

Social and Economic Determinants for the Development of Resource Potential of Small Forms of Agrarian Production in Ukraine

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ABSTRACT

The socio-economic importance of small forms of entrepreneurship in the national economic model has significantly increased. There was substantiated an existence of specific features of small rural enterprise development of the leading European countries, since farming is the basis of family agricultural business. The theoretical and methodological basis of the research is the concept of low-income family-labor enterprise. There were used methods to evaluate the results of production and economic activity of farms based on the alternative ways to estimate the labor costs for the production owners. The development trends of farms in the European Union and the dynamics of the income level of the members-farm owners were analyzed. There were established the peculiarities of the farm holdings development in Ukraine and the factors that determine the specifics of their sectoral diversification. The comparative analysis of the level of production efficiency for the main types of agricultural products among the agricultural enterprises and farms of Ukraine was carried out. The need to integrate the monetary compensation of labor costs of farm members-owners as a component of their resource potential was proved. The significance of the research results to ensure the effective economic activity of small forms in Ukraine was substantiated.

Keywords: Agriculture, Efficiency, National Economic Model, Farming, Economic Activity

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1. INTRODUCTION

The current state of the world economy development is characterized by growing social and economic importance of small business as a form of self-employment for the population in rural and urban areas, as well as an important structural component of the national economic mechanism. It is well known that a number of branch directions and activities are more effective when their operation is based on principles of individual or family business.

The problem of ensuring an effective use of the resource potential of Ukrainian farms is largely due to the current state of the national agrarian sector and the role assigned to the family forms of agrarian production by representatives of state institutions. It is preliminarily assumed that farmers do not have their own consolidated position regarding measures to ensure a competitive performance of economic activity. Moreover, the problem of systematic scientific substantiation of the family forms of farming activity in Ukraine remains unresolved. This should include not only the typical organization forms of production in the various branches of agricultural, but also preparing specialists for this category of farmers. In our opinion, only in these conditions it is possible to ensure the effective use of farm land and labor and to stimulate this segment of agricultural production for further development (Atanelishvili and Silagadze, 2018; Silagadze, 2019).

At the same time, it should be noted that the economy based on the principles of multistructurality is one of the fundamentals of a market economy model. In agriculture, the small business transformed into a specific form of economic activity, known as farm or farming husbandry.

The peculiarities of its functioning should be attributed, first of all, to the family form of business with a periodic recruitment of hired labor. In the EU it is closely connected to the official status acquisition by farm and the subsequent receipt of appropriate preferences from the state budget. It is still impossible in the economic realities of Ukraine, but the increasing number of farms is one of the most urgent issues for the state agricultural policy.

It should be noted that the problems of small forms development in general and in the field of agrarian production, in particular, taking into account their socioeconomic significance as a means of self-employment, were reflected in the works of Badaruddin *et al.* (2017), Pourshahabi *et al.* (2010). Remeikienė and Gasparėnienė (2017) examine the prospects for farms development of in the field of green agriculture, analyzing the main factors that facilitate and hinder the development of this area of agriculture in Lithuania.

Theoretical and methodological principles of farms functioning as a specific component of agricultural pro-

duction were reflected in the works of Chayanov (2015), Chelyntsev (2012), Narotzky (2016) and others. In particular, in his works Chayanov formulated the basic principles of operating the family-owned agricultural enterprise, which is based on use of its own resource potential, especially labor and land resources (Chayanov, 2015).

The specifics of the current state and prospects for the further development of farms in the economic space of Ukraine were explored in the works of Kalchenko (2013), Kalchenko *et al.* (2018), Mazur *et al.* (2018), Varchenko *et al.* (2018) and others. In particular, A. Mazur points to the bipolar nature of the Ukrainian agrarian sector and parallel existence of agricultural and industrial formations, as well as farms operating on smallholder basis (Mazur *et al.*, 2018). Koblianska points out the need for a more detailed study of the small-scale subdivision in the agrarian sector of the Ukrainian economy, the specifics of its legal and regulatory differentiation, as well as the factors contributing to the growth of the family farms (Mishenin *et al.*, 2017).

The aim of the study is to explore the socio-economic peculiarities of using the resource potential of Ukrainian peasant farms, taking into account the common European trends, as well as the current state and specifics of the agrarian sector development in Ukraine.

