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Dear colleagues, students, graduates!

This publication is devoted to the 60th anniversary of the faculty of Economics of the National University of Life and Environmental Sciences of Ukraine, the institution of the research type, which trains highly qualified specialists for agro industrial and nature protection spheres.

Educational and scientific institute (ESI) of business created by branch integration of the faculties of economics and agricultural management, training and scientific centres of related departments, scientific and research institute of economics and management of agroindustrial production, training, training and scientific, training and scientific and production laboratories, production subdivisions carries on educational, scientific, scientific and methodical, educational and scientific and innovative activity connected with the obtaining of higher education and qualification in agroindustrial production. ESI of business was created to realize efficiently the statute objectives of the university. V. P. Galushko, honoured worker of science and engineering of Ukraine, doctor of economic sciences, professor and correspondent member of NAAS of Ukraine headed the institute till July, 2011.

It is clear that the creation of ESI of business was impossible without the contribution of several generations of researchers and lecturers. The history of ESI of business originated from the creation of Kyiv Polytechnic institute in 1898 where the department of agricultural economy and statistics was founded at the agricultural faculty. The foundation of the faculty of economics was approved by the order of the minister of higher education of the USSR №768 on 15.05.1951 about the creation of the faculty of economics and agriculture organization at Kyiv agricultural institute.

In independent Ukraine there was the necessity in training of specialists of new quality who are able to make substantial decisions under market relations. With this aim the faculty of agricultural management was created according to the decision of the scientific council and the order of the rector of the university D. O. Melnychuk, academician of NANS and NAAS of Ukraine on July 1, 1995.

ESI of business is the subdivision of the university that is constantly developing. The institute staff is highly qualified specialists who work hard for the improvement and development of the institute meeting the requirements of the current world. The training process at the ESI of business is provided by 12 departments, where 24 doctors of sciences, professors, 161 candidates of sciences, associate professors, 2 academicians, 2 correspondent members of NAAS of Ukraine, 4 honoured workers of science and engineering of Ukraine, honoured worker of education and 3 honoured economists of Ukraine.

At present ESI of business trains Bachelors according to 5 directions and Masters in 8 specialities on the base of elaborated unique educational and professional programmes in industry-oriented and research specialities. More

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The role of the agro-industrial integration in the development of the dairy sub-complex in Ukraine

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Abstract

The article presents theoretical aspects and the essential characteristics of the concept "agro-industrial integration", discloses its role and place in the agrarian sector of the economy, and justifies the necessity of the creation an integrated production in the Ukrainian dairy sub-complex.

Key words: the agro-industrial integration, types of integration, the dairy sub-complex, agro-industrial formations, a dairy cattle farming.

Introduction

The economic activity, as a process, has various aspects, the most significant are: economic, environmental, social and technological. The relationships in the economic activity process among the participants can acquire the appropriate type. To bring the essence of economic relations only to mutual payments and making agreements is not really correct from the economic point of view.

At the present stage of social development the requirements for the quality of food resources are increasing. Solving the important task of ensuring food security of the country means, first of all, the state guarantee of the full and balanced nutrition of its citizens. As for the balance of nutrition, this problem has not been solved yet because an average Ukrainian person hasn't got significant amount of animal products.

The modern state of integration processes in agro-industrial sub-complex and the prospects of their development in the market conditions have been attracting the attention of many researchers. Among them there are such Ukrainian scholars as V. Andriichuk, P. Berezivs'kyy, S. Vasylchak, P. Gaydutskyy, T. Dudar, V. Zinovchuk, M. Ilchuk, M. Malik, P. Sabluk and others. Among the foreign scientists we should call I. Ushachov, I. Minakov, G. Hokman, and D. Hay.

According to these scientists (Kobets E., 2007), large integrated farms are the most perspective organizational forms of management because of their ability to combine the production, processing and marketing of the agricultural products, to use new technologies that are financially unable to afford for another enterprise's types, to minimize transaction costs, and to optimize the taxation.

However, according to the last years' features and trends of the agro-industrial integration in the dairy sub-complex, some approaches proposed by

these authors require the deepening and adaptation to the modern realities in the specific context of the improving the efficiency of the agricultural enterprises' functioning.

Results and discussion

The dairy sub-complex occupies an important place in the agriculture of Ukraine, as it provides the population of vital food products, many of which are strategic in the export potential. Unique properties of milk and its processing products lead to the necessity of consumers' uninterrupted provision of such products, which requires the effective functioning of the dairy sub-complex.

