CHAPTER 1. ACCOUNTING AND ANALYTICAL SUPPORT AND FINANCIAL AND ECONOMIC SECURITY IN THE AGRICULTURAL SECTOR

1.1. ACCOUNTING OF MILK PROCESSING PROCESSES

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For agricultural producers who have organized the processing of agricultural products within their farms, the issues of complete, timely, and reliable determination of the amount of actual costs associated with the cork are particularly relevant. At the same time, there are urgent problems related to the calculation of the actual cost of both agricultural products as raw materials and processed products. Within the scope of the study, the calculation of the cost of dairy products affects the process of pricing, profit generation and determining the efficiency of operating activities. For farms, a properly established system of accounting for the processing of agricultural products is a guarantee of control over the use of material and monetary resources, a guarantee of making informed and effective management decisions.

Skrypnyk (2019) once studied the economic nature of production costs. The scientist understood costs as the cost of all the resources used to produce a predetermined volume of products. This view of costs is fundamental. This fundamental interpretation reflects the actual state of affairs at any enterprise. Therefore, it is appropriate to use this judgment as a starting point in accounting theory and practice. This is quite justified, since the key task of the accounting system is to reflect the actual movement of goods and material assets in the enterprise. Thus, the accounting understanding of costs is reduced to the vision in terms of resource consumption in terms of their purchase prices.

We also distinguish between the economic view of costs in the sense of the costs of an enterprise for the acquisition of resources necessary for the production process. It also includes the lost income of the enterprise if the best alternative way of using such resources was neglected.

Dilemmas in the interpretation of concepts were a prerequisite for the development of the concept of opportunity costs, which was proposed by Austrian economist F. Wieser in the 80s of the XIX century. He was a follower and student of K. Menger. This theory was further developed by US economists D. Green and G. Davenport in 2019. Therefore, based on aspects of classical theories, we believe that the key goal of production accounting is timely, reliable and comprehensive reflection of the actual amount and content of costs, as well as control over the use of all types of resources used in production. At the same time, an equally important point is the adequate accounting reflection of the volume of manufactured products or services rendered in kind and in monetary terms.

Thus, costs are the various substances and forces of nature used to make the production process possible. The result of the production process is the manufacture and sale of a new labor product. In the context of commodity production, the monetary value of the costs of creating a specific product is called the cost price. Therefore, the concept of "production costs" combines the terms 'costs' and "cost price" (Telegina, 2019).

From an accounting standpoint, it is important to keep in mind the frequency of expenses. In the context of periodicity, costs are identified in monetary terms as tangible and intangible goods consumed by an enterprise to manufacture specific types of products (goods, services, works) over a certain period of time. The optimal value of production costs is an indicator of the efficiency of the company's management activities in general, as it shows the total costs of living and embodied labor. Reflecting in the accounting accounting adequate to the needs of production, the cost comprehensively characterizes the level of use of all enterprise resources, including equipment, technologies, innovations, labor and production organization.

The methodological basis for the formation of information in the accounting system on the amount of expenses of the enterprise and the disclosure of this information in the financial statements is National Accounting Regulation (Standard) 16 "Expenses", according to which:

1. Expenses are recognized in the accounting system simultaneously with the decrease in assets or increase in liabilities.

2. Decrease in assets or increase in liabilities is recognized as expenses of the reporting period. These processes lead to a decrease in the amount of equity capital of the enterprise (unless it is a decrease in capital due to its withdrawal or distribution by the owners), but subject to a reliable assessment of such expenses.

3. Periodization is traced in the simultaneous recognition of expenses and income in the same period. In other words, according to the accrual method, the income for which the expenses were incurred should be recognized along with the expenses.

4. If the amount of expenses cannot be directly related to the amount of income of a particular period, such expenses are recognized as expenses of the reporting period in which they were incurred.

5. If an asset is capable of generating economic benefits over a number of reporting periods, the expense is recognized by systematically allocating the cost of the asset to depreciation and amortization over the specific reporting periods in which the asset is used.

The regulatory framework provides for a number of concepts and processes that are not considered to be expenses of the company and, as a result, are not included in the statement of financial performance:

- advances made or full prepayments to suppliers for the future purchase of inventories, works, services; repayment of short- and long-term borrowings;
- other decreases in assets or increases in liabilities, the signs of which contradict the provisions of the NSAU;
- expenses that are identified as a decrease in equity in accordance with the provisions of the NAS.

According to the national accounting standards (namely, clause 5 of NUAS 16 “Expenses”), expenses should be recognized in accounting in parallel with an increase in liabilities or a decrease in assets. Based on the prescribed rule, the Methodological Recommendations on Planning, Accounting and Calculation of the Cost of Production (Works, Services) of Agricultural Enterprises, approved by the Order of the Ministry of Agrarian Policy of Ukraine No. 132 of 18.05.2001 (as amended and supplemented by October 31, 2005, No. 589) and NSAU 16 “Expenses”, expenses are classified according to clear criteria outlined in Table 1.1.1.

Table 1.1.1

Classification of expenses according to the regulatory framework

Signs	Expenses		
	Methodological recommendations, clause 2.6.	Model Regulation, clause 2.6	NP(S)BU16 “Expenses”
By centers of responsibility (place of cost incurrence)	Costs of production, shop, department, process, service	Costs of production, shop, department, service	
By type of product (work, services)	Costs of products, typical representatives of products, groups of homogeneous products, one-time orders, semi-finished products, gross, marketable, sold products	Costs of products, typical representatives products, groups of homogeneous products, one-time orders, semi-finished, gross, marketable, sold products	
By the unity of composition (homogeneity) of losses	Single element, complex		
By typ of cost	Costs by economic elements, costs by costing items	Costs by economic elements, costs by cost center	Costs by economic elements
By method of cost transfer to products	Direct, indirect costs	Direct, indirect costs	Direct, indirect costs
By the degree of influence of production volume on the level of costs	Variable costs, fixed costs	Costs are conditionally variable, conditionally fixed	Variable costs, fixed costs
By calendar periods	Current, non-current, one-time expenses	Current, non-current expenses	
By expediency of spending	Productive, unproductive		
By definition, the attribution to cost of production	Product costs, expenses of the period		
By type of activity			Expenses of ordinary and extraordinary activities

The classification of production costs helps to better understand the purpose of costs and their economic role in the production of goods (Telegina, 2019). The classification of production costs is understood as their distribution. Cost decomposition forms the cost of finished products from economically homogeneous cost groups for the purposes of planning, accounting and cost diagnostics. Cost classification is the decomposition of costs by clear features. Classification implies a deeper understanding of the essence of costs, studying the procedure of their formation and directions of their implementation.

