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THE MAIN FEATURES OF UKRAINE'S CONTEMPORARY AGRICULTURE ON THE WAY TO EUROINTEGRATION

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The main results of Ukraine's agriculture and the whole agriindustrial complex development problems investigation in the context of this country's preparation for possible becoming a member of European Union are presented in this article. The special attention in this investigation is devoted to analysis of agrarian economy of Ukraine on the way of eurointegration, of opportunities and threats governmental regulations of agriindustrial sector of Ukraine's economy, of alternative power engineering in the context of sustainable development of rural areas, of agriculture as the possible source of raw materials for power and fuel production. The results of the research aiming at considering the fact of objective existence and development of information processes in the logistics of agribusiness enterprises as well as grounding the necessity to build different logistic formations on the basis of logistic chains in order to provide management of these enterprises with logistics also have been presented. The conditions and possibilities for development of logistic information systems and their tendencies in agribusiness enterprises have been grounded.

Key words: agriculture, eurointegration, alternative energetic, sustainable development, rural areas, logistics.

Черевко Г., Шиманська Е., Дроздяк І. Основні риси сучасного сільського господарства України на шляху до євроінтеграції

Представлено основні результати дослідження сучасних проблем сільського господарства та всього агропромислового комплексу України в контексті її підготовки до європейської інтеграції. Особлива увага в проведеному дослідженні приділена аналізу стану аграрної економіки України в передбаченні її євроінтеграції, шансів і загроз державного регулювання агропромислового сектору економіки країни, розвитку альтернативної енергетики в контексті зрівноваженого розвитку сільських регіонів, сільському господарству як можливого джерелу одержання сировини для виробництва енергії і палива. Показано теоретичні і методичні аспекти об'єктивності та місця інформаційних потоків у логістиці, сутність логістичних формувань і логістичних ланцюгів у логістичних системах. Основними серед таких формувань повинні бути логістичні інформаційні системи, завданням яких є забезпечення умов для виконання логістичних операцій з елементами відповідних потоків. Обґрунтовано умови і можливості розвитку логістичних інформаційних систем та його тенденції у підприємствах агробізнесу та проаналізовано хід реалізації цього процесу на сучасному етапі.

Ключові слова: сільське господарство, євроінтеграція, альтернативна енергетика, зрівноважений розвиток, сільські регіони, логістика.

Черевко Г., Шиманська Е., Дроздяк І. Основные черты современного сельского хозяйства Украины на пути к евроинтеграции

Представлены основные результаты исследования современных проблем сельского хозяйства и всего агропромышленного комплекса Украины в контексте её подготовки к европейской интеграции. Особое внимание в проведенном исследовании уделено анализу состояния аграрной экономики Украины в предвидении её евроинтеграции, шансов и угроз государственного регулирования агропромышленного сектора экономики страны, развитию альтернативной энергетики в контексте уравновешенного развития сельских регионов, сельскому хозяйству как

возможному источнику получения сырья для производства энергии и топлива. Показаны теоретические и методические аспекты объективности и места информационных потоков в логистике, сущность логистических формирований и логистических цепей в логистических системах. Основными среди таких формирований должны быть логистические информационные системы, главным заданием которых объективно является обеспечение условий для выполнения логистических операций с элементами соответствующих потоков. Обоснованы условия и возможности развития логистических информационных систем и его тенденции в предприятиях агробизнеса, проанализирован ход реализации этого процесса на современном этапе.

***Ключевые слова:** сельское хозяйство, евроинтеграция, альтернативная энергетика, уравновешенное развитие, сельские регионы, логистика.*

Rising of problem. On the way of Ukraine's integration into EU it is necessary to reject established primitive idea that this process is simple. Mostly, success of Ukraine's preparation to the integration into EU will depend on the development level of its agro industrial complex (AIC), because Ukraine is an agrarian country in a good sense of the word. But the big problems, arising on this way, are following: low level of agriculture enterprises functioning efficiency, ineffective governmental regulation of agrisector of economy, shortage of finance for energy and material-technical base elements purchasing, lack of logistic system in agribusiness enterprises.

Generally low efficient agriculture causes a lot of problems with sustainable development of rural areas, including unemployment, shortages in social sphere development of country side etc. The problem of state regulation of agrosector development under the new transforming circumstances and globalization influence requires new theoretical and methodological approaches, based on the objective economic laws and mechanisms of the market self-regulation [1, p. 111].