For several previous years the consumption of milk and dairy products by the population in our country has been significantly reduced, together with deteriorating their quality, despite raising prices. This situation poses a direct threat to public health, especially to the younger generation. This situation is so critical that a dairy cattle farming in Ukraine is in danger of collapse, in particular in the Poltava region.

Despite significant decrease of production of milk, Ukraine still remains large producer and takes the tenth place in the world rating of the largest countries-producers of cow's milk. According to results 2010, 12.2 million tons of milk was produced in the country. The dairy industry of Ukraine totals over 450 enterprises, but recently only about 250 dairy plants/enterprises really process large volumes of milk (over 6 million tons).

The Ukrainian dairy industry remains very attractive to foreign investors. The branch totals the largest quantity of projects with foreign capital among all branches of the food industry. Despite the problems in the industry, Ukraine remains a major exporter of dairy products. The country is among leading world exporters of some dairy products.

After several years of the relative stabilization, the next stage of the significant decrease of the milk production is observed in Ukraine. The decreasing of the interest in dairy farming from the direction of households is an important factor, influencing the process of reduction of cows' number in the country. During the long term agricultural enterprises will increase milk production. In Ukraine the seasonality of the milk production is most evident. The share of milk deliveries from agricultural enterprises is much lower, than from households. The poor quality of delivered for processing milk is the problem №1 of the Ukrainian dairy industry.

In the country over 200 plants produce fermented milk products, but 20 plants produce about 70 % of the total output of these goods in the country. Foreign suppliers are especially interested in sales of yoghurts and curd desserts to Ukraine. The volumes of the export of fresh milk products are insignificant. Algeria is the basic commodity market for Ukrainian milk powder. The manufacture of butter is much lower, than spreads production. The 35 % of the total milk deliveries in the country is directed to the cheese production. The

manufacture of cheese is considered again one of the most profitable directions in the dairy industry of Ukraine.

The investigation of the dairy sub-complex production's structure allows to work out some measures for the effective structure of the interaction of all its business units, and creating competitive integrated market-type formations.

The mutual relationship among partners in dairy products sub-complex covers all the stages of manufacturing final produce, at all levels: management, organization, production, transportation, processing, storage and selling. Causes, contents, scope, functioning and the task of relationships allow to distinguish three basic types among them: production, organizational and financial. The purpose of forming the mechanism of regulating these relations is to ensure maximum equivalent exchange of enterprises' labour at different stages of the final product and bringing it to the final consumer, aimed at ensuring their mutual participation in common activities, the successful achieving by each of them their goals and solving social and economic problems of the village.

While studying the possibilities of determining the organizational form of economic relationships in the dairy sub-complex, which determines the nature and characteristics of the subject of this research, it was revealed that the organizational form of economic relations is purely informal, although in some specific cases it may take formal significance. Such cases include the creation of agro-industrial enterprises, associations, agro-industrial financial groups, corporations or even agricultural holdings and concerns.

The dairy sub-complex is a set of objectively existing enterprises of the agricultural and industrial production, service activities, interconnected and oriented to receive agrarian raw materials, their industrial processing and marketing the final product. Mostly the level of the performance by the dairy sub-complex depends on its composition and structure that objectively envisages for the economic relations' realization among its participants, based on the agro-industrial integration. The specifics of these relationships are stipulated by technological, biological and economic characteristics of dairy cattle farming.

The term "integration" is derived from Latin and means combining separate parts into a whole (Andriichuk V., 2002).

Firstly, the word integration means the organizational combination of technologically interconnected activities with their specific functions to produce the final product and bring it to the consumer, and on this basis to achieve higher economic results.

Secondly, agro-industrial integration means the development of industrial and economic relations between branches and agricultural enterprises, which are interconnected, technologically and objectively by oriented to combine their material interests in the production process and final products from agricultural raw materials' selling (Sabluk P., Malik M., Valentines V., 2002). Strengthening these links is a natural phenomenon. This is because the development of the branch increasingly depends on the industry that supplies the village with the

necessary means of the production. Their share in the structure of the consumed material resources is within 35-38%.

In the agricultural production there are three types of integration: horizontal, vertical and mixed.

The horizontal integration occurs by consolidating agricultural enterprises for the production of specific products or services for the one purpose.

The vertical integration involves combining businesses that operate in different economic sectors for the purpose of circulation of commercial products. It integrates the production, harvesting, transport, industrial processing and marketing.

