

EFFECTIVENESS OF MILK PROCESSING UNDER venture manufacturer of raw milk

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The paper proposed technological schemes of dairy products that are embedded in teaching and production unit PF NUBiP Ukraine "Crimean Agrotechnical University" by creating educational, scientific and industrial livestock complex, as well as educational and technological laboratories dairy.

Raw milk, dairy products, livestock animals, cost, profit.

Problem. Key financial problems related to agricultural production in that it is a raw material appendage processing food industry. This income from the sale of food absorbed recyclable food industry, and the calculations are carried out with farmers on the final principle. In order to reduce the cost of food and ensure the continuation of their shelf life, food

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Industry often goes to the issue of surrogate different products, which is unacceptable to preserve health. In this context, the problem of value of production and processing of products in terms of agricultural production is such that deserves constant attention, especially when changing economic conditions of doing business.

Analysis of recent research. Our studies have shown that dairy production lines the most important part of the energy costs make thermal processes [1].

Research [2] the dependence of economic efficiency of dairy on the characteristics and conditions of a particular company, and range of dairy products produced.

In the data presented in [3] indicated the dependence of the finished dairy products meet the requirements of the appropriate standard to process, including the parameters of thermal processes.

In [4], the factors that determine the efficiency of milk and dairy products, and the impact on the performance of energy.

Condition market in milk and milk products Ukraine and the main factors affecting the economic situation of the country's milk production is analyzed in [5].

The proposed flowsheet dairy implemented in teaching and production unit NUBiP PF "Crimean Agrotechnical University" by creating educational, scientific production livestock sector, which includes farm

livestock cattle on 1,000 head of dairy cattle, as well as educational and technological laboratory (STL) processing of milk and dairy products.

STL milk processing - a structural link teaching and experimental research and production livestock complex operating under the "Animal products from the farm - to table the consumer."

The purpose of research - compare the economic performance of the agricultural enterprise, which keeps dairy farm and sells raw milk or dairy products are prepared.

Results. Agricultural enterprises usually sells raw milk processors. In the case of milk processing and sales of dairy products the most common variants of the following:

- processing of raw milk to produce butter and milk pasteurized normalized (Fig. 1);