Actually in realization of named above aims of agrieconomical strategy in Ukraine an important role plays the development of resuming energy which the whole world considers the energy of the future and it is based mainly on the alternative energy sources. It stipulates the actuality in researching the problems of increasing the value of agriculture as a branch which also considerably can assist in decision the questions on power safety of the country by the direct growing of raw materials for the production of the so-called biofuel, potential of which in Ukraine is rather considerable.

Not less important role can provide creation of logistic and information system (LIS) on the way of providing the logistically oriented

management of flow processes at agribusiness enterprises, which in theory and practice of logistic activities is regarded as a sub-system of general logistic system, that provides incoming, processing, storing and delivery of information and by the same token formation, transformation, and generation of information flows necessary for making managerial decisions in order to plan, organize, control and regulate the processes of implementation the material flows movement. In order to organize and implement logistic processes in agribusiness the certain management instruments must be created to provide economic, technical, technological combination of flow processes in accordance with the main logistic concepts.

So, the situation dictates the necessity of realization of scientific researches in the direction of determination the optimal parameters of named above complex of problems solutions with the purpose of sustainable development of rural areas in Ukraine realization and Ukraine's eurointegration, what creates a wide field for a scientific search in this direction. Nowadays such way is considered to be one of the most effective and applicable for fulfilment, because really Ukraine has favourable conditions for the development of agriculture.

Analysis of the last researches and publications. Development of Ukrainian agriculture on the Ukraine's difficult way to eurointegration is very importance but today we already can see on the one hand – relatively low level of such development, and on the other hand – some concrete ways of such possibility practical realization. So there is no wonder that a lot of domestic scientists have activated their researches in this field. Among them is the sense to name A. Almashi, P. Bereziwskyj, S. Demianenko, M. Kalinchyk, I. Kyrylenko, P. Sabluk, O. Shpychak, M. Lendel, M. Malik, V. Mesel-Veseliak, V. Vlasow and others. But

existing situation in agriculture dictates the sharp necessity to continue similar investigations with the purpose of adequate ways out from that situation elaboration and realization. To a considerable extent the success of this process depends on the level of efficiency of governmental regulation of economical relations in agrarian sphere of Ukrainian economy.

The very great attention is devoted to the problems of logistics development in agricultural and agribusiness enterprises in Ukraine by such scientists as E. Adam, B. Anikin, O. Gadzynckyj, Je. Krykawskij, A. Rodnikow, Yu. Ponomariowa, N. Struk, N. Chornopyska, N. Chuchraj and others. But real level of that logistics development there is as today very low and only starting in its progress. So further researches on this way are objectively needed.

To the study of possibilities of decision the problem of the use of agricultural raw materials for the production of biofuel are devoted the works of many scientists. In particular in the economic aspects of this problem such scientists are involved: M. Besuglyj, O. Varchenko, M. Volkov, P. Gradiuk, M. Ilchuk, G. Kaletnik, B. Kostsik, M. Malik, V. Mesel-Veseliak, V. Perebyjnis, P. Sabluk, Yu. Tarariko, V. Shebanin, V. Shcherban, V. Yasenetskyj and others. However not enough attention is paid to the problem of directly financial viability and to the prospects of production and use of biofuel in scientific publications. Consequently different contra-versions arise up in discussions concerning the expedience or pointlessness of production and the uses of biofuel, related to their eco-friendliness or in-eco-friendliness, positive or negative influence on technical equipment, their economic and ecological efficiency or inefficiency, potential of production and use and so on.

Research methods and materials. The main sources of the necessary information for the researches were the corresponding data of statistical reference books and materials, published in works of scientists involved in investigating problem. The research uses data of statistical journals concerning agriindustrial complex of Ukraine, separate regions, materials of statistical reports of agrarian enterprises, results of researches of Ukrainian and foreign scientists on some aspects. Main method of research carrying is monographic one. It allows detailed study of works of scientists dealing with the problems mentioned above. These

publications include the main source of materials, used at the carried research. It was also favoured by combination of historical and logical methods at scientific and economical researches and also method of abstract and logical comparative analysis. Besides, the authors used complex of economic and statistical methods of scientific search in their work. It allowed analysis of large amount of information dealing with the problem.