Researchers identify several approaches to cost classification. They are grouped in Fig. 1.1.1.

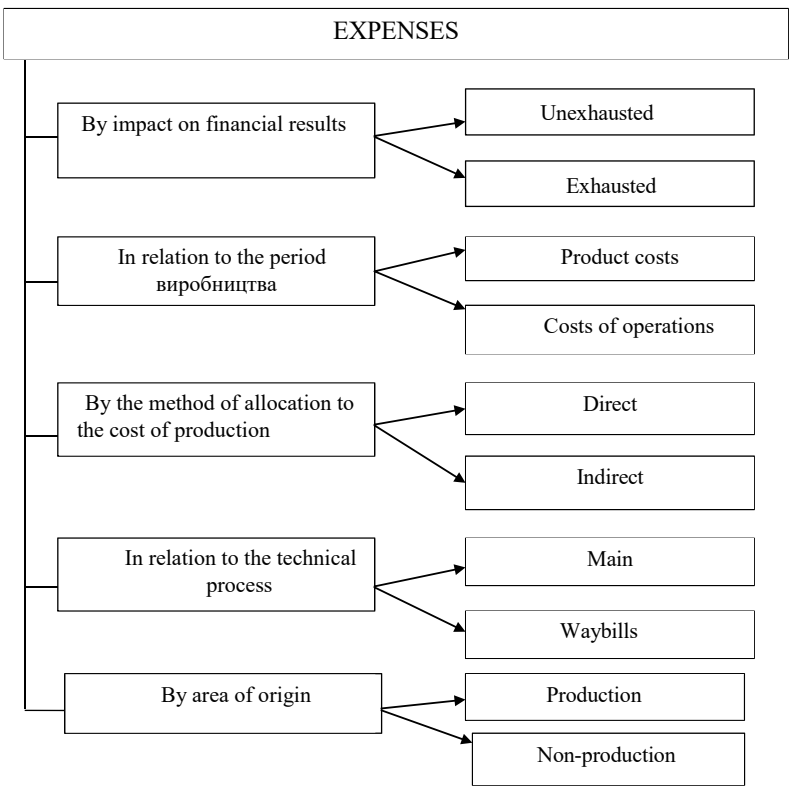

Fig. 1.1.1. Classification of enterprise expenses

Here is a brief description of a number of classification groups of expenses.

Exhausted (consumed) expenses are expenses of the reporting period. The occurrence of such expenses traditionally leads to a decrease in assets or an increase in

liabilities in the course of the company's operating activities. The purpose of an enterprise in incurring such expenses is to generate income based on the results of its operations in the reporting period. Such expenses include the consumption of raw materials and supplies, accrued wages and salaries, etc. A prerequisite for recognizing such expenses in a particular reporting period is that the products for which the expenses were incurred were sold in the same reporting period. Exhausted costs as cost of goods sold have their place in the Statement of Financial Performance.

Unexhausted (unused) expenses are identified with an increase in liabilities or a decrease in assets in the course of operating activities in order to generate income in the future. Non-exhaustible expenses include the costs of purchasing: materials that have not yet been used for production or other needs; goods that are shown as inventory in the company's assets because they have not yet been sold. The cost of such expenses at the end of the reporting period is reflected in section II of the Balance Sheet assets (production stocks, work in progress, current biological assets, receivables for advances made, etc.)

It should be noted that not all exhausted expenses, i.e. expenses incurred within a particular accounting period, are directly related to the production of goods. Therefore, the calculation should differentiate between costs and expenses that form the cost of finished goods and expenses of the period.

Product costs are always related to the process of producing goods or purchasing goods for further sale. In other words, they are called production costs. In the course of production, the costs of producing a particular type of product and the production cost of that product are generated. The costs of processing agricultural products include the following types of expenses provided for by NUAS 16 “Expenses” and relate to the function of producing a specific type of product. We also have the right to stipulate that such expenses form the historical cost of production.

Period expenses differ significantly from production costs in their economic content. Thus, period expenses are not directly related to production processes. Period expenses include expenses for management, marketing, and research functions. Such expenses are not included in the cost of finished goods or inventories. They are identified as expenses of the period in which they were incurred.

A specific feature of expenses in the production or processing sector of agricultural producers is the nature of the connection of such expenses with a specific object: a type of product, a division, a project, etc. The nature of this connection allows us to divide costs into direct and indirect costs. Direct costs are directly related to a specific cost accounting object, i.e., they are incurred for the production of a specific type of product. Therefore, the estimated costs are included in the cost of specific products (works, services).

Direct labor costs consist of wages and other payments to personnel involved in the production of specific products and services. A prerequisite is that these costs are directly attributable to a specific cost object. Other direct costs include other types of production costs that are directly related to a specific cost object. These include accrued unified social security taxes, certain rent for land shares and non-current assets, depreciation, etc.

Indirect (indirect) expenses are not directly attributed to a specific cost accounting object. That is, the direct method is not used to account for indirect costs. Such costs for agricultural producers relate to the cultivation of many types of crops or several groups of animals, and the performance of various works. Therefore, in order to include such costs in the cost of production, they need to be distributed among the accounting objects beforehand. Therefore, practicing accountants often call them them as allocable expenses. NAS 16 “Expenses” identifies indirect costs as general production costs. Further decomposition of expenses in accounting is carried out in the context of costing items.

The main cost items in milk processing are: raw materials and supplies; purchased components, semi-finished products, work and services of third-party organizations; waste products; fuel and energy for technological purposes; basic and additional wages of production workers; contributions to social funds; contributions for preparation and development of production; maintenance and operation of equipment; shop expenses; reimbursement of depreciation of special tools and devices for the intended purpose and other special expenses.

Direct costs are charged directly to the cost of a particular type of product in accordance with reasonable standards and norms set forth in the production flow charts for a particular type of product. The amounts of such expenses are easy to control and compare with actual and planned expenses.

Each company independently establishes the basis for allocating indirect costs in its accounting policy. The benchmark is generally accepted practice, the specifics of the production process and the requirements of methodological recommendations.

