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## **ECONOMIC EFFICIENCY EVALUATION OF MILK PRODUCTION IN UKRAINE**

**Annotation:** Dairy is the one of the most important branch in the Ukrainian food industry. It can be proved by economic potential of dairy products and by the need of manufacturing food for consumption for the population. The current financial position of the dairy industry in Ukraine provides us a clear vision of positive prospects at the industry. Also it shows the efficiency improvement of enterprises that specialize in production, marketing and processing of milk and dairy products.

**Key words:** economic efficiency, milk production.

In recent years the situation of the dairy farming in Ukraine is characterized by preserving a minimum level of profitability and deceleration of negative processes of reducing the number of cows and milk production.

In the domestic agribusiness during a long period of time milk production considered economically inefficient because of its high losses and low cost recovery.

There are different facts what have direct influence on trends in recent years. First of all it's hard to provide the competitive advantages in milk

production because of high selling prices, as well as profitability depends on the cost of production.

Also there is another important trend. In recent years the dynamic of the livestock population number was more independent from fluctuations in the level of profitability of milk production, what means it became more resistant to market conditions.

Production efficiency characterizes the impact and effectiveness of production. It reflects not only the increase of production. Also it shows by what price and costs of resources were achieved this increase. It is the evidence of the quality of economic growth.

For economic efficiency determination we need to examine results of production and sales. Also it's important to analyze costs, selling prices and profitability.

Table 1 reflects the sales results of milk in 2014-2016. The number of sales increased only by 2.5% in 2016 compared to 2014. This means the demand for products has increased just slightly. At the same time the production costs have increased by 35%. Nevertheless the profit increased in 3.2 times, because the selling prices for products were growing up every year (in 2016 compared to 2014 prices increased in 1.5 times). Also profitability increased by 7.2 points in 2016 compared to 2014.

Table 1

The sales results of milk in 2014-2016

	2014	2015	2016	2016 to 2014, %
Number of sales, thsd. tones	2446.7	2502.9	2507.9	102.5
The full cost of production, thsd. UAH	8031953	8832734	10844191	135.0
Net income (revenue), thsd. UAH	8918487	10883860	13697648	in 1.5 times
Profit (loss) thsd. UAH	886534	2051126	2853457	in 3.2 times
Per 1 hundredweight of products: - the total cost, UAH	328.3	352.9	432.8	131.8

- the average selling price, UAH	364.5	434.9	546.9	in 1.5 times
The level of profitability (loss), %	11.2	12.6	18.4	+7.2

Source: developed by the author according to the State Statistics Service of Ukraine

The state and development of the dairy industry depends on the method of companies functioning, what are producing milk, which technique is used, is cost of production high, is there an opportunity to sell products.

The cost index has considerable impact on the profitability of milk production. Today it is one of the most important indicator of products competitiveness in the market along with the selling price. That means it requires additional attention.

The cost depends on production costs. Every year they grow in large quantities. In 2015 the cost of milk production in Ukraine amounted to 9,232,760.6 thsd. UAH, what is significantly more than in previous years. In 2014, costs were 7,747,341.8 thsd. USD and in 2013 - 6,758,362 thsd. USD.

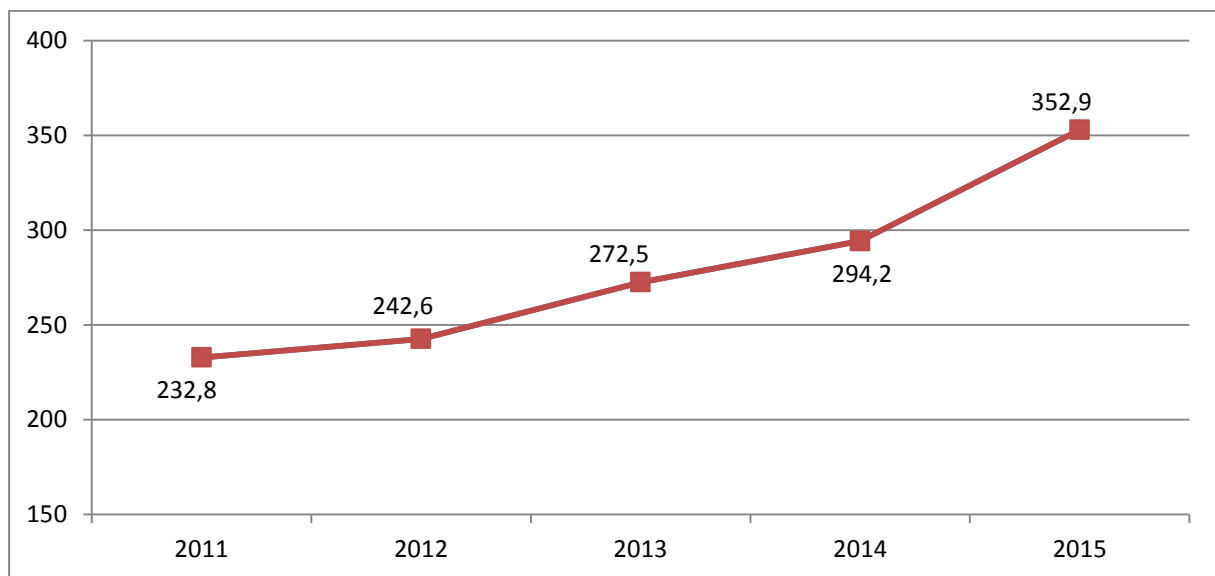


Figure 1. The production costs of milk in 2011-2015, UAH/ hundredweight

Source: developed by the author according to the State Statistics Service of Ukraine

Due to the figure 1 we can conclude that production costs of 1 hundredweight of milk increased in 1.5 times over the last 5 years. Because of this sales prices increased too.