2. MATERIALS AND METHODS

The methodological basis of the study is the concept of family enterprise, developed by the representatives of the organizational and manufacturing institutions. In particular, there were defined the basic principles of farm activity, which under the present conditions practically have not changed, namely:

1. The labor-consuming nature of production (the volume of production in a number of crops is limited by the food needs of household members).
2. Subsidiary nature of economic activity (the volume of cash receipts should cover the lack of own funds).
3. Lack of opportunities for lending and low investment attractiveness of the industry (there is no massive use of modern technological tools in the small-scale sector).
4. Absence of hired labour on a constant basis (limitation of production volumes on the total possibilities of labour costs; an increase in the number of “peak points” in the technological process of production in cases of a shortage of labour).
5. The model of “basic balance” (increasing labour productivity leads to a reduction in labour costs) (Korsunova, 2016).

Chelyntsev (2012) characterizes the specifics fea-

tures of the rural economy as a labour, indicates the state of rural family development as a socio-economic entity, conditioned by the simultaneous influence of two natural factors. One of them is the demographic growth due to young children, which further increases the number of family workers. At the same time there is an objective process of the emergence of a new farm as a result of the creation of a new family by young people (Egorov *et al.*, 2019).

We share the opinion of S. Kalchenko on the ineffective use of the existing assessment methods for efficiency of using the resource potential in the study of the functioning of family type agricultural production. One of the reasons is the availability of commodity, consumer-goods and consumer-oriented enterprises when each of them carries out its activities in accordance with various motivational principles (Kalchenko *et al.*, 2018). In our opinion, to determine the efficiency level of agricultural production in private farms, it is appropriate to apply a methodology for evaluating the effectiveness of functioning based on the conditional indicators of production, sales and consumption of agricultural products.

This method is attributable to the following features of operation at the small forms of agrarian production:

- 1) The specifics of the rural households, determined by the volume of production, the assessment of the efficiency level of production costs, taking into account the impact of the results on the total income of rural households;
- 2) Differences in the structure of production costs in rural households and agricultural enterprises (in particular, wages), as well as differences in the taxation system; a large part of the farmers is of retirement age who enjoy certain benefits;
- 3) The specifics of income generation for rural households and agricultural enterprises; the income composition for the households may include not only the results of economic activity associated with agricultural production, but also retirement benefits, returns on real estate, etc.

The proposed method allows estimating the nature of the production activity of the rural farms and the degree of their effectiveness, when calculation of economic efficiency of agricultural production, which is included in the general formula of the value of production (Marx, 2011), namely:

$$Q = c + v + m, \quad (1)$$

where Q : cost of production; c : fixed capital; v : variable capital; m : profit received.

Taking into account the fact that the work of the household members is not paid, we have calculated the conditional wage, as a hypothetical cash receipts, which

compensates for the labour costs in the farms. This indicator is calculated by multiplying the amount of labour expenditures in kind by the value of 1 man-hour with hourly labour. Thus, indicators of the efficiency of agricultural production in rural farms are calculated by the following formulas:

$$GI = P - P_c, \quad (2)$$

$$CNI = GI - C_w, \quad (3)$$

where GI – is a gross income, P – proceeds, P_c – production costs, CNI – conditional net income, C_w – conditional wages.

Since the activity of rural farms is determined not by the maximization of profits but by the labour-consuming balance (i.e., the ratio of the efforts expended and the total volume of the result obtained), then, in our opinion, it is necessary to take into account the impact of agricultural production on the welfare of the family. For this purpose, we propose a calculation of the share of manufactured products in value terms in the total income of the family. Thus, the adaptation of the existing methodology for assessing the economic efficiency of agricultural production regarding the specific functioning of rural farms is achieved.

This methodology can be used to determine the efficiency level of production and economic activity of small agricultural enterprises of the family type:

$$Git = \sum_{i=1}^n P_i - P_{ci}, \quad (4)$$

$$Nit = \sum_{i=1}^n G_{it} - C_{wi}, \quad (5)$$

where Git – total gross income, Nit – total net income, and i – number of the type of activity of the economy

3. RESULTS AND DISCUSSION

3.1 General Tendencies of Development of the Small Forms of Agrarian Production

Indicators of the agricultural production dynamics in the EU countries do not show a clearly expressed tendency to reduce or increase volumes. Thus, the periodic fluctuations in production, which increased during 2010-2013, changed with fall in volumes in 2014-2016 due to the results of the global financial crisis. These trends are appropriately related to the level of prices, the cost of production, reflected in the income of European farmers (Figure 1).