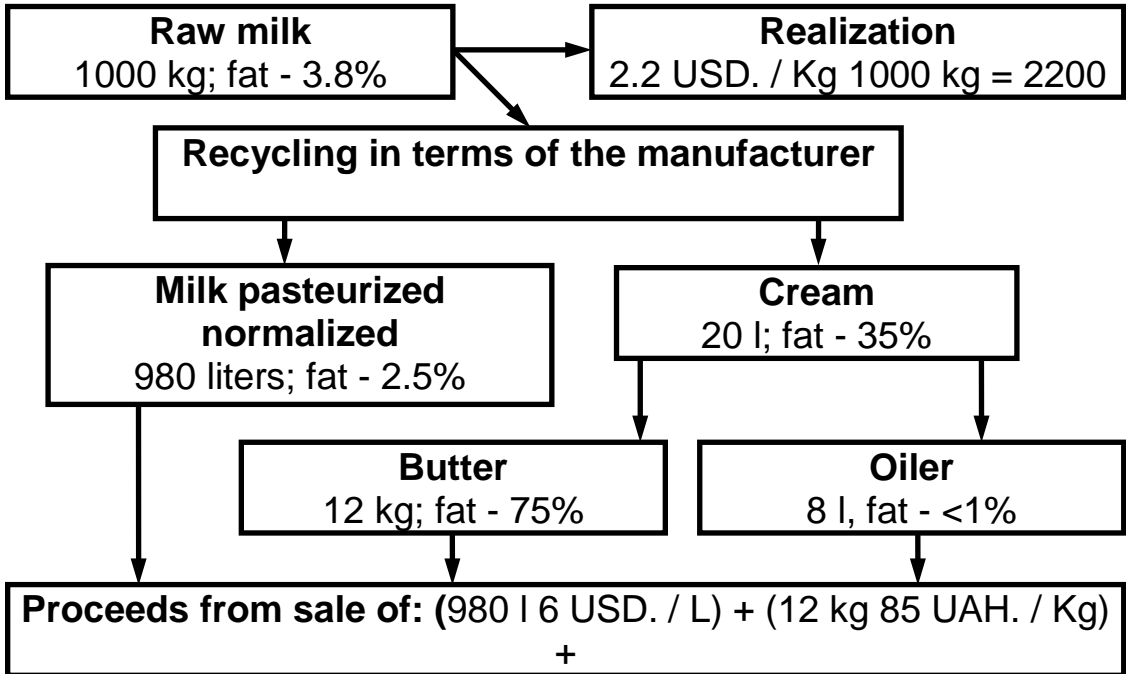
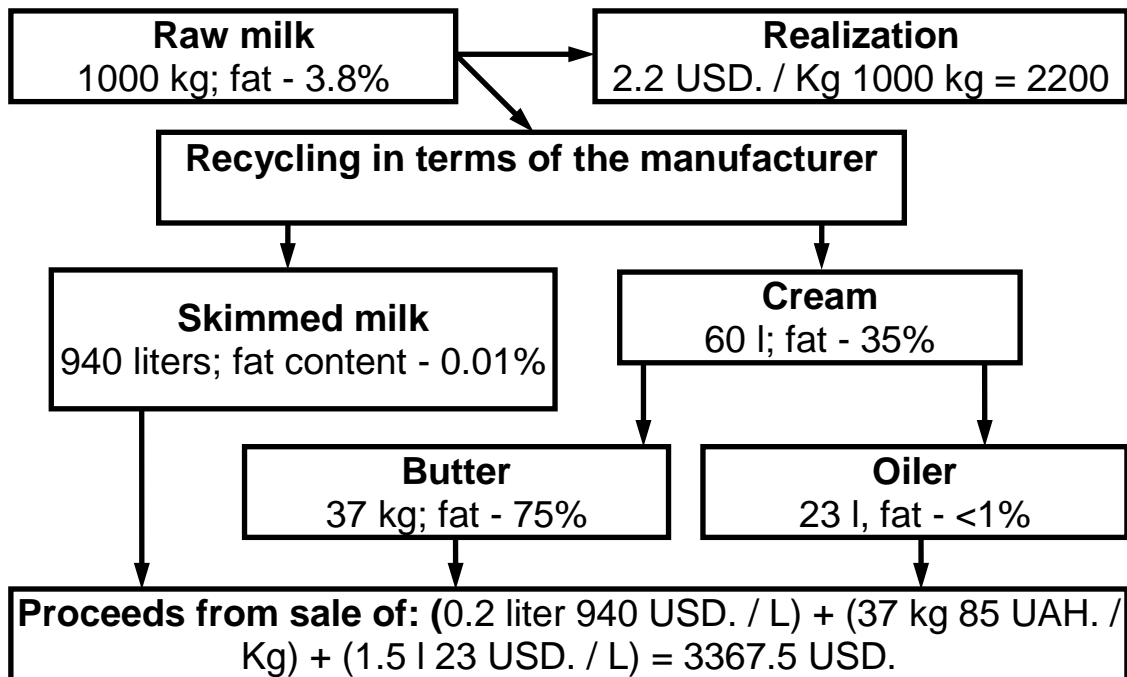


Fig. 1. Scheme of processing raw milk to give an oil butter and pasteurized milk (by-product, buttermilk).

- processing of raw milk to produce cheese and butter (Fig. 2);

– processing of raw milk to produce butter (Fig. 4).

Fig. 4. Scheme of processing raw milk to produce butter (by-



products, skimmed milk and buttermilk).

Evaluating the effectiveness of these options was conducted per ton of milk, whereas the average purchase price for raw milk in Ukraine - 2.2 USD. / Kg. Proceeds from sales determined by known expression as a sum of products of the number of sales and its realizable wholesale prices. Income was defined as the difference between the proceeds from the sale of products and their cost. The value of the cost of raw milk farmers depends on the size, number of animals, the availability of land for fodder crops, the amount of main feed.