Task setting. Task of the article is to show some main results of general analysis of existing situation with the level of Ukraine's agriculture development, governmental regulation of agro-economical, finance for energy and material-technical base elements purchasing, lack of logistic system in agribusiness enterprises as well as of some ways of named problems solutions searching.

Results and discussions.

Agrarian economy of Ukraine on the way of eurointegration

One of the course peculiarity providing entry of Ukraine into European Economical Area is its connection with necessity to determine Ukrainian external economic strategy as to EU, which is based on Constitution of Ukraine, Agreement of partnership and cooperation between Ukraine and EU (1994, Luxembourg), Edict of Ukrainian President "About providing Agreement fulfilment as to partnership and cooperation between Ukraine and European Union and improvement of cooperation mechanism with European Union" (1998) and "About ratification strategy of Ukrainian integration into European Union" (1998), results of summits Ukraine-EU 1997 and 1998, which foresee the policy of Ukraine's introducing into EU, improvement of cooperation mechanism between Ukraine and EU and maintenance of fulfilment of Agreement about partnership and cooperation, signed between Ukraine and EU. Since December 1999 relations between Ukraine and EU has obtained a new character according to EU Declaration which concerns a common strategy of EU countries-members as to Ukraine. At every next expansion step of EU, Ukraine may achieve progressive changes in the system of European integration or bring losses. As G. Soros said, integration is a dynamic process, and if the integration is not moving ahead than it will move back [2].

In spite of taking measures, concerning a reformation of agrarian and land relations on market grounds national economy is staying in crisis conditions. Reserves of labour in agriculture is 4,6 times lower than in the industry; and 2,6 times than average one in the national economy. Cultivated territory of Ukraine occupies 56,2%, farms – 77,8%, that is one of the higher figure in the world, but productivity of the most essential crops is in few times lower than in the economically developed countries, gross output production in calculation per ha of arable land – is 7,4 times lower than an average one in EU countries-members. More than half enterprises are unprofitable, private farms, which produce 75% of whole farm production, are unable to accumulate appropriate costs necessary for production management on the modern technical and technological basis. Processing sphere, as well as tractor, farm and food machine-building belongs to the forth (of six existing) technological level according to the technological process development. The share of innovative kinds of production, in total amount of food goods, makes 4,4% [3, p. 5]

Gross output production in calculation per ha of farms of Ukraine has recently made approximately 270 euro, while in EU countries it makes over 2000 euro. Our country remains far behind the European level of meat goods consumption per head in 2,5 times, and fruits – in 3,5 times.

All this makes a real threat to food security and economical independence of Ukraine.

The first contradiction on the way of Ukraine to the European integration is in the low level of Ukrainian general system competitiveness of Ukraine and condition of its high level to enter into EU. The second group of the contradictions has been formed between Ukraine's attempts to enter EU and its domestic needs. It is considered firstly, priority of AIC in Ukrainian domestic policy does not meet the requirement of economic priorities of EU countries, which limit the development of these spheres, secondly, Ukrainian producers of some food goods, specifically sugar, at the present stage have already become the competitors of EU members. They form powerful protection of their domestic agro industrial markets.

The main issues of the future negotiation as to Ukraine's joining to EU will be discussion of three important problems: free land market,

quotation of production and grant level of agriculture from the EU funds [4]. The main tasks of Ukrainian agriculture in context of its future integration into EU are the following:

Improvement of agrarian structure. The introduction of land market can play an important role here.

Increase of manufacture productivity and effectiveness and rural standard of life may be achieved by the improving of production technology, biological and organizational progress on the way of production concentration, specialization and concentration, rural cooperation development and business diversification, including agro tourism development.

Development of processing sphere in the direction of its potential modernization and improvement of horizontal and vertical integration forms.

Technical infrastructure development of rural regions. There is a considerable demand of melioration and conservation of land reclamation construction. Building tempo of water supply, water sewerage and water-purifying constructions should be increased.

Education and agricultural extension service. Educational system has to take into consideration the change of demand in highly qualified specialists in agrarian sector of economics. Multifunctional rural development will be associated with effective agricultural development. That's why, the extension service will cover such spheres as economic, financial and legal ones. At the same time the advisory service has to benefit the development of the technologies favourable for the environment: energy-saving, environmentally safe, with the use of renewable energy sources. The general task of state value is the improvement of Ukrainian legislation.

