



## Categorization of Expenses and Organizational Aspects of Management Accounting Processes in Animal Husbandry

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### Abstract:

This article describes the problems of agricultural activity in Uzbekistan, including the legal and regulatory support for recording biological assets. The definitions and approaches of economists to the issue of biological assets and their accounting are studied. The content of international and republican regulatory documents on the recognition and accounting of agricultural activities, in particular biological assets, has been studied. Conclusions were drawn and proposals were made to improve the legal framework for accounting of biological assets.

**Keywords:** biological assets, agricultural activities, accounting, regulatory legal documents, international accounting standards, national financial reporting standards.

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### Introduction

In the conditions of economic development, animal husbandry costs and obtained products should be accepted flexibly to accounting, and biotransformation processes of biological assets. In this case, it is necessary to ensure the simplicity of the account and the relevance of information for making decisions. "Effective use of account information in livestock management depends on accounting processes, data processing algorithm, account registers, methods of summarizing data, periodicity of their acquisition, systematization in the form of reports for use in decision-making" [1].

"When organizing and maintaining the management account of expenses and product output in dairy farming, it is necessary to take into account all the elements of the accounting system, the specific features of livestock farming that affect its further development, as well as control, analysis and other functions of livestock management" [2].

In animal husbandry, it is appropriate to consider production costs, products and financial results according to the "costs - products - results" management model.

### Materials and methods

The classification of animal husbandry expenses is carried out in accordance with the generality of many features allocated to reflect them in the network accounting system, a detailed description of which is approved by Resolution No. 54 of the Cabinet of Ministers of the Republic of Uzbekistan on February 5, 1999 "Composition of costs of production and sale of products (works, services) and the regulation on the procedure for forming financial results" of " [3] B. The list of expenses related to financial and economic activity of the economic entity is presented in the section.

To facilitate the timely, accurate and correct formation and analysis of data in dairy farming, it is recommended to classify costs as follows (Table 1).

Table 1

Classification of production costs in animal husbandry	
Classification mark	Classification element
By economic element (homogeneous type of expenditure regardless of purpose)	<ul style="list-style-type: none"> <li>- material costs (minus the cost of recoverable waste)</li> <li>- labour costs</li> <li>- allowances for social needs</li> <li>- depreciation</li> <li>- other expenses</li> </ul>
By calculation item (cost objective)	<ol style="list-style-type: none"> <li>1. Material resources used in production, including:               <ol style="list-style-type: none"> <li>1.1. Animal protection equipment,</li> <li>1.2. <b>Food, including: a) purchased and produced in the past years; b) produced in the current year itself;</b></li> <li>1.3. Oil products;</li> <li>1.4. Fuel and energy for technological purposes;</li> <li>1.5. Activities and services of third-party organizations.</li> </ol> </li> <li>2. Salary, including:               <ol style="list-style-type: none"> <li>a) main,</li> <li>b) additional,</li> <li>c) in kind,</li> <li>d) other fees.</li> </ol> </li> <li>3. Allocations for social needs.</li> <li>4. Maintenance of fixed assets, including: a) depreciation, b) repair and maintenance of fixed assets.</li> <li>5. Works and services of auxiliary productions.</li> <li>6. Taxes, Fees and Other Charges.</li> <li>7. Other expenses.</li> <li>8. <b>Losses from death of animals</b></li> <li>9. General production costs</li> <li>10. <b>General economic costs</b></li> </ol>
In relation to the production process	<ul style="list-style-type: none"> <li>- labor costs</li> <li>- labor costs</li> <li>- <b>live labor costs</b></li> </ul>
By costing method	<ul style="list-style-type: none"> <li>directly related to the cost of production</li> <li>indirectly related, to the cost of certain types of products (in proportion to the specified base)</li> </ul>
According to the composition of costs	<ul style="list-style-type: none"> <li>simple (consisting of one cost element)</li> <li>complex (consisting of several cost elements)</li> </ul>
According to the technical and economic content	<ul style="list-style-type: none"> <li>- main</li> <li>- additional costs (production maintenance and management costs)</li> </ul>
Depending on the volume of production	<ul style="list-style-type: none"> <li>-variable (depending on production volume)</li> <li>- conditional constant (independent or less dependent on the volume of production)</li> </ul>
By periodicity	<ul style="list-style-type: none"> <li>- one time</li> <li>- current</li> <li>- periodic</li> </ul>
On planning coverage	<ul style="list-style-type: none"> <li>- planned</li> <li>- unplanned</li> </ul>
On the scope of standardization	<ul style="list-style-type: none"> <li>- standardized</li> <li>- not standardized</li> </ul>
Limitation	<ul style="list-style-type: none"> <li>- limited (for tax purposes)</li> <li>- not limited</li> </ul>
By object of control	<ul style="list-style-type: none"> <li>- expenses at places of appearance</li> <li>- costs in responsibility centres</li> <li>- costs in responsibility centres</li> </ul>

The implementation of this proposal in practice ensured timely, correct and accurate formation of information on the elements of classification of animal death losses, and means of protection of animals from diseases, facilitated analysis and helped to make effective management decisions.