The cost of feed unit is one of the important factors of competitiveness of milk production. Creation of a strong forage and organization of complete balanced animal nutrition is one of the main factors that can solve the problem with high costs of feed in Ukraine. The feed costs for production of 1 hundredweight of milk in recent years reduced (figure 2).

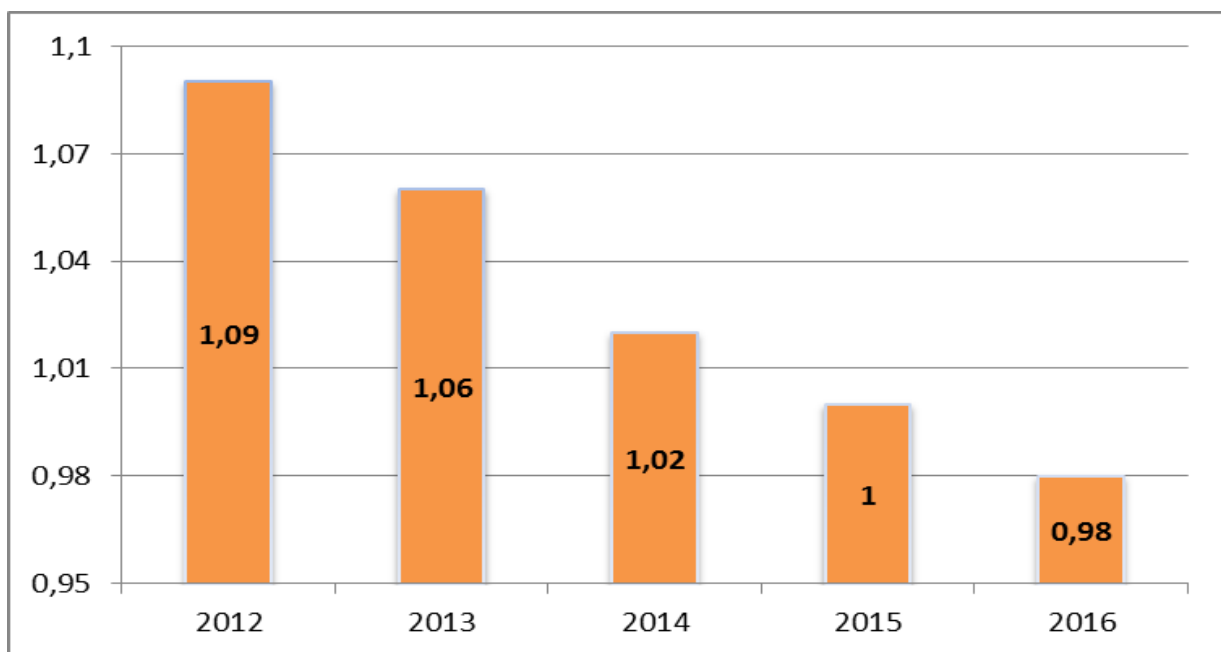


Figure 2. The feed costs for 1 hundredweight milk production, hundredweight feed units

Source: developed by the author according to the State Statistics Service of Ukraine

The problems that exist in the dairy industry could be overcome only through the use of new approaches to intensification. It can be done by improving the usefulness of cows feeding, by implementation of innovative technology and competitive forms of production.

Strong forage, feeding level and usefulness determine milk production of cows by 70-80% if all conditions and technology are met. Therefore, for competitive milk production first of all is necessary to ensure the fodder production and animals feeding by balanced food with all nutrients and macro- and micronutrients.

Meanwhile the price of products is also very important factor that affects on the economic efficiency of milk production.

The process of pricing for raw milk in Ukraine depends not only on customers and their purchasing power. Global trends indicate that demand and prices for raw milk in the future will grow. All this certainly effects on the price of milk in the domestic market.

One of the development indicators of dairy industry is favorable price situation. Prices for raw milk in Ukraine are influenced by three main factors: the demand from dairy enterprises, seasonal production, changes of fixed costs that form the cost of raw milk for producers and for processing enterprises.

In 2012 government approved the minimum price for milk. In Regulation № 807 from 22 August 2012 "About approval of the minimum level for milk prices in 2012" there was adopted minimum acceptable level of prices in UAH per 1 tone (excluding VAT) for whole milk (not undergone any treatment, processing or packaging for the purposes of resale) of the second grade at a rate of 2200 UAH/ tone. Active effect of this Regulation gave an opportunity to increase purchase prices for household producers by the end of the year. Fortunately this trend continued in the future [2].