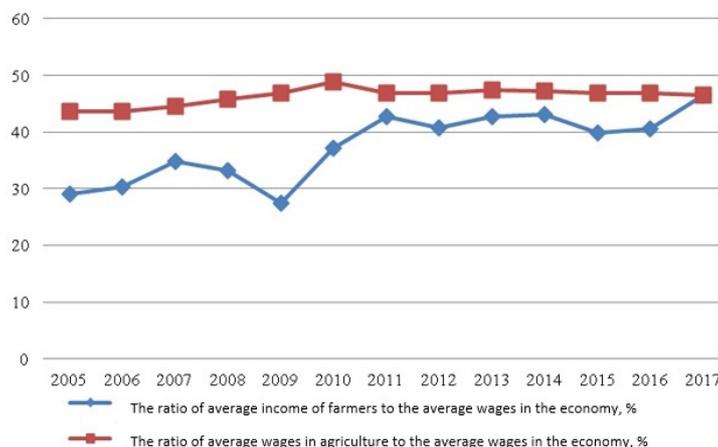


Figure 1. Efficiency of labour resources in the agrarian sector of the economy of the EU countries (Agricultural Statistics and Indicators, 2019).

After the crisis of 2009, the incomes of members-owners of farming husbandries in the European Union almost equaled to the average wage of workers employed in agriculture. This is particularly relevant, given the fact that the farmer is not only an employee but also the owner of an agricultural enterprise (by that he receives an additional income from the activity).

Providing proper reimbursement of the cost of self-employment is the basis for justifying the expediency of the further existence of any family enterprise, including farm. In this aspect, it should be noted that there are differences in the activities of farmers in different countries, due to the specific features of their industry.

Thus, the highest level of income is shown by farms in Denmark, the Netherlands and Luxembourg. According to analysts, this fact is due to the high level of specialization of production, as well as the concentration of farmers in the production of grain and fruit crops (in crop production), and the development of dairy and pig farms (in livestock). The lowest figures are shown by farms in Poland, Croatia, Romania and Slovenia, where small mixed organizational forms of agricultural production dominate (Agricultural statistics and indicators, 2019).

The problem of ensuring the development of small forms of agrarian production in Ukraine has a rather long history and is closely connected to the development of family business in agriculture. Thus, A.M. Chelyntsev, analyzing the level of rural farms activity in the early nineteenth century, noted significant progressive trends in the level of technical and technological support. He noted, however, the fact that there was a clear correlation between the welfare of the rural population and the productivity of this group of farmers (Chelyntsev, 2012).

This fact is confirmed by the results of F. Pourshahabi, who noticed the influence of socioeconomic determinants on the nature of the rural households consumption in Africa is modelled. In particular, a close correla-

tion between the level of consumption, the degree of well-being and the general nature of socio-economic development has been proved (Pourshahabi *et al.*, 2010).

Narotzky (2016) has analyzed the evolutionary process of development for the rural form of agricultural production in Ukraine, noted the non-constructive nature of the behaviour of government institutions, manifested in the systemic transformation of the agrarian sector, without taking into account interests of rural inhabitants. The practice of state interference in economic and social processes in the countryside during the twentieth century, that only proves agrarians of their secondary importance in relation to industries.

It should be noted that the problem of ensuring an effective cooperation between representatives of small-scale agrarian enterprises and regional government institutions is universal and remains unresolved until now. Thus, analyzing the nature of the relationship between village officials and rural inhabitants in the North Sumatra province, Badaruddin indicates a low level of professional qualifications for civil servants. At the same time, some rural inhabitants hope for the possible positive impact of changes in the legal framework on their own welfare (Badaruddin *et al.*, 2017).

We share the opinion of Yavorska (2012) about the necessity of a differential approach to the area of agrarian production, which was called “small forms”. It includes both commodity-type farms that are classical entity of agrarian entrepreneurship and rural households, where agricultural products are created to meet their own food needs.