Governmental regulations of agriindustrial sector of Ukraine's economy: opportunities and threats

Agriculture itself as well as rural areas in the history of Ukraine has never got as significant state financial support as during Leonid Brezhnev's period – about 30% of state investments (in the absence thereof private ones in USSR) were directed to that sphere. Even in 1990 approximately one third of State budget was turned to agriculture, state order (a form of governmental buying-up) applied to grain, industrial crops, milk, meat, eggs, wool etc. State subsidies for 1 ton of milk equalled 40% of the price, for live-

stock meat – 40%, pork – 26%, mutton – 19%, poultry – 21%; undoubtedly, without these subsidies production would be unprofitable (-8,1% and -9%).

Undoubtedly, by reforming and establishing market system especially in rural areas, government would never return to previous volumes of total state orders because of the lack of financial resources, however, 3-4% of total Budget costs turned to agricultural development during the last decades is not sufficient. State financial support of agriculture in annual budget assignments for the agri-industrial complex consists from both general and special funds (parts) of State budget. Despite the fact that financial support of the agri-industrial complex increases annually, miserable and insufficient amount of costs reach agricultural producers. As a result, the most of problems in economy of Ukraine are not the consequence of insufficient presence of the State, but of inefficiency of its governmental regulation, most of all, by inefficient of budget financial resources use.

Budget support of agrarian sector during the last years has been increased both by means of state budgeting and by mechanisms of taxations and special treatment. Under the conditions of independence obtaining tax burden of Ukrainian agricultural enterprises was beyond their strength – agricultural producer had to pay 12 different kinds of taxes. It caused deep economical inability of the branch and, at the same way, decreased tax payment level.

During the process of reformations government refused to regulate crediting as a part of the external source of financing which became a competence of the commercial banks. It was considered that every enterprise is able to obtain a loan on the credit market for some certain price. But this universal model didn't work in Ukraine. The overwhelming majority of the enterprises couldn't get the loan. The most of bank loans for the agriculture are given for the short-term period. The main factors which restrain the long-term crediting are: lack of credit resources; high level of required reserves norms for the commercial banks and their (banks') insecurity at the same time; absence of the credit guarantee system, as well as lack of the agricultural enterprises' collateral; high level of the prices for banking services. If to compare the level of the credit interest rate and level

of their rate of return, we can observe that the producers can't obtain credit by just themselves.

Economic data results analysis make it possible to draw a conclusion that the main financial reserves for the agri-industrial complex (mainly, agrarian sector) recovery are far beyond the competence and power of agrarian enterprises. The most realistic direction (way) of the investment for the agriculture problem solving is the increasing of the role of regulatory governmental policy concerning agriculture and international collaboration activation.

Tendencies which take place nowadays in Ukrainian agriculture conform to crisis situation, especially sharp in Ukraine (in comparison with other countries) because of the presence of the political crisis, crisis of the authority which is even stronger and more dangerous than financial one. As a result, lots of economical problems arise.

At the same time, in cities sometimes we may observe a kind of "panic attack" – there is no money to pay off a credit, no chance to get back your deposit from the bank, prices have been increasing. But in rural areas farmers never become panic-stricken – they always keep an eye on the situation and control the situation, even under the worst circumstances. Problem and target of the State is to make favourable conditions to let the farmer to work properly.

***Alternative power engineering in
the context of sustainable development
of rural areas***

In spite of the fact that the period of trouble-free connections of socio-economic and natural environment has come to an end already the reduction of human influence on nature due to rolling up of production volumes is practically unreal. The only possible direction of further development of these relations is an increase of level of rationality of the using the natural resources in the process of their exploitation. In such a context the development of biofuel industries organically inserts into general conception of solving the problem of power safety in Ukraine and in conception of the balanced development of rural regions of the country.