Thus, production cost consists of direct and indirect costs (general production expenses), excluding administrative expenses and sales expenses. Direct production costs are recorded in the designated accounting account 23 “Production”. Indirect expenses are recorded in the account 91 “General production expenses”. The methodology provides for the closure of account 91 at the end of the reporting period by writing off the amounts of general production expenses distributed among different types of finished products to the debit of account 23 “Production”. The described methodology provides for an enterprise to account for manufactured products at reduced (partial) cost.

In some cases, it is necessary to determine the cost of a particular product by taking into account a portion of sales expenses and a portion of general business expenses. In this case, the methodology declared in the Order on Accounting Policy is followed, taking into account the established rates of distribution of such types of expenses. In this way, the full actual cost of manufactured products is determined. Expenses related to the management and maintenance of the enterprise as a whole are accounted for in the accounting account 92 “Administrative expenses”. Expenses for the functioning of departments that coordinate product sales, promote advertising, ensure delivery of products to consumers and other selling expenses of the enterprise are accounted for in the accounting account 93 “Selling expenses”.

Direct costs of production are called basic costs. Without such costs, production is impossible. The main costs include direct expenses for labor, material costs, depreciation,

and other direct expenses. The division of costs into direct, indirect, overhead, and direct costs is driven by the need for more accurate calculation, i.e., obtaining more objective information on the level of costs. The relationship between certain types of expenses is shown in Fig. 1.1.2.

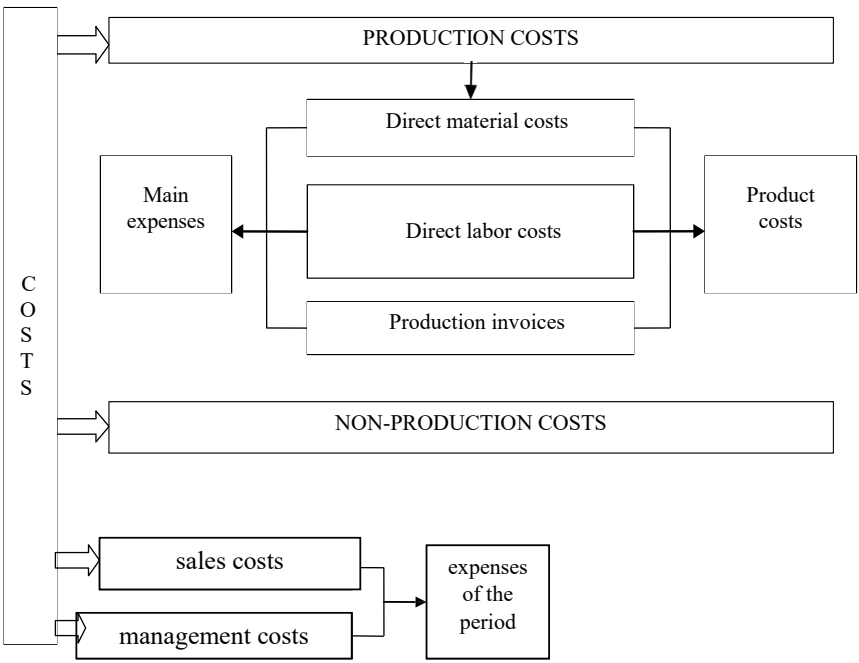

Fig. 1.1.2. Relationship between different types of costs

The cost accounting object or costing object is a specific individual production order. After the order is completed or the production cycle is completed, the actual cost can be determined. Until the cost is determined, i.e., until the costing is performed, all costs related to this process are considered work in progress.

Therefore, after the production cycle is completed, you can start determining the actual cost of certain types of products (orders). If there is a need to determine the cost of a part of the manufactured products, the so-called conditional cost estimation can be applied. Thus, partial production and output can be estimated at the actual cost of similar products that were sold earlier or at the planned cost of these products.

The main tasks of accounting for dairy production costs є:

- differentiation of production costs and identification of their list by

economic content, centers of responsibility, accounting items, elements and other identification features provided for by the company's accounting policy, financial and management accounting standards;

- full and timely reflection of the volume of manufactured products, works or services rendered by individual accounting objects, responsibility centers, and periods;

- determination of the actual cost of a unit of products (works, services) in accordance with the approved regulations; comparison of the determined level with regulatory, forecast or market parameters;

generating an appropriate information array on the amount of costs and volume of manufactured products (works, services) in the system of primary documents, accounting registers and reporting forms.

The efficient organization of the technological process at dairy processing plants largely depends on a properly established accounting and analytical system for the company's overall operations. At the same time, it is important to comply with standards and sanitary conditions during milk processing. Let's look at some of the regulatory and legal provisions related to milk processing.

According to the Law of Ukraine No. 1870-IV "On Milk and Dairy Products" dated 24.06.04 (as amended by Laws No. 402-V dated 30.11.2006, Journal of Laws of Ukraine, 2007, No. 4, Article 37 - effective from the date of Ukraine's accession to the World Trade Organization No. 2132-VI of 15.04.2010, the Journal of Laws of Ukraine, 2010, No. 21, p. 221 No. 5462-VI dated 16.10.2012, Journal of Laws of Ukraine, 2014, No. 6-7, Article 80 No. 442-VII of 05.09.2013, Jubilee of Ukraine, 2014, No. 20-21, p. 727 No. 1193-VII dated 09.04.2014, JD, 2014, No. 23, p. 873 No. 124-IX of September 20, 2019, Journal of Laws of Ukraine, 2019, No. 46, p. 295 No. 191-VIII dated 12.02.2015, Journal of Laws of Ukraine, 2015, No. 21, p. 133 No. 2573-IX of 06.09.2022 No. 2849-IX of 13.12.2022), raw milk means milk that has been previously subjected to physical processing (cooling, heating, filtration). Dairy raw materials also include dairy products that contain only milk components (skim milk, cream, etc.) and will be used for the production of other products.

The formation of cow's milk as a raw material at dairy processing enterprises is now carried out in accordance with the requirements of the standard from January 1, 2019 - DSTU 3662:2018 "Cow's milk as a raw material. This national standard contains the characteristics and technical conditions for the purchase and acceptance of cow's milk for the purpose of its further introduction into circulation. This national standard can be used by all market operators engaged in the production, purchase and processing of milk to regulate the relationship between the seller and the receiver to assess the quality of purchased milk, to implement systems for analyzing hazards and controlling critical points, as well as by authorities to assess the ability of business entities to comply with established procedures and rules.