In Ukraine, small forms of agricultural production include farm and private rural farms characterized by specific socio-economic conditions of development. At the present stage of the development of agrarian industry in Ukraine, there are more than 33 thousand farms that are growing and increasing production. In 2017, their number decreased by 19% compared to 2010 (Table 1).

Table 1. Dynamics of development of rural farms in Ukraine

| Indicator | Year | | | | 2017 in % until 2010 |
|---|--------|--------|--------|--------|-------------------------|
| | 2010 | 2012 | 2014 | 2017 | |
| Farming husbandries (FG) | | | | | |
| Quantity of FG, units | 41524 | 34035 | 33084 | 33682 | 81.1 |
| Area of rural land, thousand hectares | 4540.4 | 4389.4 | 4578.3 | 4437.9 | 97.7 |
| Value of gross output at prices of 2010, bln. EUR | 11726 | 13906 | 19189 | 22104 | 188.5 |
| Profit, bln. EUR | 2626.2 | 3914.4 | 5569.4 | 6652.1 | 253.3 |
| Profitability of all activity, % | 32.4 | 27.8 | 29.6 | 35.4 | 3.0 |
| Individual farms | | | | | |
| Number of farms, thousand units | 4540.4 | 4301.8 | 4136.8 | 4075.4 | 89.8 |
| including with an area above 5 ha | 99.2 | 91.7 | 87.2 | 89.8 | 90.5 |
| Area of rural land – in total, thousand hectares | 6655.4 | 6501.0 | 6296.5 | 6268.0 | 94.2 |
| Value of gross output at prices of 2010, bln. EUR | 96734 | 106518 | 112369 | 109522 | 113.2 |

Source: authors. calculations based to “Agriculture of Ukraine 2017: Statistical yearbook” (Prokopenko, 2018).

Farmers should provide optimal production volumes to achieve the high efficiency of individual industries, the rational use of labour resources, and the main means of production. Rational sizes of farms depend primarily on their industrial specialization and, to a lesser extent, on zonal climatic conditions. The experience of Western European countries shows that the production efficiency is much higher if the land use exceeds 100 hectares, in the USA 400 hectares (in Ukraine, the average size of a farm in 2017 amounted to 137.1 hectares of agricultural land).

The differentiation of small business participants, along with the strengthening of the middle class, is gradually taking place in Ukraine. Small entrepreneurship based on personal households of the population unites those groups of society that have the greatest resource potential and are interested in the liberalization of socio-economic relations. Private rural farms involve a share of labour released from agricultural enterprises, which counteract the growth of unemployment in the countryside. The majority of population employed in agriculture work in these farms (3934 thousand people in Ukraine, or 58.7% of all people employed in agricultural production). An important task of state policy is to improve working conditions in private rural farms and to increase the level of technical equipment of the latter as a decisive factor in their effective management.

According to the results of a comparative analysis of the production efficiency for the main types of agricultural products in various segments of agriculture, the small-scale sector has a significant potential for development in an aggressive business environment. At the same time, it should be noted that there are certain shortcomings in the organization of agricultural production.

On the one hand, absence of employees and a set of commitments to the budget allows households to use

their own material more easily, as well as labor and financial resources, and to reduce the size of cash costs for production. At the same time, the actual absence of official representation of farms among state program objects to ensure the development of domestic agricultural industry negatively affects the level of competitiveness in this segment of agrarian production.

3.2 Characteristics of the Crop Industry

The lack of proper technical and technological support for production processes, especially in livestock production, negatively affects the level of efficiency of available resource potential in rural households. They show better results of grain crops production than the agricultural enterprises of Ukraine in general and farms in particular (Table 2).

By the price factor, 1 quintal of sold products accounts for 2.04 EUR of conditional net income, which is less than the similar indicator for agricultural enterprises of Ukraine and farms by 0.47 and 0.55 EUR, respectively. The conditional level of profitability is 20.2%, which is less than similar indicators for large-scale production of Ukraine as a whole and for farms, in particular, at 4.8 and 7.7 points, respectively.

The resource component of the technical support for the vast majority of rural inhabitants is outdated. Most of the farmers are not able to buy new equipment, as the state does not work with individuals to provide concessional loans related to the development of agricultural production. Most farmers do not adhere to the requirements of process flow charts for rotation of crops, since the existing land does not allow for full field crop rotation. In the course of the survey, it was found that the majority of farmers rarely use plant protection products, which, in turn, affects yields in a negative way.