So far as Ukraine officially declared way of development to Euro integration, one should consider that in the structure of energy consumption in the EU countries biofuel had

to reach 5,75% till the end of 2010 [5, p. 8]. Besides, it is important to know that today's general crisis in Ukraine is characterized by high level of dependence of Ukraine's economy on import of fossil raw material for power engineering – i.e. oil and gas. In general Ukraine is an energy scarce country. It has its own oil energy resources, meet only 10% of the country's needs [5, p. 8]. In Ukraine all these facts make a problem dealing with the necessity of fast development of bioenergetical branches, its optimal balancing with the development of agriculture, providing its state support and control in order to keep optimal correlation between food parameters at foodstuffs production and ecological and economical parameters at biofuel production. Under modern conditions of a village, both production and use of biological kinds of fuels will favour sustainable development of rural areas.

Strategic directions of Ukraine's economy development till 2030 are determined into three directions:

- till 2010 – structural transformation of innovative direction;
- 2011-2020 – progressive development of traditional branches of services and formation of fundamentals of postindustrial type of development;
- till 2030 – complete of transition to postindustrial society with particular change of economy structure.

Fulfilment of those directions of development needs increase of the amount of GDP almost into three times and consumption of prime energy resources – only in 51% (from 200,6 million t of nominal fuel in 2005 to 302,7 million t of nominal fuel in 2030) [6, p. 53].

Ukraine is an energy-scarce and energy-dependent country and today takes the 19-th place among the countries which mine oil. The requirement of the country in oil products is 24-28 million t per year.

Increase of rate of economic growth comparing to the rate of consumption of prime energy resources has to be provided by means of two factors:

- technical (technological) energy saving, that requires modernization or change of energy consuming existing technologies, increase of energy efficiency of industry and social and communal sector of economy and decrease of costs on energy resources;

- structural energy saving by means of complete structural change and creation of less energy consuming economy as well as introduction of innovative technologies, including development of alternative power engineering by means of biofuel production from agricultural crops, because Ukraine has all necessary resources, first of all natural ones.

Renewable power engineering is the third kind of energy production in the world (after coal and gas) and has a potential of further growth, having both economical and ecological advantages. But renewable sources of energy will be able to compete by prices with the fossil ones only in case of different forms of state support of governments, including Ukraine [7, p. 67].

Experts' calculations prove that nowadays it is more efficient for Ukraine to export rape than to process it into oil or biodiesel. Present correlation of prices on energy sources and biofuel raw material makes production of biofuel unprofitable for Ukraine. As formation of domestic market of biofuel requires time and affords (machinery, equipment, development of standards etc.), development of biofuel industry in Ukraine at the first stage is more economically profitable by means of export, to the EU countries in particular, and because of potential investment flow from the EU.

Nowadays rape export is the best strategy for Ukraine, keeping Ukrainian products at international markets till the time when price correlation is changed [8, p. 31]. Domestic consumer will be interested in transfer to biodiesel only in the case when cost of biodiesel in Ukraine as well as in Western countries, is lower than diesel fuel.

Besides, orientation of domestic agricultural production at rape as a final product for longer period is very harmful as Ukraine's agriculture is going to be transformed into raw material appendix to economy of the EU countries.

Possibilities for the production of biofuel in Ukraine are rather considerable. Power potential of biomass in a country presents about 23-24 million t per year and peat is 0,6 million t per year [9, p. 26; 10, c. 17]. The study of power balance of Ukraine testifies that the country uses only 10% of own power potential [11, p. 26]. Today the part of biomass in an energy supply in Ukraine presents 0,5% [12, c. 128].

Only from a corn at gross collection 12 million t we can produce 8 million t biofuel per year and sugar source for fermentation can be also vegetable wastes and other materials which contain cellulose. But it is most advantageous to get bioethanol from sugared cultures by processing them into ethanol (spirits, only technical). There are sugar beets in Ukraine.

Also it is a great amount of wastes in saccharine industry because of absence a considerable population of agricultural animals in Ukraine.

Spirit plants of Ukraine can produce today 7, 5 million t bioethanol per year. Thanks to stable demand the power can be increased 12 million t per year and in future to 35 million t per year. In parallel permanent demand is set on molasses and grain. On condition of establishment of obligatory volumes of consumption of biofuel, the producers of petrol will provide 10 thousand workplaces in a spirit industry. For this purpose it is not even necessary to build new plants. It is enough to recondition the part of existent plants the powers of which are under-loaded. And on average 40% powers of spirit plants in Ukraine are under-loaded, while for a cost-effective production 60% work-loads are needed. Today near 50% of spirit plants of Ukraine are unprofitable. The principal reason is out-of-date equipment that causes the overruns (in two times) of energy on realization of technological process. Today in Ukraine for the production of 1 m³ bioethanol the spirit plants consume 9,6 t of steam and in the USA and Europe – 4,2 million t [13, c. 48]. It must rather seriously cause alertness with the interested imperious structures as a technological backwardness is one of reasons of bankruptcy of producers of ethanol in the developed countries of the world today.