This national standard in no way establishes mandatory compliance with its provisions, which are regulated by the norms of the current legislation in the field of food safety and quality. The application of DSTU 3662:2018 Raw cow's milk. Technical

specifications is interrelated with the requirements of the current regulatory documents for dairy products.

In addition to qualitative parameters, milk accounting also uses natural units, such as physical weight and kilograms, centners, and tons. In some cases, milk meters are used to measure milk in liters, i.e. in volumetric units, and a formula can be used to convert milk into mass units.

Thus, milk as a raw material is obtained as a result of biological transformation in livestock farming at agricultural enterprises. To ensure compliance with the requirements of the standards, the agricultural producer is obliged to meet the requirements of primary milk processing, including its cleaning from mechanical impurities, cooling and storage at low temperature, and transportation. It is important that the agricultural producer has a specially equipped room for primary milk processing: a milk drainage room for receiving, examining and cleaning milk; a washing room for washing, drying, disinfecting and storing milk utensils and milking equipment.

If the agricultural producer is also engaged in milk processing, then separate special premises are required for this purpose - dairy production facilities and a special room for milk analysis. The main purpose of dairy production facilities set up by agricultural producers is to ensure high quality of milk and generally improve the dairy farming industry; to produce high-quality dairy products (organization of craft dairy production) to provide consumers with quality food and to increase the competitiveness of small agricultural producers.

Dairy production technology is a complex set of diverse and specific technological processes. To produce drinking milk and fermented milk products, the technology includes all milk components. Cream, sour cream, cottage cheese, butter, and hard cheeses are produced using individual milk components. Production of dried dairy products, ice cream and canned milk involves the use of milk powder. Secondary dairy raw materials are used to produce edible and technical casein, milk protein, milk sugar, whole milk replacer, and condensed whey.

The concept of “valorization” is related to the organization of milk processing on a farm. This concept is interpreted as a set of production stages that artificially increase the price of food. Since today farms are particularly acutely aware of the growing competition with agroholdings, organizing on-farm processing of agricultural products is one of the ways to increase value-added dairy products. In this case, farmers should feel a clear advantage, as valorization is a prerequisite for increasing competitiveness and profitability of farms.

The value added (VA) indicator is formed in the farm accounting system and consists of the following elements: depreciation of fixed assets and other non-current assets (A), staff salaries (W), profit (P), and land rent (LR). The sum of all these components constitutes the value added of the products produced in a particular reporting period:

$$VA = A + W + P + LR \quad (1.1.1)$$

We understand that the process of creating higher added value for dairy products is only possible if economic activity expands. That is, the technological process has to go

beyond domestic milk production. Therefore, valorization includes a set of tangible and intangible costs that create basic and added value in the farming environment.

Moving further into the market, each individual type of dairy product creates its own value chain. This study allows us to identify the types of dairy products, the production of which makes it possible to control and coordinate the competitive advantage of the farm on of the dairy market. The share of profits at the stage of milk processing at the farm is changing due to the constant rise in the cost of livestock services, materials and energy. Milk processing enables the farm to give its finished products unique competitive qualities, especially hard cheeses. As a result, the commercial value-added vector increases at the processing stage, as shown in the figure. Own retail trade also contributes to the growth of added value, as it forms one of its most important quality indicators - the freshness of farm products. This rational management of operations by eliminating intermediaries from the price chain changes priorities in the dairy market and allows farmers to earn higher profits. The expansion of operational activities on the farm, the emergence of new types of production determines the special information needs of farmers and requires a specific approach to the organization of accounting for milk production and processing.

The internal content of the farm accounting system is determined by a number of factors: specialization, size by various criteria, organizational structure, organizational and legal form of management, etc. At the same time, the professional level of accounting, its methodological and organizational content, and structural and functional regulation must always meet growing information needs and help protect the private property of the farmer. Using the classical financial accounting scheme and some components of management accounting, medium and large farms successfully keep records of production. The multi-level accounting system of such producers is built in accordance with the principles of national accounting standards and correlates with the requirements of the Methodological Recommendations on the use of journal-order registers for agricultural enterprises No. 390 of June 4, 2009 and the Methodological Recommendations on planning, accounting and costing of products (works, services) for agricultural enterprises No. 132 of May 18, 2001.

We observe significant differences in the structural and functional content of the above-mentioned regulatory document and the Methodological Recommendations on the use of accounting registers by small enterprises No. 720 of June 15, 2011. Most of the differences relate to the recommendations for the use of different forms of accounting registers (analytical and synthetic registers), a comparison of which is presented in Table 1.1.2.

The conducted research shows gaps in the Methodological Recommendations on the Organization and Management of Accounting in Peasant (Farm) Enterprises and other regulatory documents related to leveling the organizational, legal and sectoral specifics of farming development at the present stage. Quite often, the provisions of regulatory documents contradict the main provisions and extreme amendments to the Law of Ukraine "On Farming" No. 973-IV of June 19, 2003. Therefore, the regulatory framework for the

organization of accounting in farms in general and the process of milk production and processing in particular needs to be revised and updated.

Table 1.1.2

Comparative characteristics of accounting registers and primary documents for small enterprises and farms in a simplified form

N	Accounting site	Small enterprise	Farming farm
1	Registration of all business transactions	-	Business Transaction Log
2	Accounting for non-current assets, depreciation (wear and tear	Statement 1.1-ms of accounting for non-current assets Statement 1.2-ms of accounting for depreciation Statement 4.1-ms of accounting for expenses for repair and improvement of fixed assets	Statement of accounting for fixed assets
3	Accounting for production stocks, finished products and inventories	1-month asset accounting journal	Warehouse accounting book (card)
4	Accounting for animals in cultivation and fattening	-	Book of accounting for the movement of animals and poultry on the farm
5	Cost accounting for production	4-month cost accounting journal	Income and expense accounting book
6	Accounting for liabilities, profits and capital	Journal of 2-month accounting for capital and liabilities	Journal of business transactions
7	Accounting of settlements and other transactions	Statement 2.1-ms of accounting of settlements with suppliers, other creditors and budget	Statement of accounting of settlements
8	Accounting for sales	3-month income accounting journal	Journal of business transactions and Income and expense accounting book
9	Accounting of labor and wages	Statement 2.2-ms accounting of settlements with employees	Settlement and payment statement
10	Generalization of data on synthetic accounts	Turnover statement	-
11	Financial statements	Balance sheet (form No. 1-ms) Income statement (form No. 2-ms)	Balance sheet (form No. 1-ms) Income statement (form No. 2-ms)

The current state of affairs demonstrates the imperfection of methodological developments for the proper organization of accounting in farms. A weak point is the

accounting of costs for the production and processing of agricultural products. In addition, there is no unanimity in the choice of methods for accounting for costs and valuation of finished products - creation of biological assets or production of agricultural products; actual cost or market (fair) value. These discrepancies are the result of inconsistencies between the requirements of Accounting Regulation (Standard) 30 “Biological Assets” and the current regulations on the organization of accounting in farms.