Table 2. Comparative characteristic of grain crop production efficiency in agricultural enterprises and private farms

| No | Indicators | Individual farms* | Agricultural enterprises | | Private rural farms to agricultural enterprises, (+ -) | |
|-----|--|-------------------|--------------------------|---------------------------------|--|-------------------------------|
| | | | In total** | including farming husbandries** | In total | including farming husbandries |
| 1. | Cost for 1 quintal, EUR | 11.44 | 12.57 | 11.86 | -1.13 | -0.42 |
| 2. | Accounts for 1 quintal of sold products, EUR: | | | | | |
| 2.1 | - production costs | 7.86 | 9.15 | 8.54 | -1.29 | -0.68 |
| 2.2 | - salary (conditional salary) | 1.53 | 0.91 | 0.73 | 0.62 | 0.8 |
| 2.3 | - gross income (p.1-p.2.1) | 3.58 | 3.42 | 3.32 | 0.16 | 0.26 |
| 2.4 | - net income (conditional net income) (p.2.3-p.2.2) | 2.04 | 2.51 | 2.59 | -0.47 | -0.55 |
| 3. | Level of profitability (the conditional level of profitability), % (p.2.4 / (p.2.1 + p.2.2)) x 100 | 20.2 | 25 | 27.9 | -4.8 | -7.7 |

* according to the results of the sample survey

** based on data from the State Statistics Service of Ukraine (State Statistics Service of Ukraine).

Table 3. Comparative characteristic of sunflower production efficiency in agricultural enterprises and private farms

| No | Indicators | Individual farms* | Agricultural enterprises | | Private rural farms to agricultural enterprises, (+ -) | |
|-----|---|-------------------|--------------------------|---------------------------------|--|---------------------------------|
| | | | In total** | including farming husbandries** | In total** | including farming husbandries** |
| 1. | Cost for 1 quintal, EUR | 26.9 | 30.4 | 28.4 | -3.6 | -1.5 |
| 2. | Accounts for 1 quintal of sold products, EUR: | | | | | |
| 2.1 | - production costs | 14.2 | 20.1 | 19 | -5.9 | -4.8 |
| 2.2 | - salary (conditional salary) | 0.3 | 1.4 | 1.1 | -13.3 | -14.4 |
| 2.3 | - gross income (p.1-p.2.1) | 12.7 | 10.3 | 9.4 | 2.3 | 3.3 |
| 2.4 | - net income (conditional net income) (p.2.3-p.2.2) | 12.4 | 8.9 | 8.3 | 15.6 | 17.7 |
| 3. | Level of profitability (the conditional level of profitability),% (p.2.4 / (p.2.1 + p.2.2)) x 100 | 89.2 | 41.3 | 41.2 | 47.9 | 48 |

* according to the results of the sample survey

** based on data from the State Statistics Service of Ukraine (State Statistics Service of Ukraine).

The same situation is observed with the production of sunflower. Due to lower production costs, as well as labor costs, the conventional net income per 1 quintal of sold products in private farms is 12.4 EUR, and the conditional level of profitability is 89.2% (Table 3).

Similar indicators for agricultural enterprises of Ukraine and farms make up 8.9 EUR and 8.3 EUR and 41.3 and 41.2% respectively. On one hand, this situation displays a higher economic efficiency of sunflower seeds production for private farms, which positively affects the well-being of farmers.

At the same time comparatively (to wheat production) high return on the spent resources including land, covers the danger of a possible mass reorientation of private farms for the production of technical crops, in particular, sunflower seeds. This trend has negative consequences for domestic soils, given the high demand in European

countries for technical crops, as well as lack of technologies for proper control of the agricultural land in Ukraine.

The vast majority of private farms members do not use crop rotation and keep growing sunflower in one territory for several years in a row. In addition, application of technical means does not give basis for innovative development of the industry. They mostly use old tractors and combines, with 80% of them taken from enterprises of medium and large agribusiness. This practice contains danger, since at this stage there are practically no mechanisms to provide agricultural labor resources to representatives of the small-scale agricultural sector.