In the annex to this in 2015 the Parliament adopted the Law of Ukraine "About Amendments to the Law of Ukraine" About milk and milk products " due to state regulation of the purchase price for milk and the support of the village". There was approved that the state to 31 March 2016 sets a minimum level of purchase prices for raw whole milk commodity second class for 4 UAH/ kg (excluding VAT). Also according to this law every year from 1 April, the

Cabinet of Ministers of Ukraine on the proposal of the central executive body sets for the next 12 months a minimum level of purchase prices for milk raw commodity milk second class per kilogram (excluding VAT) [3].

In 2012-2016 purchase prices for milk from enterprises of all categories marked by extreme changes (figure 3).

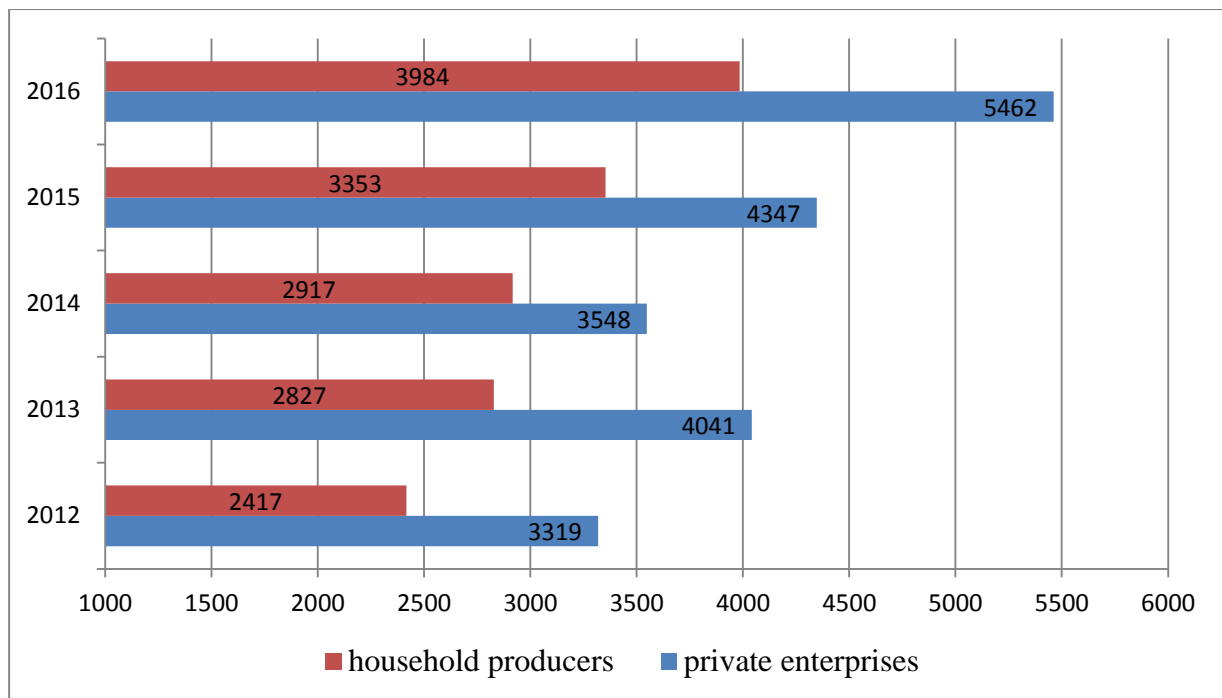


Figure 3. Dynamics of changes in purchase prices for milk in 2012-2016, UAH/ tone

Source: developed by the author according to the State Statistics Service of Ukraine

Data at figure 3 show us that purchase prices in households increased. After the adoption of Regulation № 807 from 22 August 2012 prices started to rise and accounted for more than 2.2 thsd./ tone. And after enactment the Law of Ukraine "About Amendments to the Law of Ukraine" About milk and milk products " due to state regulation of the purchase price for milk and the support of the village" in 2016 prices were almost 4 thsd. UAH/ t. Purchase prices of milk in private enterprises in recent years also continue to grow.

According to the information from Ministry of Agriculture and Food in 2016 the average purchase price for milk of I class produced in enterprises was 5.55 thsd. USD/ tone, of the second grade – 4.48 thsd. USD/ tone. The lowest price for milk of 1 class was in Kirovohrad and Chernihiv regions (4.5 thsd. UAH/ tone), and the highest - in Zakarpathia (7.2 thsd. UAH/ tone). The average price for milk of II grade by region ranged from 3.1-4.0 thsd. USD/ tone (in Odesa, Ternopil, Chernivtsi and Chernihiv regions) to 4,6-5,3 thsd. UAH/ tone (in Vinnitsa, Poltava, Zaporozhye and Kharkiv regions) [4].

Milk production in Ukraine could be one of the most profitable types of agribusiness, but it is a long process that requires large investments. First of all investments should be directed into the reconstruction of facilities, improving the species composition of herds of cattle, compliance with all requirements of technology content, updating milking equipment and acquisition modern equipment to ensure balanced animal feed.

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