A number of unexplained and controversial issues arose after the introduction of NP(S)BU 30 “Biological Assets” into the accounting practice of agricultural enterprises. The novelty of the problem, the lack of readiness of the accounting staff of agricultural enterprises for innovations, the instability of the economy and the impact of inflationary factors on business results have always been a barrier to the effective practical application of NUAS 30 “Biological Assets”.

Discusses the expansion of the list of accounting objects in agriculture, which is due to the adoption of NP(S)BU 30 “Biological Assets”. Now the objects of accounting are both biological assets and agricultural products (Gorkavyi, 2015) . It is now customary to include current biological assets as work in progress. In fact, however, NP(C)BU 30 treats work in progress as a separate accounting item in order to accumulate the costs of producing agricultural products with a long production cycle. In this regard, it should be noted that to account for the production and processing of milk on a farm, accounting account 23 “Production” is used. This approach has not yet been substantiated theoretically, which complicates the already difficult accounting of production in agricultural enterprises.

Didorenko (2015) emphasizes the problematic issues that arise in connection with the regulatory and legal regulation of the valuation of agricultural products and biological assets at fair value. It is known that the basis of such valuation is the active market prices for similar products. At the same time, it is practically impossible to have operational information about the active market prices on a specific reporting date. The instability of the market situation, low effective demand of the population, the impact of inflation are the reasons for sharp price fluctuations, so it is very difficult for an accountant to track them promptly. The unreliability of the information received by the accountant about the prices of the active market can lead to errors in accounting due to incorrect valuation of finished products at fair value.

In the textbook edited by Ogiychuk (2016), the author emphasizes that the objects of cost calculation in livestock farming are the main products. The publication also provides a list of works that are planned to be performed before starting the calculation of the cost of finished livestock products and milk processing products.

The material on the procedure for primary documentation of operations related to milk production and processing is of great value. The list of items for cost accounting is outlined, and the procedure for synthetic and analytical accounting of milk production and processing is described.

The procedure for primary documentation of the entry of milk from biological transformation in livestock farming and dairy products based on the results of milk

processing is described. The calculation of the cost of livestock and industrial production products, the procedure for writing off calculation differences are described in detail.

The study of issues of industrial milk processing and accounting for the production of dairy products is based on the development of a system of economic indicators and socio-economic relations in modern condition. The basis of such research is the interdependence of processes and phenomena, as well as the dialectical relationship between these processes and phenomena, which are inherent in the agricultural sector of the economy and occur in society as a whole. The dialectical approach makes it possible to apply multivariate diagnostics of the conditions and factors of the formation of the dairy market. At the same time, trends in the development of the dairy cattle industry as a raw material base for industrial milk processing are taken into account and the possibility of organizing milk processing on one's own within the framework of a farm, where a productive herd of cows is kept and milk is produced, is considered.

The dialectical method is used in research on the development of cost accounting concepts, the evaluation of finished livestock products and industrial processing of such products, as well as on the practice of calculating the cost of production in livestock and milk processing. The dialectical method is based on clear philosophical and general scientific principles.

General scientific principles are intended for the study of structural-functional and systemic approaches in the study of social phenomena. At the same time, within the framework of these principles, methods of analysis and synthesis are used in the study of the economic features of industrial processing of livestock products and the impact of this specificity on the content of the accounting system.

Methods of deduction and induction within the scope of the research involve identifying the location of production costs in the process of managing the activities of the enterprise. In the work, a monographic method was used to characterize the essence and location of costs in the accounting system of a specific agricultural producer.

Statistical methods were of great importance for achieving the tasks set in the work: graphic, tabular, comparative, historical-systemic (when studying the classification of costs for milk processing), abstract-logical. The reliability of recommendations and proposals based on the results of the study depends on the level of complexity of their application.

Industrial milk processing consists of separate independent elements, which are interconnected and represented by a system - processing technology. Research indicates that these components constitute a kind of infrastructure that determines the integrity of the approach to solving the problem at hand. To assess the development of milk processing processes based on agricultural producers, the principle of systematicity was applied, which made it possible to investigate a number of factors, criteria, and a set of methods for assessing the development of industrial dairy production.

A systematic approach to diagnostics of industrial milk processing requires a transition from a separate study of economic situations and processes to a generalized consideration of the concept. To identify the real features of the development of industrial

milk processing within farms should be based on the real features of the development of the industrial dairy industry. Methods of economic analysis provide the search for more effective solutions for organizing industrial milk processing within farms.

Like any science, accounting also uses a number of methods that are unique to it. These include: primary documentation; general accounting in the system of accounting accounts; grouping of information in the system of analytical and synthetic accounting registers; systematization of information according to the principle of double entry; balance sheet generalization; calculation.

Documentation is intended to establish the facts of recording the costs of milk processing, as well as to provide legal force to accounting information and enable the reliability of the final result of the accounting system. Estimation is a reflection in accounting of the costs of materialized and living labor in economic assets, establishing actual costs in the process of milk processing for formation of the fair value of dairy products. The calculation is intended to calculate the cost of dairy products by type according to accounting data. Based on double entry, information related to milk processing is systematized by reflecting it on the debit and credit of economically related accounting accounts, which reduces to minimum number of errors in accounting. Balance sheet generalization is intended to reflect the assets, liabilities and obligations of the enterprise on a specific or reporting date in a single monetary value. Balance sheet generalization allows you to differentiate the assets of the enterprise by sources of formation and purpose, composition and functional role in the activities of the enterprise.

