural producers.

Therefore, the purpose of this article is to highlight the results of the generalization of the essence of the process of reproduction of material and technical resources and material and technical resources in agriculture, assessment of their condition and use, studying the level of organization of the system of provision of these resources of agricultural producers and justifying ways to improve it.

THE ANALYSIS OF RECENT RESEARCHES AND PUBLICATIONS

The results of studies on the formation of material and technical base and the effective use of material and technical resources of agriculture are set out in the works of many scholars, in particular, such as: Ya.K. Belousko [5], O.V. Zakharchuk [31], V.V. Ivanishin [11], Yu.O. Lupenko [14], M.M. Mogilov [21], G.M. Pidlisetskii [23,25], L.Satir [27] and a number of others. So, according to H.M. Pidlisetskogo "at the present stage of development of society, agricultural production can not work effectively without an advanced material and technical base capable of providing the appropriate technological level. For any form of ownership an important factor of rational management, property relations, property privatization is the definition of the appropriate cost of means of production. The cost of means of production, which does not correspond to the current level of prices, leads to a decrease in the cost of production, a false idea of profitability, complicates the processes of reproduction of material and technical base "[24, p. 5]. V. V. Ivanishin developed the notion of material and technical resources of agriculture as the most important factor ensuring the efficiency of agricultural production and the competitiveness of domestic agricultural producers in the conditions of globalization of the economy and the growing tendencies of competition in the agro-food market [11]. In the textbooks on agricultural economics, as a rule, the material and technical base of this industry is considered as "a set of tools and objects of labor used in agricultural production. It includes the material elements of the productive forces of the industry and creates the appropriate material conditions for the production of agricultural products [17]. That is, there are practically no contradictions in the understanding of the material and technical base as a set of material and technical resources, however, in our opinion. The notion of material and technical resources should be distinguished from the concept of material and technical resources as its constituent elements, since the material and technical base should be understood as a system of these resources, the functioning of which in the process of production is logically combined with the technology of the implementation of this process. In the absence or lack of any of these elements, the synergistic effect of the functioning of the material and technical base as an integral system disappears. L. Satyr in his research substantiated the theoretical and methodological principles of reproduction of material and technical resources in agriculture, the methodological principles of ensuring their reproduction and directions of its ensuring and its organizational and economic factors [26].

However, the level of provision of Ukrainian agriculture in terms of material resources, their structure and the level of efficiency of use now leave much to be desired, which, accordingly, creates a broad field for the continuation of scientific research aimed at finding possible ways to solve the problem of rational material and technical base formation and increase the efficiency of use its elements and its system as a whole on the basis of optimization of its reproduction.

OBJECTIVES

The purpose of this article is to present some general results of the investigation of the essence of the material and technical base and material and technical resources in agriculture and the process of their reproduction in accordance with the revealed and systematic features of this industry in comparison with others, an assessment of their state and use, studying the level of organization of the system for provision by these resources of agricultural producers in various sectors of the industry and justifying ways to improve it and increase efficiency.

MATERIALS AND METHODS OF THE RESEARCH

The research is held on the basis of Ukraine's agricultural produce materials. It is used the official data of state bodies of statistics and governmental administration as well as some Ministries. The main materials for writing were the data of the State Statistical Service of Ukraine and publications of scientists, devoted to a similar problem investigation. In the course of research the following methods were used: comparative analysis, graphics, synthesis, induction and deduction as well as systematic-analytic-comparative, method of generalization, method of economical diagnostics, economical-statistical and other. The most common method in studies is the application of monographic method that allowed a thorough and comprehensive processing of available scientific literature and the reported data of agricultural enterprises and statistical and accounting structures. The unity of historical and logical methods as well as abstract logical method of comparative analysis contributes the goal of carrying out this scientific economic research. In addition, a set of economic and statistical (common and specific) methods of scientific inquiry has been also used to enable the appropriate process and analyze extensive factual information concerning the study of the problem. The methods of expert evaluations, diagnostic system, structural and logical analysis were applied to study the processes and phenomena that influence the formation of modern state of agrarian economy material-technical base and material-technical resources and efficiency of its use in the process of productive activity. In addition, certain scientific approaches have been applied in the research process, in particular: structural, system, target, process. parametric, complex, normative, functional, which allowed to investigate the problem in a complex and organic way. This was also facilitated by the study used in

the course of the study of its phases and the logical sequence of the implementation of these stages: theoretical studies, the assessment of the existing state of the phenomenon, the identification of factors influencing its dynamics and the rationale for a possible perspective of this dynamics. In this article the author sufficiently uses his own observations, analysis and assessment of certain state decisions on further development of agriculture and its material-technical base in Ukraine. The research results are presented descriptively with the purpose of place economy.