The main culture, oil of which can be used for the production of biodiesel in Ukraine is rape the seeds of which contain 38-50% oil [14, c. 35]. It can be grown on soils unsuitable for any other culture, undemanding and simple enough in till and supervision. But it is, nevertheless, a hi-tech culture. So the technology of its cultivation, though relatively simple, must be self-possessed, especially in relation to preparation of soil. As a predecessor rape also is a valuable culture, especially for grain-growing and in particular for a winter wheat. The profitability of rape cultivation is 400-500%. And in case of processing the oil into biodiesel this index

grows on an order. We can predict that adjusting of the complex system in biodiesel production in our country would allow in a considerable measure to promote the level of economy of rural territories.

Sowing areas of rape in Ukraine have been considerably extended since 2003. The areas under rape cultivation in 2009-2010 presented 1,4 million ha [15, c. 152], and the volume of production of oil-bearing seeds of this culture is more than doubled (from 158,3 thousand t to 647,1 thousand t) [8, c. 31]. If we take into account that in Ukraine 75% of plough-land is suitable for rape cultivation which in our conditions is the best raw material for biodiesel production, then it is possible to consider that the country has a powerful potential for reduction of power dependence on petroleum magnates. Potential possibilities of Ukraine in rape cultivation are approximately 3 million ha and at the middle productivity 30 c/ha. The processing of only 75% of rape gathered from this area at the productivity 30 c/ha will give an opportunity to get 2,7 million t of biodiesel fuel which is equivalent 2,3 million t of traditional diesel fuel for the production of which would be necessary to process 7,7 million t oil and this exceeds the annual own oil output in Ukraine on 3,6 million t. In addition while processing the whole rape it is possible to get 4,8 million t of rape mass that can satisfy all annual requirements in the mixed fodders (6,4 million t). The current costs of export of rape mass present about 140 dol. of the USA/t that is practically at the level of prime price of rape cultivation [16, c. 94]. On condition of taking in Ukraine under rape 10% of plough-land what technologically is quite possible, and the achievement of the productivity is 25 c/ha what is also real and it is possible to produce annually to 8,5 million t of rape. After processing of this raw material it is possible to get 3 million t of biodiesel which would provide 75% of annual fuel requirement in an agro-industrial complex of Ukraine [17, c. 55]. As for other calculations it is rational to sow rape in Ukraine on the territory of 11% (3,5 million ha). Ideally the agrarian sector of Ukraine requires 1,7-1,8 million t of fuel per year and to provide such a requirement with the help of biodiesel at the middle productivity 10 c/ha we must sow the territory of approximately 5,4 million ha. It is also necessary to take into consideration the technological level

of raw materials processing. The foreign equipment processes 350 l of fuel from one t of rape and the domestic one only 175 l. We must take into account the experience of Poland and Slovakia which developed biodiesel production in small villages on the equipment with the capacity of 500 t of fuel per year. And now they try to sell this equipment in Ukraine as almost 40 plants with the capacity of 10 thousand t produce biodiesel in Poland.

Ukraine is considered to be the territory suitable for development of biogas technologies. Annually about 52 million t raw materials of animal origin, suitable for the production of biogas, the amount of which can attain 2207 million m³, is produced in a country. Power potential of biogas of Ukraine presents 1,0-1,59 million t of conditional fuel (1,3-2,0 milliard m³). Its use will give an opportunity to satisfy 4-7% of annual power necessities of the country. According to specialists calculations the production of biogas from wastes of stock-raising is expedient, if there are even 500 heads of cattle in an economy [18, c. 19, 20; 19, c. 47]. The results of evaluation of possibilities of receiving the energy from biomass in Ukraine confirm that the potential of production of biogas at the stations of airing and other sewage treatment plants makes 0,2 million t per year, from the dumps of domestic wastes is 0,3 million t per year, from organic wastes of agriculture is 1,6 million t per year and from the pus of animals is 1,4 million t per year [18, c. 21]. However nowadays in Ukraine there are three more or less powerful stations functioning on semi-legal position for the production of biogas (while in Germany there are 8 thousands). Although, even, if in Ukraine 10000 gas bio-installations are built (it is hardly possible), as a result of their functioning it will be possible to produce only to 0,1% electric power from its general necessity. This part can not compete with other types of sources of receiving electric power. That is why the prospect of biogas options in Ukraine is outlined by possibilities of their use as cleansing fluidizers processing of organic wastes [20, c. 95, 98].