Pricing is an important operational decision to implement the strategy on the farm at the accounting level. Management accounting of milk processing processes should provide an adequate information and methodological basis for pricing. For a farm, external pricing is a particularly important area of pricing, which involves the formation of prices depending on the farm's sales channels and the level of prices on the market. A proper level of accounting support for the pricing process is a key to successful regulation of relations between market participants.

The market-based pricing method involves setting prices for products at a level at which the farmer can sell dairy products to external consumers or at a price offered by a competitor. This method has certain advantages, which include an approximate assessment of the farm's overall performance. The disadvantage of this method is the dependence of pricing on the influence of social, political, seasonal and other factors in different time intervals.

The advantages of setting the price of dairy products based on their full actual cost are the objectivity and accuracy of price calculations. When increasing the volume of dairy production, this method can be a guideline, since the amount of fixed costs, or in our case, overhead costs, remains unchanged.

The costing of milk processing products on a farm could be successfully carried out using the standard method. The advantages of this method are: the possibility of a separate assessment of the efficiency of the processing plant as a separate center of responsibility; formation of an information array for cost analysis and control; minimization of

accounting work related to cost calculation; timely provision of information to the farmer about expected costs for milk processing.

At the same time, the most popular calculation methods for pricing are the full cost method and the market method. The use of the full cost method is appropriate if the farmer's goal coincides with the mission of the farm and the farming system in general. The main problem with this costing method is that it is difficult to control the costs of the processing plant, as they are later transferred to the farm as a whole. The market method allows to create a competitive environment between the farm's divisions and assess the efficiency of each of them.

The effectiveness of the contractual method of calculation depends on the level of ethics and corporate culture of the farm's counterparties, the farmer's competence, and the level of information about the progress of milk processing on the farm.

The cost-based pricing decision-making procedure first involves determining the purpose of this process (increasing the market share of a particular type of dairy product, entering the market, maximizing profits, concluding contracts, etc.) The next step is to collect and analyze information (costing, determining demand, analyzing competitors' prices and product mix), and selecting a pricing strategy that involves setting prices for dairy products in the short term or in the long term.

To justify the external selling price of dairy products, it is appropriate to use one of two models: cost-based pricing or the economic model. The economic model is based on the comparison of the amount of costs and the projected amount of income, which implies setting a price level for dairy products that will maximize profits. In this case, additional manipulations are required, such as the analysis of price elasticity, dynamics of income and expenses, etc. It should be borne in mind that the difference between total income and total losses increases as long as the growth rate of total income exceeds the growth rate of expenses. However, scholars note that this scheme is inherent in the raw materials market.

The cost-plus pricing method is more widely used in different types of markets. It allows you to determine the price based on costs by adding a markup to them.

$$Price = Costs + Markup;\ Markup = Markup\ percentage \times Costs \qquad (1.1.2)$$

The markup can be determined on the basis of variable production costs, full production costs, total costs, or total variable costs. In a farm, the norms of NP(S)BU 9 “Inventories” are used to form the selling price.

To formulate and provide recommendations on the feasibility of implementing the cost-plus method in the farm, we conducted a study of the process of pricing vitaminized yogurt “Jersey” 500 g in a bucket, which is produced in the processing shop of the farm without the addition of vegetable fats in accordance with DSTU 4753:2107. The price of such yogurt in the farm's branded stores at various city trading floors is UAH 82. The analysis of the yogurt recipe made it possible to establish direct material costs for the production of 100 kg of Jersey yogurt (Table 1.1.3).

The price of yogurt produced on the farm is determined by full costs: Markup percentage = 13,600 / 10,542.64 = 0.29, where 13,600 is the amount of desired profit,

10,542.64 is the product of the full unit cost (500 g) of ice cream and the production volume (52.71 × 200). After all, 200 units of 500 g each is 100 kg of yogurt.

Table 1.1.3

The structure of direct material costs for the production of 100 kg of yogurt "Jersey" produced in a farm (conditional data)

Type of raw materials	Quantity, kg	Price per 1 kg, UAH	Cost per 100 kg of mixture, UAH
Drinking cow's milk of the 1st class.	42, 36	8,46	358,37
Skimmed milk powder 33% protein	3	98,32	294,96
Sourdough starter	16	93,54	1496,64
Butter	3,92	116,2	455,5
Sugar	17,5	10,86	190,05
Vanillin	0,015	100	1,5
Rice flour	0,2	45,32	9,07
Egg yolk powder	0,725	198,25	143,73
Water	16,28	0,05	0,82
Total	100	-	2 950,64

The formation of the price for Jersey yogurt is presented in Table 1.1.4. Thus, the markup is equal to the product of the total unit cost (500 g) of yogurt of UAH 52.71 and a markup factor of 0.29, i.e., UAH 15.29, and the price is UAH 68 excluding VAT. The VAT charge results in a selling price of UAH 81.6 per bucket (500 g).

An alternative pricing method for a farm may be target costing, where the cost of production is defined as the difference between the price and the profit. In this case, the calculation of the cost of dairy products should be based on a pre-established selling price. This price is determined is determined through market research. Therefore, in order to determine the target cost of dairy products, the amount of profit that the farm wishes to receive should be reduced by the expected market price. Then, all participants in the milk processing process should work to ensure that the dairy products produced meet the target cost as closely as possible.

This is where an iterative and innovative approach is required, searching for non-standard solutions through step-by-step consideration of each production nuance in relation to the cost. To obtain the desired economic benefit in the future, accountants and technologists should calculate the amount of targeted cost reduction in the following steps:

- determine the possible selling price of a unit of dairy products;
- calculate the target cost of dairy products (per unit and in total);
- compare the target and estimated cost of dairy products to determine the amount of target cost reduction;
- redesign products and at the same time make adjustments to the production process to achieve the target cost reduction.

The undoubted advantage of targeted costing is the focus on external (market) factors rather than exclusively on internal factors. Targeted costing ensures a motivated

behavioral orientation of the farmer to the market, while paying attention to the level of permissible cost, which must be realized if the farm wants to be profitable in a competitive environment.