THE MAIN RESULTS OF THE RESEARCH

Economic theory over its period of existence has advanced much ahead and has become one of the most powerful factors in the effective development of a practical economy. And during this period, the attention of scientists, among other important problems, intensively attracted the problem of social reproduction. At the same time, theoretical and economic approaches to understanding the concept of reproduction can be found in Xenophon [12], Aristotle [3], William Petty [22], Mark Blaug [6], John Stuart Mill [20], Karl Marx [15], François Kenne [7] and many others. Actually, G.St.Mill was the first to consider reproduction as a system that includes clear elements - production, distribution, exchange and consumption, which follow precisely this sequence in the overall reproduction process [20]. K. Marx substantiated the concept of simple and expanded reproduction, which has the right to dream today, the essence of which is that "whatever form of the social process of production, it should in any case be continuous. Just as a society can not stop consuming it, it can not stop producing it. Therefore, the process of social production, considered in constant communication and in the continuous flow of its renewal, is at the same time a process of reproduction ... Production conditions are simultaneously the conditions of reproduction "[15, p.570-571]. The merit of the scientists of the modern period of the development of economic theory is the division of the extended form of reproduction into types: extensive, intensive and mixed [18] and the outline of the specificity of reproduction in agriculture, which consists in the expediency of an optimal combination of intensive and extensive factors, "because it is necessary to increase not only quantitative, but also qualitative indicators. For example, increasing the productivity of crops and animal productivity can only be ensured with the use of modern technology and technology, the implementation of the achievements of elite seed production and breeding livestock and pedigree livestock "[26, p.20]. That is, in agriculture, ensuring the overall reproduction process depends crucially on ensuring the effective implementation of a qualitative reproduction of its material and technical base. Compliance with this dependence meets the requirements of the need to transform the domestic economy in the direction that is conditioned by the conditions of the post-industrial stage of society's development [13].

Absolutely distinctive feature of the material and technical base in agriculture is the presence in its composition of living organisms - plants and animals, the

development of which occurs under the influence of biological laws - the laws of nature, therefore, the significant influence on the formation and use of material and technical base in agriculture have natural factors which cause the seasonal nature of the use of material and technical resources in agriculture. The builder of material and technical base is the means of production, which are created directly in agriculture (productive cattle, feed, seeds, organic fertilizers). Even with the high level of equipment of agricultural enterprises by means of industrial production, but the lack or low quality of production means reproduced in agriculture, the productivity of plant and animal husbandry will be reduced. Therefore, the creation of the material and technical base necessary for the widespread introduction of intensive technologies in agrarian enterprises requires not only further development of industry, but also introduction into production of achievements of agrobiological science. With the strengthening and development of the material and technical base of agrarian enterprises, the production of agricultural products is increasing [16].

Absolutely distinctive feature of the material and technical base in agriculture is the presence in its composition of living organisms - plants and animals, the development of which occurs under the influence of biological laws - the laws of nature, therefore, the significant influence on the formation and use of material and technical base in agriculture have natural factors which cause the seasonal nature of the use of material and technical resources in agriculture. The builder of material and technical base is the means of production, which are created directly in agriculture (productive cattle, feed, seeds, organic fertilizers). Even with the high level of equipment of agricultural enterprises by means of industrial production, but the lack or low quality of production means reproduced in agriculture, the productivity of plant and animal husbandry will be reduced. Therefore, the creation of the material and technical base necessary for the widespread introduction of intensive technologies in agrarian enterprises requires not only further development of industry, but also introduction into production of achievements of agrobiological science. With the strengthening and development of the material and technical base of agrarian enterprises, the production of agricultural products is increasing [16].