The state of fruit production in the region has specific features, namely the favorable natural and climatic conditions for the cultivation of fruit trees, the harvest of which has a stable demand and is characterized by a high price (cherry, peach, apricot, etc.). It should also be noted

Table 4. Comparative characteristic of fruit production efficiency in agricultural enterprises and private farms

| No | Indicators | Individual farms * | Agricultural enterprises | | Private rural farms to agricultural enterprises, (+ -) | |
|-----|---|--------------------|--------------------------|---------------------------------|--|---------------------------------|
| | | | In total** | including farming husbandries** | In total** | including farming husbandries** |
| 1. | Cost for 1 quintal, EUR | 44.19 | 29.22 | 31.2 | 14.97 | 12.99 |
| 2. | Accounts for 1 quintal of sold products, EUR: | | | | | |
| 2.1 | - production costs | 13.21 | 15.43 | 12.34 | -2.22 | 0.87 |
| 2.2 | - salary (conditional salary) | 10.3 | 6.11 | 10.56 | 4.19 | -0.26 |
| 2.3 | - gross income (p.1-p.2.1) | 30.98 | 13.79 | 18.86 | 17.19 | 12.12 |
| 2.4 | - net income (conditional net income) (p.2.3-p.2.2) | 20.68 | 7.68 | 8.3 | 13 | 12.38 |
| 3. | Level of profitability (the conditional level of profitability),% (p.2.4 / (p.2.1 + p.2.2)) x 100 | 88.2 | 35.4 | 36.1 | 52.8 | 52.1 |

* according to the results of the sample survey.

** based on data from the State Statistics Service of Ukraine (State Statistics Service of Ukraine).

that there is an extensive communication system that enables the efficient operation of small-scale wholesale markets in the region.

At the same time, the production activity of agricultural enterprises in this area grows rather slowly; the products grown have worse quality, which affects its market price (Table 4).

As a result, for 1 quintal of sold products the Individual farms receive 13 EUR more profit than agricultural enterprises, and the level of profitability, even in the case of significant labour expenses (more than 50% of the total cost of labour costs), is 88.2%. However, we cannot say that the established situation is satisfactory for individual farms under several circumstances. The vast majority of farms do not use technological equipment in growing fruit and berry products, prefer using manual labour.

A wholesale agricultural market of the regional level in the process of market price formation the real volumes of demand and supply for these types of products are determined, should become an incentive for farmers to use machinery actively. However, due to lack of this object of market infrastructure, farmers have to contact small intermediaries, since it is not capable of forming a wholesale lot of products on the garden area of 0.2 hectares.

At the same time, low level of procurement prices in the regional processing enterprises makes this sale channel unattractive for the vast majority of small commodity producers who are trying to benefit not from the quantity of products but due to the high price for its quality. Although agricultural enterprises cannot compete with farming households in this segment of the market, we believe that this is not a reason to refuse the evolution of private farms to a qualitatively new level of organization of production of fruit and berry products.

We agree with the opinion of Kalchenko (2013) on the necessity of scientific substantiation of the develop-

ment of the fruit and vegetable industry in the system of private farms. One of such directions is creating cooperative associations based on the subjects of the small-scale sector involved in the production of fruit and berry crops (Kalchenko, 2013). It should be aimed at consolidation of existing resource potential of farmers for the further provision of services in the field of sales and mechanized carrying out of appropriate technological operations (soil cultivation, deposition, etc.).

3.3 Characteristics of the Livestock Industry

The state of livestock functioning in farming households has fundamental differences, due to the peculiarities of production process in the small-scale sector, as well as the general tendencies of the corresponding branch development in the scale of the agro-industrial complex. In particular, that relates to the high proportion of manual labour, as well as the predominantly consumer nature of the use of cultivated products in farming households. Under these conditions, even relatively small production costs cannot correct the overall loss-making nature of livestock in the personal sector.

In addition, organization of livestock production in individual farms also has sectoral differences, determined by the necessity of having buildings for keeping livestock, walking areas, their own forage base, etc. Using self-adapted industrial facilities for production needs, farmers cannot achieve the proper results. As a result, 1 quintal of beef in private farms accounts for 245.4 EUR of conventional wages, which exceeds similar indicators of agricultural enterprises and farms by 5 times (Table 5).