According to reports farms value the cost of raw milk at this time is from 1.45 USD. / Kg to 1.85 USD. / Kg. To calculate the average value taken 1.65 USD. / Kg. Thus the profit from the production of raw milk will be 550 USD. per tonne of milk.

In the calculation were taken into account wholesale price without trade margin as of 04/01/2014 p., Which were:

- pasteurized milk normalized packed (box "PAC" and a capacity of 1 0.5 l), 2.5% fat - 6 USD. / L;
- yogurt (package "PAC" capacity 0.5 l), 1% fat - 8 USD. / L;
- Cheese, 9% fat - 24 UAH. / kg;
- butter, 75% fat - 85 UAH. / kg;
- by-products: Serum - 0.5 USD. / l, buttermilk - 1.5 USD. / l.

The cost of processing raw milk per kilogram for the processing plant and equipment which operates on electric power price includes consumables - 0.18 UAH. / Kg; the cost of electricity - 0.47 UAH. / kg;

wage workers - 0,008 USD. / kg; Depreciation of equipment during milk processing - 0.0002 UAH. / kg; other expenses, including transportation - 0.12 UAH. / kg. Thus, the cost of processing raw milk per kilogram for the processing plant is - 0.7782 UAH. / Kg or 778.2 USD. / T. Further calculations will perform under the assumption that the cost is the same for the production of plant above the range of dairy products to the exact circuit processing of raw milk.

In this case, income from the sale of dairy products under the scheme will be 1 4483.8 USD. / Vol., Scheme 2 - 3701.8 UAH. / T, scheme 3 - 7617.3 UAH. / T, scheme 4 - 939 3 USD. / t.

These calculations show that the most profitable is the production of yogurt and butter. Lower the profitability of milk pasteurized normalized and butter. This is followed by cheese and butter, and the lowest level of profitability is the manufacturer if the processing of raw milk to butter. As for normal dairy enterprises above the range of products is necessary to ensure stable operation, the company should work, given all of the above options for production. Thus the average income will be 4185.55 USD. / T.

For determining the efficiency of application of the technology in terms of milk processing company producer of milk, we use the method of determining the economic effects of the proposed technical and technological solutions. You must define the required capital investment in the proposed project. The cost of designing and creating a mini-line of dairy products company in terms of raw milk include costs of design, construction and purchase of equipment. As shown educational scientific and industrial laboratory dairy PF NUBiP Ukraine "Crimean Agrotechnical University" specified capital expenditures are about 7.2 million. USD.

Considering the average of earnings per one ton of raw milk, annual income at work processing plant, per stock 170 heads of dairy cows with annual output of 912 tons of milk production will be 3.8 million. USD. This term return on investment in the creation of milk processing plant will be 1.89 years.

Conclusion. Processing of raw materials (milk) company in terms of dairy raw materials increases the economic efficiency of milk production by 5-6 times, allowing producers to effectively develop their own production without the involvement of credit.

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In Article predlozheny Technological scheme of production breast production kotorye vnedreny in Uchebn-LF is industrial podrazdelenyy NUByP Ukraine "Crimean ahrotehnolohycheskyy University" putem creation Uchebn is industrial-scientific complex zhyvotnovodcheskoho, as well as Uchebn-technological laboratory Converting milk.

Breast raw materials, molochnaya out production poholove animals, sebestoymost, profit.

The paper consisted technological production scheme of dairy products, which are embedded in training and production unit SB NULES of Ukraine «Crimean AgroTechnological University» by creating educational, scientific and industrial livestock complex, as well as educational and technological laboratory processing of milk.

Livestock raw, livestock products, number of animals, average cost, profit.

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OPTIMIZATION MODE MOTION HINGE-ARTICULATED JIB TOWER CRANE SYSTEM FOR DYNAMIC CRITERION

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OG Shevchuk, MA***

The paper solved variational problems in optimization mode motion hinge-articulated jib tower crane system for dynamic criterion in which fluctuations are eliminated cargo. The results show graphics solution dependencies.