The state of the material and technical base of agriculture of Ukraine up today is clearly unsatisfactory in quantitative or qualitative terms. The technique is physically and morally obsolete. In addition, already at the time of its creation it yielded to the class, quality, and efficiency of work with the best foreign samples. The existing system of technical service in the country is reduced to a large extent (with the exception of branded service) for the sale of spare parts ... The quality of spare parts in the domestic market has become a direction for super-profitable business and trouble for agricultural producers. The lack of repair technologies, detergents, overhead benches for cold and hot running engines, and diagnostic tools have transformed the process of classical repair into a process of trivial disassembly-assembly of

technical means, which, moreover, are not sufficiently skilled and low-quality.

The problem is that modern agricultural enterprises either do not have the means, or just do not care about the quality of storage technology. These problems also add to the fact that due to the deterioration of the staffing of personnel directly operating on agricultural machines, the use and service of agricultural machinery - a large part of them as a result of the increase in unemployment as a consequence of the elimination of large agricultural enterprises was forced to withdraw altogether from the agriculture.

Such a situation in the material and technical base of agriculture, in addition to increasing land degradation, reducing their fertility, unjustified over-consumption of fuel and lubricants, in the end - the increase in agricultural prices.

Today, the park of agricultural machinery in Ukraine has more than 1 million units of machinery and equipment. The calculations made show that. that the provision of the industry by tractors is 33.3% of the regulatory requirement, the grain harvesting industry is provided with 38.7%, and forage harvesters - by 75%, mowing machines - by 66.1%, plows - by 37.2%, seed drills - by 38 , 3% [30]. According to the calculations of the scientists of the Institute of Agrarian Economics of the National Academy of Sciences of Ukraine, the regulatory requirement for the main means for the production of agricultural products for the period up to 2025 for all categories of farms is determined in the amount of 1532.7 billion UAH. While the real value bearing in view of the pre-assessment is only 523.3 billion UAH. In particular, the need for machinery and equipment is UAH 384.3 billion for 2020 and UAH 517.4 billion. - by 2025, and their actual estimated value is UAH 163.6 billion [1], ie 43% and 32%.

It is clear that the main way of solving the problem of updating the material and technical base in any sector of the economy is to invest [2]. The main problem is that the available investment volumes are not enough to provide the necessary model for reproduction of material and technical resources in agriculture as the basis of the branch material and technical base. Provision of agriculture with basic means does not meet the needs of production. Thus, in 2016, in agricultural enterprises, the actual availability of fixed assets per hectare of land in comparison with their normative need was only 24.2%, including by vehicles and equipment - by 21.6%, by vehicles - by 24%, by productive cattle - by 54.8%, by perennial plantings - by 50.5%, by buildings and structures - by 22.4% [19]. At the same time, the share of Ukrainian technology in sales fell to almost zero [29]. In 2017, the overall growth of the technology market in Ukraine is expected to be at least 20-30% compared to last year. The popularity of tractors in the segment of 150-200 centuries has become more popular now it is only growing. This is due to the fact that farms with an average area are developing, allowing themselves modern technology, but superstructures they do not need them [28].

Currently, the labor force and fundraising of agricultural lands in Ukraine per 100 hectares of land are 1.6-15.6 times lower than in the United Kingdom, Poland,

Belarus and Russia. In 2015, compared to 2010, agrarian enterprises of Ukraine experienced a decline in the availability of various types of equipment within the range of 10-20%. It is gradually compensated by the growth of power of self-propelled machinery and the productivity of trailer equipment. Thus, in 2015, the average power of the tractor engine was 94.1 kW compared to 83 kW in 2010 and 64.7 kW in 2000. At the same time, there is a tendency to increase the level of technical equipment of private peasant farms - mainly at the expense of mini tractors and motorcycles of Chinese origin. But compared with the farms of Poland, in which 1 tractor has 9.4 hectares, in the households of Ukraine - 21.2 hectares [1]

According to the official data of the State Statistics Service, the main means of production in agriculture as of January 1, 2016 were 38.6%. The level of depreciation of fixed assets in industry is 76.9%, or twice as high as in agriculture. Depreciation of fixed assets in transport and communications activities exceeds the level of deterioration in agriculture and is 51.7%. It should be taken into account that almost a year ago, the depreciation of fixed assets in the transport and communication activities amounted to almost 98%, and only after it was attributed by the State Statistics Service of Rail Transport from the transport industry to the industrial one, it decreased significantly in the latter [19].