The vast majority of products are sold by the farmers or to the end user, or the small wholesale intermediary, which determines the prices higher than those of the processing enterprises. However, due to these technologi-

cal problems in the organization of the production process, higher selling prices (compared to the agricultural enterprises of Ukraine and farms more than 2 times) do not allow to receive positive financial results. Conditional net income is -92.5 euros/quintal, and conditional profitability – (-28.6%).

Therefore, the main direction of development of the industry in private farms should belong to updating of technical and technological support. The production of milk in farming households has the same characteristics as beef production, namely the high proportion of manual labour in production operations, more favorable price conditions. At the same time, the performance indicators are worse than in agricultural enterprises (Table 6).

In particular, 1 quintal of the products sold is accounted for about 1.2 EUR of damage compared to 5.1 EUR/quintal of profit on agricultural enterprises in

Ukraine and 4.4 EUR /quintal of the farm's profit. As a result, the level of profitability (loss-making) makes respectively for private farms (-4.3%), for agricultural enterprises – 26.9%, and for farms – 25.9%.

The difference between data on agricultural enterprises and farms is due to the lack of proper forage base for mass development of dairy cattle breeding. Therefore, the production of milk in private farms is mostly consumer-oriented, when 50% of overall milk production is for sale. The practice of creating milk cooperatives has not become a trend yet.

We share the opinion of O. Varchenko, I. Svytnous, Y. Grynychuk, K. Tkachenko, and O.A. Shust on the strategic importance of the dairy industry as a component of the agricultural production, as well as the special role of private farms in the formation of the raw material base for the further functioning of dairy processing enterprises

Table 5. Comparative characteristic of the cattle meat production efficiency in agricultural enterprises and private farms

| No | Indicators | Individual farms* | Agricultural enterprises | | Private rural farms to agricultural enterprises, (+ -) | |
|-----|---|-------------------|--------------------------|---------------------------------|--|---------------------------------|
| | | | In total** | including farming husbandries** | In total** | including farming husbandries** |
| 1. | Cost for 1 quintal, EUR | 230.7 | 106.1 | 108.7 | 124.5 | 122 |
| 2. | Accounts for 1 quintal of sold products, EUR: | | | | | |
| 2.1 | - production costs | 77.8 | 106.4 | 111 | -28.6 | -33.2 |
| 2.2 | - salary (conditional salary) | 245.4 | 50.4 | 56.1 | 195 | 189.3 |
| 2.3 | - gross income (p.1-p.2.1) | 152.9 | 55.7 | 52.6 | 971 | 100.3 |
| 2.4 | - net income (conditional net income) (p.2.3-p.2.2) | -92.5 | 5.3 | -3.5 | -97.9 | -89 |
| 3. | Level of profitability (the conditional level of profitability),% (p.2.4 / (p.2.1 + p.2.2)) x 100 | -28.6 | 3.4 | -2.1 | -32 | -26.5 |

* according to the results of the sample survey

** based on data from the State Statistics Service of Ukraine (State Statistics Service of Ukraine).

Table 6. Comparative characteristic of milk production efficiency in agricultural enterprises and private farms

| No | Indicators | Individual farms* | Agricultural enterprises | | Private rural farms to agricultural enterprises, (+ -) | |
|-----|---|-------------------|--------------------------|---------------------------------|--|---------------------------------|
| | | | In total** | including farming husbandries** | In total** | including farming husbandries** |
| 1. | Cost for 1 quintal, EUR | 26.3 | 24.1 | 21.3 | 2.2 | 5 |
| 2. | Accounts for 1 quintal of sold products, EUR: | | | | | |
| 2.1 | - production costs | 15.4 | 13.1 | 11.2 | 2.3 | 4.2 |
| 2.2 | - salary (conditional salary) | 12.1 | 5.9 | 5.7 | 6.2 | 6.4 |
| 2.3 | - gross income (p.1-p.2.1) | 10.9 | 11 | 10.1 | -0.1 | 0.8 |
| 2.4 | - net income (conditional net income) (p.2.3-p.2.2) | -1.2 | 5.1 | 4.4 | -6.3 | -5.6 |
| 3. | Level of profitability (the conditional level of profitability),% (p.2.4 / (p.2.1 + p.2.2)) x 100 | -4.3 | 26.9 | 25.9 | -31.2 | -30.2 |