Table 1.1.4

Results of calculating the price of 100 kg of Jersey yogurt produced on the farm (conditional data)

Indicator	Share in total expenditures, %	Amount, UAH
Direct material costs	27,99	2 950,88
General production variable costs, including		
- depreciation of production lines and equipment	17,57	1 852,33
- fuel and electricity for production purposes	4,62	487,1
- salaries of production employees	7,63	804,4
- unified social tax on salaries	1,7	179,22
- fuel and lubricants	2,23	235,1
- other expenses	2,62	276,21
General production fixed allocated costs	8,32	877,15
Cost of sales	72,68	7 662,39
Administrative expenses	13,2	1 391,63
Selling expenses	14,12	1 497,05
Full cost for pricing	100	10 542,64
Markup	29	3 057,36
Price without value added tax	-	13 600
Value added tax	20	2 720
Price with value added tax	-	16 320

Therefore, with the use of target costing, the production activities of a farm can be coordinated and controlled in accordance with a special strategic guideline of the farm - the target cost (Fig. 1.1.3). The concept of target costing of a farm should provide for close interaction between marketing and management accounting, so the level of organization of target costing significantly affects the relationship of the farm with buyers, as well as the organization of accounting in farms in general. In target costing, a team approach should be implemented in order to achieve the target cost level. Suppliers should play a crucial role in target costing, as reducing the cost of purchasing energy and raw materials according to the milk processing recipe requires revising the terms of the contract to reduce purchase prices. Targeted costing will also require the farm to timely review budgets for the milk processing plant, systematically evaluate its performance in order to promptly adjust the level of indicators for subsequent budgets.

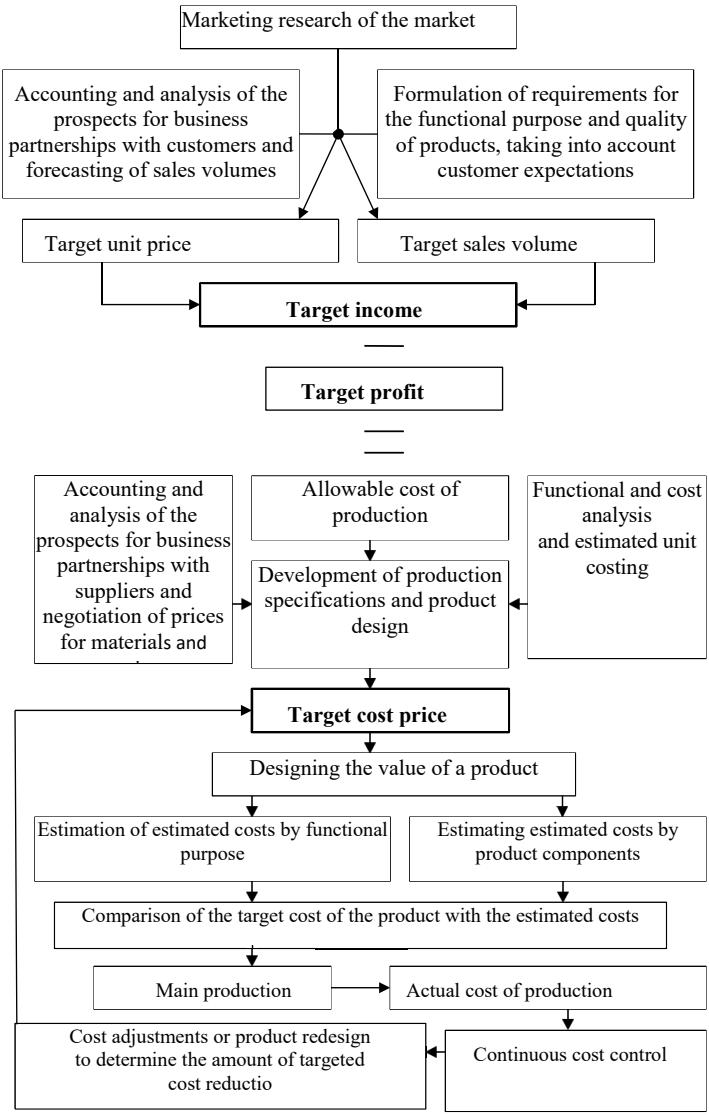

Fig. 1.1.3. Schematic representation of the target costing process for determining the price of products

Thus, the advantages of implementing the target-costing concept on a farm are the integration of marketing with management accounting of milk processing operations; improvement of costing tools for successful pricing. In today's economic environment, the management accounting system should help to improve the quality, reliability and completeness of information in the field of management accounting, in particular, accounting for milk production and processing. Management reporting should be the main information source for making effective management decisions in the field of milk processing management. The relevance of the issue of management reporting in the field of milk processing is related to the fact that internal users of accounting information, the main one being the head of the farm, use indicators of internal reporting.

Management reporting also serves as the basis for assessing the property and financial condition of a farm, justifying management decisions, planning and forecasting its activities. Quite often, the specific and analytical data on the results of economic activity required by a farmer is not available in financial, statistical or tax reporting. Therefore, management reporting should be given a special place in the system of sources of reporting information on the activities of enterprises of various organizational and legal forms and sectors of the economy. Unlike other forms of reporting, management reporting is the most informative and operational, which determines its special place in the system of management and planning of business activities. However, quite often there is a situation when there is no unified vision of the principles of developing approaches to the formation of management reporting in the field of agriculture.

Under current conditions, the successful operation of farms that have a closed production cycle, i.e. organize on-site processing of products, requires improvement of information support for the management of both raw material production and processing. The source of quality information should be a properly organized and structured reporting form, the content of which will ensure that informed management decisions are made. Internal management reporting is a form of presenting important information that serves as a basis for choosing a certain course of action from a variety of alternatives. It may include information that characterizes the actual results of the operating, investment and financial activities of the farm in general, as well as by industry - crop production, livestock and industrial milk processing, both for past periods and as of a specific point in time. Internal management reporting can also demonstrate the results of diagnosing internal and external factors that affect the achievement of the goals set, as well as the planned and strategic performance indicators of the farm in future periods.

It should be recalled that internal management reporting on milk processing and agricultural production is not regulated by regulatory and laws, so its form is not unified. Management reporting does not focus on standardized reporting forms, but rather on the real needs of management. This makes it possible to refer to various types of economic, financial, human resources, and marketing information that a farmer may need at a particular time. Therefore, the most important requirements for a management reporting system in the dairy processing industry are accuracy, comprehensiveness, ease of use in terms of information perception, regularity of its preparation and timely receipt by the

farmer or processing plant technologist.