If we take into account that the level of depreciation of fixed assets in industry at the end of 2014 amounted to 60.3%, and in the transport and communication sector - 97.9%, then there is a misconception that the state of fixed assets in agriculture is the best relative to other sectors of the economy. In the reporting and statistical information of economic indicators of agricultural activity there is a somewhat paradoxical situation regarding the state and reproduction of fixed assets in comparison with other branches. Thus, if in the beginning of 2000 the same level of wear and tendency of its change in the national economy, agriculture and industry was approximated, then according to official statistics, the level of depreciation of basic means of agriculture, hunting and forestry is significantly reduced from 2006, especially in 2009-2012. In general, in the national economy and separately in industry, there is a reverse trend.

The cost of the main productive assets of the agricultural sector by the end of 2015 is UAH 205.6 billion. and for the period under investigation there has been an annual increase of this indicator, starting from 2007 (UAH 68.2 billion), almost tripled. During this period of time, the value of the new fixed assets in force in agriculture exceeds the cost of their retirement each year. That is, we can talk about the overall positive development of the trends in the reproduction of material and technical resources of agriculture as the basis of its material and technical base.

The disproportionate development of various industries affected the share of the value of fixed assets of the agrarian sector in the capital of the national economy and in 2015, compared with 1990, it decreased by almost 14 times. The share of agricultural products in the gross domestic product declines much slower - only 30% [19].

The main directions of improving the state of the material and technical base of agriculture in Ukraine are two: either via replenishing it with the techniques of domestic production, or - imported.

The first significant contracts for the supply of a significant part of foreign technology to Ukraine are associated with the agricultural and agricultural association "Earth and People". This delivery took place in 1993, but now and now Ukrainian farmers redevelop those combines, already with a huge amount of work and repairs, but still "live" and able to work [10, p.13]. At the end of the 1990s, other large batches of grain harvesters came to Ukraine, and then the era of first dealers began. There was a concept of dealership service.

However, the formation of this class of companies was under difficult conditions. At the parallel course the industry of cheap spare parts-analogues production developed, which were produced mostly in the handmade way. In addition, the volume of imported machinery used to grow, which often worked until the first serious fragment, and then went to spare parts. There have been cases when farms have brought in for their own needs grain harvesters aged 30-35 years old, and finally finished them, they were simply taken to scrap [10, p.13].

The turning point in the situation began in the beginning of 2000, when the law on renting arable land came out, and the tenants began not only to increase the area of cultivating soils, but also to seek appropriate technical support, which led to an increase in demand for powerful high-tech equipment, which contributed to this Possibilities for the emergence and development of companies that received representative rights from world machine-building brands. However, our farmers and large farms have become increasingly demanding over the years, the range of machines and tools has grown rapidly.

Now Ukrainian agrarians are not so easy to sell anything with a foreign name. They are initially interested in the experience of farms from other areas, studying the problems typical of a particular brand of technology, the fullness of the market by spare parts. And yet - is it possible to buy a technique on credit, for most farms to buy it at once and at full cost is often unattainable luxury.

In general, the competition among dealers is shrinking and will continue to be only tougher. This is facilitated by factors such as the consolidation of agriholdings, which are becoming more demanding in technology; equalization of the price and qualitative indices of cars, which places the service and financial opportunities of the dealer in the lending of state-owned enterprises in the first place. Therefore, we will observe the growth of the struggle for the client-agrarian, trying to bring him the benefits of one or another solution.

Ukrainian factories producing agricultural machinery are in a difficult financial and economic situation. Domestic manufacturers of machinery are now low-power, their scientific and design basis is weak, competitiveness is low, cooperation of production is low [4, p.35]. And the pace of production of agricultural machinery (not to mention its quality) today does not inspire any optimism in the possibility of rapid improvement of the material and technical base of agriculture.