* according to the results of the sample survey

** based on data from the State Statistics Service of Ukraine (State Statistics Service of Ukraine).

Table 7. Comparative characteristic of eggs production efficiency in agricultural enterprises and private farms

| No | Indicators | Individual farms * | Agricultural enterprises | | Private rural farms to agricultural enterprises, (+ -) | |
|-----|---|--------------------|--------------------------|---------------------------------|--|---------------------------------|
| | | | In total** | including farming husbandries** | In total** | including farming husbandries** |
| 1. | Cost for 1 quintal, EUR | 6.7 | 3.8 | 3.4 | 2.8 | 3.3 |
| 2. | Accounts for 1 quintal of sold products, EUR: | | | | | |
| 2.1 | - production costs | 8.2 | 3.1 | 1.6 | 5.1 | 6.6 |
| 2.2 | - salary (conditional salary) | 3.1 | 1.1 | 1.4 | 2 | 1.7 |
| 2.3 | - gross income (p.1-p.2.1) | -1.5 | 0.7 | 1.8 | -2.3 | -3.3 |
| 2.4 | - net income (conditional net income) (p.2.3-p.2.2) | -4.6 | -0.4 | 0.4 | -4.3 | -5 |
| 3. | Level of profitability (the conditional level of profitability),% (p.2.4 / (p.2.1 + p.2.2)) x 100 | -41.1 | -9 | 14.1 | -32.1 | -55.2 |

* according to the results of the sample survey

** based on data from the State Statistics Service of Ukraine (State Statistics Service of Ukraine).

(Varchenko *et al.*, 2018). At the same time, we should note the low level of scientific substantiation for the production and economic activity of individual peasant farms, since in the overwhelming majority the production process is carried out in an “artisanal” way.

A positive example of solving this problem is the result of the research performed for the scientific and educational center “Institute of Agrarian Economics” of the National Academy of Agrarian Sciences of Ukraine. In particular, they developed a model of family dairy farm of 50 stock with a justification of costs, based on the farmer's ability to build a new building or to reconstruct existing buildings (Lupenko *et al.*, 2014). The practical realization of this project allows to perform the milk production on the basis of mechanization, which increases the level of using the resource potential.

The specifics of the poultry farming operation in the small-scale agricultural production sector is, on the one hand, an opportunity for the general population to engage in this type of activity, comparing the ease of its organization at home. However, at the same time, poultry farming itself is the most developed and successfully functioning branch of domestic livestock breeding.

Due to the organization of industrial production on the basis of modern technical and technological means, agricultural enterprises were able to reduce the cost per unit of egg production. Household products are more qualitative in terms of food characteristics, but have a higher price.

As a result, poultry production in the small-scale sector is primarily intended for self-sufficiency, although it has more favorable price conditions. In agricultural enterprises of Ukraine, for 1000 eggs sold there is a loss of 0.4 EUR, and a loss-making level of -9%. At the same time, similar indicators for private farms are 4.6 EUR/quintal of damage and 41.1% of loss-ratio (Table 7). As we see, the situation in poultry farming is ambiguous.

On the one hand, domination of agricultural enterprises in the market at the expense of the industrial method of production is obvious, since private farms cannot compete in this segment.

At the same time, products of private farms in this direction have consumers who prefer natural goods of high quality. In this regard, we think that the development of commercial poultry farming in the individual farms is a promising direction, but requires a scientifically sound organization of the production process, the mandatory availability of own grain feeds, detailed market research, population needs and the level of consumer demand for this product.

4. CONCLUSIONS

The article analyzes the peculiarities of using the resource potential of rural farms in Ukraine. The main tendencies in the development of family forms of agrarian production in the countries of the European Union are highlighted. The necessity of applying a combined approach to evaluate the performance of rural farms has been proved. In the work, we performed a comparative analysis of the efficiency of agricultural production in the crop and livestock sectors between the individual farms and agricultural enterprises of Ukraine, including farmers. The main factors restraining the effective development of farms in the country are highlighted.

At the same time, in our opinion, there is a need in further research of economic and social aspects of farm activities, in particular the level of efficiency for the available resource potential usage, as well as the degree of material motivation for owners to participate in their activities. In the future, the results of the study will be used to develop a regional program for the promotion of

small-scale agrarian entrepreneurship. In particular, based on the calculations made by the local authorities, forecasting of the prospects for further functioning of the farms and their impact on the regional market of agricultural raw materials will be carried out.

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