The mixed integration is found in the consolidating companies of different branches, between which there is no the technological and technical connection with the production and sales.

Objective factors that stimulate the development of integration units are:

- unbalanced relations in the agriculture;
- the intermediaries' dominance in the relationship between the agriculture and another agricultural branches, and its industrial infrastructure;
- the lack of a clear government policy to support the development of agricultural enterprises;
- the economic monopoly of processing and service enterprises and the inability of the agricultural sector involvement in the pricing process;
- the weak local market's fullness of its own regional products.

All these reasons make the relevance of the development of relevant theoretical and applied principles of integrated production.

The temper factor in integrating of farmers in horizontal and vertical direction is the absence of necessary resources that allow them to be equal partners in associations. It is possible to improve this situation by the state's participation in such processes as the guarantor of property and financial contributions of farmers. Moreover, despite the significant risk in agriculture, it would be good to provide insurance functions from the state.

Among the advantages of the agro-industrial integration we can select the following:

- it provides a single process of production, procurement, storage and processing of products;
- more favorable conditions for the wide application of the scientific and technological progress are created;
- the reducing of administrative personnel is achieved;
- the conditions for interests' combination of all agricultural participants are created;
- there is the possibility of organizing production through the effective saving of all resources;
- the optimal combination of epy territorial and sectored management is provides.

However, the concept of the "agricultural production" is frequently considered very simplistic, and often the separated agricultural production or the industrial processing of agricultural products is treated as the essence of the agricultural production. Meanwhile, an agricultural production in the full sense of the word should be considered such an organizational and industrial form of the integrated relations (economic, social, organizational and technological), where an agricultural production cycle makes it possible to achieve a common result by reducing the gap in space and time in an integrated chain "production → processing → trade". The whole essence of the agricultural production, its capabilities and expected results are directly dependent on the ratio and interaction of three components of a single agricultural cycle: the agricultural, processing and trade (Butko M., 2010).

For a thorough understanding of the importance of the agricultural production cycle we propose to consider its structure using the dairy sub-complex as an example (Table 1).

Table 1

The production cycle's structure of the dairy sub-complex in Ukraine

Components of agricultural production cycle	The appointment of cycle components
1. Agricultural	1.1. The breeding: breeding and genetics, reproduction tribe, herd reproduction. 1.2. The service and production support: forage providing and feeding, veterinary services, logistics supply, artificial insemination, repair and maintenance of equipment. 1.3. The milk production: heifers growing, milk production section, primary milk processing.
2. Processional	2.1. The milk provision: reception centers keeping, central transportation of milk. 2.2. The service and production support: material and technical supply, acquisition of ingredients, water, heat and electricity saving, production of packaging, repair and technical maintenance of equipment. 2.3. The milk processing: introduction of deeply integrated milk processing, recycling waste and byproducts, bottling, packaging, forming bulk, delivering dairy products to retail and wholesale trade.
3. Trade	3.1. The delivery and acceptance of dairy products. 3.2. The formation of trading places. 3.3. The organization of advertising and tasting. 3.4. The trade organization of selected range of dairy products. 3.5. The sales monitoring and demand analysis for all types of dairy products.

As we can see from this table, all components of dairy products' cycle are

interrelated and complementary. It follows that the second and the third cycles should also be interested in the effective functioning of the first cycle. The common effect can be achieved only considering this condition.

This situation should be promoted by mutually beneficial motivation, which meets the requirements of the market economy. It is not just the traditional clear principle of relationships on the basis of the scheme: "Agriculture → Processing industry → Final products' trade".

This is the relationships that are built on the feedback principle. These relationships require the next rebuilding: "Agriculture ← Processing industry ← Final products' trade".

It should be emphasized that in most cases the partners in agriculture of Ukraine operating separately. Each of them moves in its own economic coordinate axis: the trade generates a price itself, the processing industry operates using the same principle, which is also still holds a monopoly position, and only agriculture is left alone. Its economic coordinates' axis is determined by the monopoly position of processing industries.

We have a situation when the agriculture is an unprofitable (except for some areas) business because of the economic inconvenience of the production, while its partners in agriculture receive incomes. As a result, the production of agricultural raw materials is reduced, forming a chronic under-utilization of the processing capacity, and the final products are more expensive. This situation has led to using imported raw materials (which are smuggled very often) and enrolling our Ukrainian production of raw materials (Khorunzhiy M., 2008).