However, calculations show that for the state today it is more profitable to spend money on the production of agricultural machinery by domestic plants. Thus, 4-9 such machines, although with lower productivity, cost 3-7 times less than a unit of similar foreign production equipment. With practically identical technical characteristics, the Ukrainian tractor KhTZ-1631 is cheaper than the American analogue "John Deere-8120" almost 4 times. Imported machinery has a higher, compared with domestic analogues, operating costs of 1.5-2 times. Regarding reliability, research shows that in the first years of operation in households, domestic tractors have a yield of 2-3 times less refusal than, for example, American ones. But with an increase in lifespan, the refusal begins to grow rapidly [4, p.33]. Obviously, this is due to the specifics of the structure of sales of machinery, for example, in the American market: some farmers do not practically repair it, and after 3-4 years of warranty exploitation simply sells. The other part has an inclination to acquire exactly used, 4-5 times cheaper than new equipment, investing more in its maintenance and repair.

It should be borne in mind that in Ukraine conditions to form the duration of the operation of technical means on the principle of their slipping use is appropriate, as if in the presence of a large number of small producers. Such an approach can take place in a high level of organization of provision of supplies of material and technical resources and intensive coverage of the park of new equipment, as well as - raising the level of solvency of agricultural producers. This can significantly contribute to the improvement of the lending system for the purpose of reproduction of material resources.

In our conditions, far from every agricultural enterprise can afford to buy new imported machinery, and the corresponding service structures for its maintenance in sufficient quantity in Ukraine have not been created. In addition, foreign energy-consuming technology has been adapted to aggregate with domestic work machines and requires considerable space for work.

The foreign factor in solving the problem of development of domestic agricultural machinery and tractors can be used more effectively in the form of cooperation of foreign and domestic producers of technology with the expansion of the use of modern materials and high-quality element base machines. A real step towards improving the state policy in the field of material and technical support of agricultural enterprises could be the decision to implement budget allocations for the technical re-equipment of Ukrainian agricultural producers and the development of infrastructure of the agricultural machinery market at the rate of at least one percent of the amount of the expenditure part the state budget. In addition, the state should facilitate the development of processes of cooperation of enterprises for the production of agricultural machinery, which will significantly reduce its cost and modernize.

A perspective direction in solving this problem may be the creation of domestic producers of agricultural machinery dealer network for the implementation of these products with the development of a regional system for supplying its customers, which requires the cardinal

development of marketing activities of producers themselves [9, p.23-27].

CONCLUSIONS

1. Effective rational formation and use of the material and technical base of agricultural enterprises is an objective necessity and an important prerequisite for the development not only of them, but of the agrarian sector of the economy as a whole. Reformational transformations in agriculture have not yielded the expected returns, enterprises are in a difficult position, and this leads to the destruction of resource potential in the industry and the difficulties in implementing the reproduction of the material and technical resources of its enterprises with a view to their qualitative upgrade and on this basis - improving their efficiency and the production of agricultural products.
2. The low level of reproduction and renewal of the basic productive assets of agriculture in comparison with the national economy of Ukraine, including without sufficient state support, the current lack of interest of the owners themselves - all this led to a deterioration of the general state of logistics of agricultural enterprises, especially small and medium forms management. Only in 2012-2015 the cost of putting into operation of new fixed assets began to significantly exceed the cost of their retirement, and the main reason for this was the inflationary processes. The technique is worn out, physically and morally obsolete. The existing system of technical service in the country is reduced to a large extent (with the exception of branded service) to the sale of spare parts. The supply of material and technical resources to the region is far from the normative and actual needs. The fixed funds in Ukraine's agriculture in terms of 100 hectares of land are 1.6-15.6 times lower than in the UK, Poland, Belarus and Russia. This leads, in addition to increasing land degradation and reducing their fertility, to unjustified over-consumption of fuel and lubricants, and, ultimately, to agricultural prices rising.
3. The main factors of unsatisfactory state of the material and technical base of agriculture and its reproduction in Ukraine are: low investment attractiveness of agricultural enterprises; absence of state technical policy and well-established logistics system in the country; lack of financing of scientific research in the field of production of machinery and equipment and their use in agriculture; low-quality storage of agricultural machinery; lack of training system for working on complex agricultural machinery and its maintenance; difficult financial and economic situation of domestic factories producing agricultural machinery and its low quality.
4. Effective use of material resources and, on this basis, an increase in production and profit can be considered as if it provides an intensive way of enterprise development, namely: reduction of unit costs and increase of competitiveness.
5. Rationally formed logistical resources, their optimal correlation between species and groups will provide the necessary level of optimality of interconnection of production volumes with the resources of enterprises taking into account specialization, investment planning, and equalization of economic conditions of development of various types of agricultural enterprises.
6. The main directions of improving the state of the material and technical base of agriculture in Ukraine are two: either at the expense of replenishing it with the technique of domestic production, or - imported. Everyone has its advantages and disadvantages.
7. The main directions of solving the problem of expanded reproduction of the material and technical base of agricultural enterprises is the objective regulation of the parity of prices for agricultural and industrial products, the change of depreciation policy in order to increase its importance for accelerating the modernization of technical and technological processes, reforming the domestic agricultural sector of the economy, state assistance to the development of domestic agricultural machinery and tractors in cooperation with foreign support be stressed, a system repair and maintenance and proper market infrastructure and agricultural technology training system for use with agricultural equipment. It is also worth raising funds for research in the field of development and improvement of agricultural machinery, equipment and tractors in order to increase their competitiveness.
8. The basis of reproduction of the material and technical base of agriculture should be a real state technical policy and the creation of domestic agricultural machinery due to the concentration of funds in this direction, which can be obtained as a result of reorientation of financial flows in the country. The presence on the domestic market of imported machinery and dealers of its global producers is a positive phenomenon, as it increases the level of domestic producers' quality equipment and the level of competition in the market of technical means.
9. The intensification of agricultural production as a way of enterprise development is the most perceptible for enterprises and can be realized within a short period of time in the course of current operational activity, since it does not require significant financial resources to change the structure of material resources. The greatest effect in this case can be obtained as a result of innovative management approaches by the enterprise management, in particular the use of new high-yielding varieties of grain crops, modern technologies for cultivating land and plant protection products, and improving the skills of labor resources.