The main problem in development of bioenergetics in general and production of bio-fuel in particular in Ukraine is the absence of economic mechanism of adjusting the production and market of biofuel what is typical for the entire developed countries of the world [21].

Development of information and logistic systems at the agribusiness

In general we can state that the concept of logistic activities in the present day form clearly reflects the main goal of logistic activities management i.e. "...optimization of reproduction cycle by means of complex and oriented on demand formation of the material and information flow in the production and distribution of products" [22, p. 14]. To achieve this goal the theory of logistic management recommends to create different logistic formations, i.e. the specific type of union of economic subjects which are involved in the process of supply of materials or products.

Development of logistic and information system at agribusiness enterprises of Ukraine is going on but this process is not systematic though it has a tendency to intensification. The prevailing number (75,0%) of agribusiness enterprises don't possess the necessary amount of computer equipment, software, communication means, normative and reference information data for the formation, application, and generation of logistic information flows. Most of the enterprises (90,0%) apply the traditional technologies for the processing of the information (they don't use computers at all or use it to a very limited extent). The most used form of logistic management at agribusiness enterprise connected with the use of modern information technologies is a set of measures aimed at collection, processing and delivery of information, (23,2%) and creation of transport and storing terminals (17,9%). But as research conducted in the form of questionnaire showed the work on accounting and analysis of logistic expenses at agribusiness enterprises has not been rearranged though all the enterprises in order to provide financial reports give an account of production expenses according to the paragraphs and elements of expenses (100,0%). That's why these enterprises manage their expenses taking into account only the type of expenses (100,0% answers), and 5% of enterprises have in mind responsibility centres in addition. Such conditions in the management of expenses has its impact on the formation of the expenses management system at enterprises that have to provide the function of accounting and analysis of expenses (100,0% answers), as well norm setting and planning the expenses by the kind (25% answers). Seed

expenses are mostly often planned and norm set (80,0% in the group and 20,0% of the total number of sample enterprises) as well the expenses on raising the animals. Production expenses on forage stock are planned and norm set not very often (correspondingly 60,0% and 15,0%) and the stock of ready made products (60,0% and 15,0%). Majority number of enterprises provides the implementation of logistic function by means of one of the traditional services or by one of the specialists of these services. Though previously admitting that separate logistic service is required, only two out of three enterprises have created such services. 55,0% of positive answers agreed that the main attention in the work on optimization the logistic processes in agribusiness must be concentrated on improvement the connection links between the agricultural enterprise and its contra agents in the logistic chain when performing logistic functions of purchasing and distribution. 20,0% (that is much less) agreed on improvement the logistic operations of material character; 15,0% of respondents give priority to the work on stock optimization. The reason for such conclusions may be related to the competence level of agribusiness specialists responsible for logistic function. The interviewed experts think that specialists have the highest qualification level in the spheres that reflect the specialization of corresponding structural subdivisions which are responsible for logistic function. And the specialists have the lowest qualification level in the spheres connected with their mathematical training and organization of logistic service in the supply chain.

Taking into account that logistic activities of agribusiness enterprises under conditions of high competition must be relevant to the general strategy of the subject of economic activities we propose to create the integrated logistic information system for agribusiness enterprise **oriented at distribution.**

Conclusions. The European integration is the final determined policy course of the further social, political and economical development of Ukraine. Success of Ukraine's preparation process for integration into European Union will mostly depend on the development level of its agro industrial complex, as Ukraine is an agrarian country in a good sense of the word. Realization of the mentioned direction will favour the fast move of Ukraine by the innovative

way as a result of wider excess to the newest technologies, capital markets and information banks of EU.