In addition, the farm's management reporting should clearly meet the needs of the farmer, i.e., the development of such reporting forms should be a compromise between standardized forms and the requirements of the farm's management apparatus regarding its content and presentation. On a farm, management reporting on the milk processing process is usually presented in the form of tables, graphs or text.

The tabular form of presentation of management reporting on milk processing is the most acceptable for both executors and users. The lion's share of internal reporting information is represented by digital material, which is most conveniently presented in tabular form. An explanatory note disclosing the main indicators is included as an explanation to the report. The graphical form of data presentation in management reporting is a visual aid. However, it is very rarely used in the practice of a farm's dairy processing plant. The fact is that displaying a large number of economic indicators in a graphical format makes it difficult to perceive information. Therefore, it is more convenient and appropriate to present large digital arrays in tabular form.

Textual presentation of economic information is justified when digital information requires comments. Therefore, the procedure for preparing management reporting should be considered in terms of the convenience of perceiving information. At the same time, establishing the type and form of internal management reporting on the processing results of the dairy processing plant on the farm is not a significant practical problem, since the list of key reporting elements is not too long, and the farmer can clearly formulate his requirements in terms of the elements of management reporting.

The requirements for the construction and content of internal management reporting are developed by science and practice. Therefore, the formalized requirements for internal management reporting of the milk processing process on a farm should include:

- appropriateness - the information should be relevant and meet the practical needs of the farmer;
- accuracy and objectivity - the content of management reporting should not contain the subjective opinion of the executor or personal assessments of the expert, especially if they are not substantiated by relevant facts;
- promptness of reporting is manifested in the fact that it should be submitted within the timeframe that will ensure timely management decisions by the farmer;
- versatility and brevity - management reporting should not contain excessive or unnecessary information.

In order to form a system of management reporting on the activities of the dairy processing plant of a farm, the list of reporting forms should be carefully coordinated with the technological stages of dairy production. To this end, we propose the sequence of development of management reports, the task of which is to demonstrate the consumption of resources in accordance with the stages of production activities and technological processes of milk processing (Table 1.1.5).

The developed forms of management reporting should be carefully structured to ensure the highest information content and ease of use. It is worth noting that the content

of management reporting, as well as the degree of detail of information on the results of milk processing, depends on the addressees, that is, the list of persons for whom these forms are intended. A high level of detail in economic indicators is typical for the corporate level. Analytical indicators on the state of milk processing are provided to technologists. However, in the context of a farm, i.e. a private small business, the most detailed information will also be interesting and useful for the farmer. Therefore, the introduction of the proposed management reporting system into the practice of farms that process milk within their farms will make it possible to structure relevant information arrays for farmers to make informed management decisions.

Table 1.1.5

Structure of the Journal of operational management accounting and operational control over the consumption of milk and other ingredients for the production of dairy products

Title of the section	Content	Daily production reporting, which is the basis of the report	Primary documentation (used for reporting development)
Movement of raw milk	Quantitative and physicochemical indicators are summarized and analyzed: receipt of raw milk from agricultural suppliers; actual shipment from the hardware shop for preparation for further use, losses during acceptance of raw materials, balances at the beginning and end of the reporting period	Production control log, drawn up daily at based on the results of the milk acceptance shop	Register of raw milk procurement, accounting raw milk receipts, consignment notes agricultural suppliers, laboratory measurement logs
Raw milk consumption for production of products	Quantitative and physical and chemical parameters are summarized and analyzed, as well as the costs of preparing normalized	Production control log, drawn up daily at based on the results of the hardware shop	Recipes by type of dairy products; approved at the enterprise norms of consumption of raw materials, material resources, losses;laboratory measurement logs
Volumes of finished products	Quantitative and physical and chemical indicators of costs for a specific type of dairy products are summarized and analyzed, identifying standard and actual costs during production	Production control journal, drawn up daily based on the results of the work of the workshops that produce dairy products	Recipes for types of dairy products; approved standards for raw material consumption, material resources, and losses at the enterprise; logs of laboratory measurements

Of course, the internal reporting system must be perfectly formed. From the point of view of the systemic approach, the main stages of formation of indicators of internal management reporting are:

1. Identification of entities involved in the formation of accounting and analytical information of internal management reporting and using the information of internal management reporting.
2. Determination of objects, information about which should be provided in the internal management reporting.
3. Formation of channels of economic information in order to create on its basis the system of accounting and analytical information of internal management reporting.
4. Development of means of presenting the results of financial and economic activities of the enterprise as a system of indicators characterizing the external and internal environment of the enterprise.
5. Construction of a generalized model of financial and economic activity of the enterprise with the help of using the system of indicators of internal management reporting.
6. Investigation of the sensitivity of the model of financial and economic activity of the enterprise to changes in its components in relation to the external and internal environment.
7. Control of the main parameters at each of the previously mentioned stages, as well as control of the whole complex of indicators of internal management reporting with the identification of the most significant deviations, search for shortcomings in the functioning of the enterprise and the procedure for presenting information in the reporting, with the return to the initial stage of determining the format of internal management reporting and with the beginning of the corresponding new cycle. At this stage, compliance with the following principles of forming the system of accounting and analytical information of internal management reporting should be ensured: quantification, control, flexible but homogeneous structure, consistency and comparability, visibility and analytical quality, and efficiency.

It is important to note that the composition of management reporting, as well as the level of detail, depends on the to whom the information is provided. The most general data is intended for the corporate level, more detailed data on the state of operations goes to managers, and the most detailed information is provided to the heads of functional units. For the rational construction of production and management reports, in order to prevent duplication, it is advisable to distinguish between their types. Currently, the following types of reports are distinguished. It should be noted that management reports usually include the Cash Flow Statement, the Statement of Profit and Loss, and the Management Balance Sheet. Analysis of financial and economic activities on the basis of management reports allows to identify problems of the company, trends in its financial condition for the future. There are also a operational cost, which is a set of data developed at a certain point in time for the needs of management of the dairy processing enterprise, which aggregates indicators (actual value of indicators), comparative (comparison of indicators – actual and planned, actual and base, actual and similar in industry). The introduction of the above system of internal economic reporting into the practice of management accounting of milk processing enterprises will make it possible to structure relevant information arrays for making management decisions at milk processing enterprises in Ukraine.