REFERENCES

1. Agrarian production of Ukraine needs technical and technological re-equipment. Available online at: <<http://agravery.com/en/posts/show/agrarne-virobnictvo-ukraini-potrebuie-tehniko-tehnologicnogo-pereosnasenna>> (in Ukrainian) (Accessed 3.08.2017).
2. **Alekseyev I., Khoma I. and Shpak N. 2013.** Modelling of an impact of investment maintenance on the condition of economic protectability of industrial

- enterprises. *Econtechmod* : an international quarterly journal on economics in technology, new technologies and modeling processes. - Lublin ; Rzeszow, 2013. – Vol. 2, No.2, 3-8. (in English).
3. **Aristotle, 1983.** Works: in 4 toms. Thought, T.1,550.(in Russian).
 4. **Belousko Ya.K., 2007.** Investment support of technical and technological re-equipment of agrarian production / *Economy of AIC.*, 6, 32-35 (in Ukrainian).
 5. **Bilousko Ya.K. Burylko V.O. and Halushko V.O., 2007.** Problems of Implementation of Technical Policy in the Agro-Industrial Complex. NNTs IAE, Kyiv, 216 (in Ukrainian).
 6. **Blaug M., 1994.** Economical thought in retrospect [trans. from English], Moscow, Business, 687 (in English)
 7. **Cane F., 1960.** Selected Economic Works [trans. from English], Moscow, Politizdat, 364 (in Russian)
 8. Concepts and features of the material and technical base of agrarian enterprises. Available online at: <http://pidruchniki.com/1719051236234/ekonomika/p_onyattya_osoblivosti_materialno-tehnichnoyi_bazi_pidpriyemstv> (in Ukrainian) (Accessed 3.08.2017).
 9. **Derevets I.S., 2007.** Service base of dealerships in the logistics system of the agriindustrial complex of Ukraine. *Economy of AIC*, 4, 23-27 (in Ukrainian).
 10. **Gorda O., 2012.** From the Origins to the Present. *The Ukrainian Farmer*, 1, 13-14 (in Ukrainian).
 11. **Ivanyshyn, V. V., 2011,** Organizational and economic principles of reproduction and effective use of technical potential of agrarian production., NNTs IAE, Kyiv., 350 (in Ukrainian).
 12. **Ksenophon. 1976.** Kiriopedia [trans. from. ancient Greek. V. G. Boruchovich and E. Frolov]. – Moscow, Science, 336 (in Russian).
 13. **Kuzmin O., Pyrog O. and Melnik L., 2014.** Transformation of development Model of national economies at conditions of postindustrial society. *Econtechmod*: an international quarterly journal on economics in technology, new technologies and modelling processes. – Lublin ; Rzeszow – Vol.3, No 2, 41-45. (in English).
 14. **Lupenko Yu. O. Zakharchuk O. V. Vyshnevetska, O. V. and others, 2015,** Material and technical support of agriculture in Ukraine, NNTs IAE, Kyiv, 144 (in Ukrainian).
 15. **Marx K, 1949.** Capital; in 3 toms.. Moscow, Izd-vo polit i-ry”, T.1. Book 1 .593 (in English).
 16. Material and technical base in agriculture. Available online at: <<http://5fan.ru/wievjob.php?id=80333>> (in Ukrainian) (Accessed 3.08.2017).