However, the modern state of the Ukrainian economy and especially of its agrarian sector obviously requires to be better as the material and technical base of agro industrial complex (AIC) is divided into small units and worn out both morally and materially; more than a half of agricultural enterprises is constantly non profitable, labour potential is employed rather not productively. In connection with this, the main ways of improving the situation in AIC of Ukraine for the nearest period must be development of cooperation and agro-industrial integration, scientific substantiation of functioning and land market introducing principles, and balanced rural regions development.

Economic data results analysis make it possible to draw a conclusion that the main financial reserves for the agriindustrial complex (mainly, agrarian sector) recovery are far beyond the competence and power of agrarian enterprises. The most realistic direction (way) of the investment for the agriculture problem solving is the increasing of the role of regulatory governmental policy concerning agriculture and international collaboration activation.

Tendencies which take place nowadays in Ukrainian agriculture conform to crisis situation, especially sharp in Ukraine (in comparison with other countries) because of the presence of the political crisis, crisis of the authority which is even stronger and more dangerous than financial one. As a result, lots of economical problems arise.

Ukraine has energy deficiency and depends on other countries, having limited possibilities to cover needs of energy by its own deposits; practicable way for Ukraine to overcome the existing economic situation is to develop non tradition alternative power engineering, including growing of oilseeds, i.e. rape and maize for the purpose of its processing into biofuel, for what Ukraine has all necessary conditions, first of all natural ones; development of biofuel production as an alternative power engineering is possible only under conditions of state regulation and support of this direction of economy, because nowadays it is more profitable for Ukraine to export rape than to process it into oil and biodiesel. Present correlation of prices on energy sources and biofuel

raw material makes production of biofuel unprofitable for Ukraine; as formation of domestic market of biofuel requires time and affords (machinery, equipment, development of standards etc.), development of biofuel industry in Ukraine at the first stage is more economically profitable by means of export, to the EU countries in particular, and because of potential investment flow from the EU; giving preference to export of biological raw material instead of its processing into biofuel is harmful because it threatens Ukraine's transforming into raw material appendix to the European power engineering and greatly damages its ecology; development of alternative power engineering by means of growing agricultural crops for processing into biofuel enables complex solution of the problem of rural areas by increasing effectiveness of agricultural production and demand on agricultural biofuel raw material, improving fodder supply or cattle-breeding, increasing level of population employment, allowing growth of genetically modified kinds of such crops, providing better supply of agricultural producers with fuel (ecologically clean), increasing attractiveness level of rural life both from economical and social and ecological points.

Biological types of fuel in Ukraine can not have strategically decisive value in solving power problem. But providing the agricultural enterprises by relatively cheap types of oil-fuel and as the direction of diversification of entrepreneurial activity in the village they can play rather perceptible role. In the conditions of modern situation in the village both production and use of biological types of fuel are the real ways for assistance of balancing the development of rural regions. The problem lies in the insufficient understanding of essence and value of biological types of fuel as an alternative source of power resources on the different levels of economic hierarchy. One of the factors that causes such a problem is an insufficient lev-

el of scientific ground of expediency and efficiency of production and use of biological types of fuel and studies the possibilities of agriculture in providing their realization. The fostering of alternative energy by growing of agricultural cultures for processing them into biofuel allows to solve the problems of development of rural territories by increasing the efficiency of agricultural production due to demands on agricultural biofuel raw materials, improvement of feed base of stock-raising, increasing the level of population employment, realization of possibilities of cultivation the genetically modified sorts of these cultures, improvement of providing the agricultural producers with fuel – ecologically safe during its use, what provides ecological safety of environment in rural regions promoting the level of attractiveness of rural life both in economic and social and ecological plan. The fostering of biofuel production as the direction of alternative energy is possible only on condition of development the program of government control and support of this branch of economy.

There is an objective necessity in adjustment the system of inter branch relations in agribusiness, its structural correction, improvement of organizational forms and inter relation mechanisms of agribusiness subjects under condition of unity of agriindustrial production and exchange. In other words there is a necessity to intensify the work of all the subjects of economic activities involved in the logistic chains created by agribusiness enterprises in order to manage the material and information flows on the basis of introduced logistic and information system of agribusiness enterprise using the scheme of distribution oriented business model. The task of managers at agribusiness enterprises as to logistics is to set up effective integrated system for regulation of material and information flows and their control that would ensure a high quality of enterprise's performance.

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