The good example is the experience of the U.S. dairy sub-complex, where the relations base is the principle of the cash distribution of the final products' sale using the already installed portion: a farmer - 46.6%, a dairy plant - 26.3 plus 1.9% for reproduction, trade - 21.1 and 3.82% for the maintenance of the corporate body (Tsymbal V., 2010).

That is why, actually two ways to achieve the common effect in the agricultural production have been formed:

- The functional way, which is based on the realization its own functions by each element of the integrated production (such as primary production or its industrial processing);
- The synergistic way, based on a complex and common economic and production potential's using of the integrated unit in general, not only its individual components (Moroz O., 2010).

There is the foundation for the agricultural formation in both cases. The difference is that following a functional way, each link produces its goods as a final product, and the relationships are based on inter-farming agreements. In this case those, who stand closer to the end of the agricultural production cycle (processing and trade), will be more successful.

According to the synergistic way, the each form at the each level (production, harvesting, processing and marketing) is an intermediate for the

final result because the final result is determined by the complete and ready-to-eat product sale.

So, agro-industrial formations are the organizational form of agricultural integration. There are two types of them: regional and at enterprise level. Regional agro-industrial formations are mainly represented by agro-industrial associations, and by agro-industrial units and agricultural firms. Developing effective forms of vertical integration of private farms as the major milk producers in the region and dairy processing enterprises will allow to improve raw materials using and production capacity and increase production.

Conclusions

In our opinion, the basic principle in the agricultural production in Ukraine should be getting a synergistic effect. So, for taking the path of the agricultural production's development Ukraine should form and strongly support the policy of an integrated approach to the agricultural production, processing and realization of the final products.

The main objective of the improving economic relations in the dairy sub-complex and optimizing their organizational forms is to ensure coordinated activities of various economic and legal structures that participate in the organizational and technological cycle of certain types' production, directing efforts at each socio-economic and environmental interest in getting a higher final result.

The most effective forms of economic relations in the dairy sub-complex is the agro-industrial integration, which enable most participants to combine the interests of relationships with the advantages of a private property, an economic freedom and the high levels of the economic discipline and coordination.

According to the methodological issue the development of the agro-industrial integration in the dairy sub-complex means the growth of its organizational and economic integrity, as this process occurs through the establishing new and strengthening existing economic, organizational and communication linkages among the companies that are related to the similar levels of the technological chain.

References

1. Andriichuk, V. (2002). *Economics of agricultural enterprises.* Kiev: KNEU. p. 624.

2. Butko, M. (2010). The agro-industrial integration as a way to enhance the agricultural production. *Agrosvit.* Issue 3, pp. 10-13.

3. Khorunzhiy, M. (2008). Agribusiness formations as a means of Ukrainian food security. *Economics of agriculture.* Issue 10, pp. 25-30.

4. Kobets, E. (2007). The historic aspects of the integration, its forms and directions. *The State and Regions. The Series: Economics and Business.* Issue 2, pp. 129-133.

5. Moroz, O. (2010). The activity of integrated agricultural enterprises. *Economics of agriculture*. Issue 4, pp. 96-103.
6. Sabluk, P., Malik, M., Valentines, V. (2002). *The inter-relationships' formation: problems of the theory and methodology*. Kiev: IAE. p. 294.
7. Tsymbal, V. (2010). In a single impulse: agricultural holdings. *AgroPerspective*. Issue 2, pp. 20-27.

Perspectives of the development of poultry market in Ukraine connecting with a globalization processes in the world

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Abstract

It is described a development of Ukraine and world poultry market in the article. Also it is highlighted a main tendencies of poultry production and distribution in the world. Furthermore the author mentioned a role of Ukraine in the world poultry industry.

Key words: poultry market, development of poultry industry, distribution of poultry

Introduction

Poultry industry is a major supplier in the world of relatively cheap and biologically valuable food for people. It has several advantages compared to other animal products: earliness, 2-5 times lower energy and protein feed costs per unit compared to the meat of pigs and cattle.

Poultry farming has always been one of the most important in providing high quality food. Therefore, its development in the future should be given special attention. Its development should be given industrial, special and high intensive status. Large poultry farms, poultry processing plant and other specialized companies create conditions for organizing poultry complexes, associations, poultry processing plant and poultry farms on different areas of specialization in terms of industrialization and intensification, specialization and concentration of production.

Results and discussions

Production of poultry in Ukraine is on a steady growth trend. The industry moved from quick expansion of 2002-2009 to slow massive capacity development with attraction of foreign capital and use of the most advanced technologies. Boosted by import restrictions, high prices for poultry and very