 17. Material and technical base of agriculture. Available online at: <http://pidruchniki.com/80390/ekonomika/materialno-tehnichna_baza_silskogo_gospodarstva>. (in Ukrainian) (Accessed 3.08.2017).
 18. **Medvedev V.A., 2004.** Reproduction and development priorities. Moscow,: ZAO "Izd-vo" *Ekonomika* ", 208 (in English).
 19. **Mikhailov M.G., 2017.** Modernization of the material and technical basis of agrarian enterprises, *Effective economy*, 8. Available online at: <<http://www.economy.nauka.com.ua/?op=1&z=5725>> (in Ukrainian) (Accessed 3.09.2017).
 20. **Mill J. St., 1980.** Fundamentals of Political Economy [trans. from English.], Moscow, Progress, 495 (in English)
 21. **Mogilova M.M., 2016.** Restoration of fixed assets of agricultural enterprises of Ukraine in conditions of institutional changes, *dis ... doc. eq Sciences - NSC "IAE" NAANU*, Kyiv, 2016.- 470 p.
 22. **Petty V., 2000,** A Treatise on Taxes and Fees / V.Pett, A.Smith. D. Ricardo. J. Keynes, M. Friedman. Classics of economic thought. Works by M.Eksmo-Pres., 79. (in Russian).
 23. **Pidlisetskyi H.M. and Mohylova M. M., 2010,** "Improvement of revaluation of fixed assets of the agrarian sector in the system of their reproduction", *Ekonomika APK*, vol. 12, pp. 41-47. (in Ukrainian).
 24. **Pidlisetskyi H.M. and others, 2001,** *Formuvannia rynkiv materialnykh resursiv APK* [Formation of the markets of material resources of the agroindustrial complex], IAE UAAN, Kyiv, Ukraine, p. 428. (in Ukrainian)
 25. **Pidlisetskyi H.M., Tovstopiat V.L. and Burylko A.V., 2008,** "Material and technical base of agrarian production: state and problems of reproduction", *Ahroinkom*, vol.5-6, pp. 34-39. (in Ukrainian).
 26. **Pun'ko B.M., 2008.** Economic and ecological reproduction: monograph for ed. B.V.Buranskyi Lviv: Scientific-Production Company "Ukrainian Technologies", 323 (in Ukrainian).
 27. **Satyr L., 2012.** Organizational-economical logistics of material-technical resources of agricultural enterprises reproduction, *Bila Tserkva*, 336 p. (in Ukrainian).
 28. The market for agricultural machinery will grow by 30%. Available online at: <<http://agravery.com/uk/posts/show/rinok-silgosptehniki-zroste-na-30>> (in Ukrainian) (Accessed 5.09.2017).
 29. Ukraine has an association of machine manufacturers. Available online at: <<http://agravery.com/uk/posts/show/v-ukraini-zavilas-asociacia-vitciznanih-masinobudivnikiv>> (in Ukrainian) (Accessed 5.09.2017).
 30. **Valigura V.I., 2017.** Organization and economic efficiency of agricultural production logistics: Master thesis, Ternopol, National economic university. Available online at: <<http://dspace.tneu.edu.ua/bitstream/316497/16540/1/Baniryba.pdf>> (in Ukrainian) (Accessed 5.09.2017).
 31. **Zakharchuk, O. V. 2014,** Problems of logistical support of agricultural enterprises of Ukraine, *Ekonomika APK*, vol. 7, 92–99. (in Ukrainian)