Depending on the size and type of the product, production costs are divided into groups based on the type of activity. On this basis, production is divided into the following groups: primary production, auxiliary production, service production and farms.

For the economic and financial stability of livestock farms, it is very important to have a large volume of main production products, in particular, marketed goods. Livestock farms produce milk, offspring, wool, and other products.

In general, the main production in the agrarian sector can be divided into areas that produce products for plant breeding, animal husbandry and industrial production.

Livestock farms also have auxiliary production, which supports the main production by providing related services and performing work.

In order to ensure the stability of the main production in livestock farms, auxiliary production is calculated, including the following groups: motor transport, horse transport, car and tractor fleets, repair works, water supply, energy supply, heat and gas supply and cooling services.

Service industries and farms mainly provide various social and household services to farm workers and, in some cases, to the population living in the farm area. Service industries and enterprises are divided into the following groups based on the consumption needs of employees and the population: general catering, household services, housing and communal services, preschool educational institutions, cultural institutions, other sectors, and non-commercial activities.

### Research discussion

"Product production costs form the cost of the product at the end of the reporting (calculation) period. Therefore, the cost of products (work, services) is considered as a monetary expression of the costs of material, labor tools and objects, as well as financial costs for their production. According to this definition, the cost of an agricultural product is directly related to the production process of this product, i.e. costs without which it is impossible to produce this product, perform work (depreciation, material costs, wages for employees, etc.), as well as labor tools and labor includes some financial costs (insurance payments, social contributions) and all other costs calculated from the conditions of reproduction. The main criteria for including costs in the cost of manufactured goods are:

- a) costs must be directly related to the production of this type of products;
- b) expenses must be from the conditions of the implementation of the full technological process of production of this type of product, as well as means of production (depreciation, insurance payments, etc.), labor (social contributions);
- c) expenses must be documented (confirmed on the basis of documents) [4].

It is appropriate to organize and implement work on the farm, paying attention to the above-mentioned main criteria when including the costs of production of products in animal husbandry.

"Categorization of costs in animal husbandry according to their economic content is the ratio of the production of individual products (main, by-products and by-products according to their specific types), as well as the ratio of production costs for the industry as a whole to live and materialized labor costs, as well as determining labor productivity (the influence of the level of agrobiotechnological and agrotechnical conditions of production on them ), it is necessary to make management decisions through the analysis of the cost of manufactured products and control over the efficiency of their use in the optimal (acceptable) standardization (planning) of labor resources, labor remuneration fund, material, biological and financial resources. In order to use the above-mentioned categorization of expenses more effectively in practice, it is necessary to further clarify their categorization. Thus, it is appropriate to classify the classification of costs in dairy farming as follows (Figure 2) [1]:

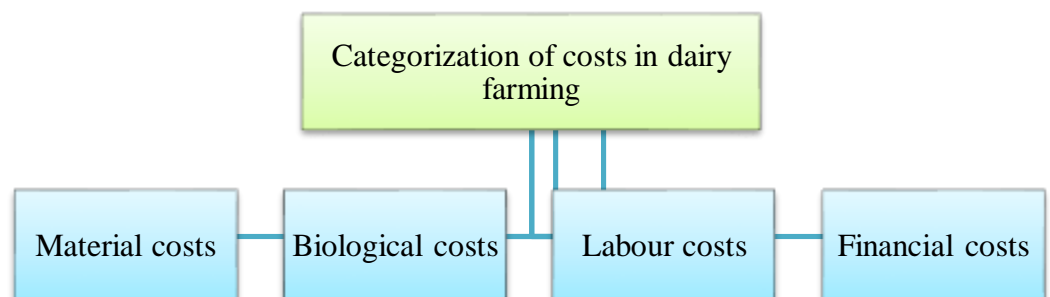


Figure 2. Categorization of costs in dairy farming

Material costs in animal husbandry can include: fuel and lubricants, drugs for protection of livestock from diseases, depreciation of fixed assets, material costs and other costs. Biological costs include livestock feed, bedding (for livestock), as well as depreciation of biological assets (productive livestock).

Costs can be expressed by the following formula:

$$MC_{\text{prod}} = LC + CMR + CBR + FC, (1.1)$$

here:

LC - labor costs;

CMR - consumption costs of material resources;

CBR - costs of consumption of biological resources;

FC - financial activity costs.

"Understanding the nature and composition of these costs in animal husbandry is necessary to solve the following problems:

- Scientifically based standardization of the formation of insurance reserves for labor costs, costs of material and biological labor objects, biological labor objects;
- planning (budgeting) the costs of labor, remuneration, material and biological production reserves in animal husbandry, organizing preliminary and management accounts accordingly;
- determination of proposals for the management account of consumption costs of biological assets (productive animals) by improving the methods of amortization of the value of biological assets;
- the use of scientifically based methods of estimating the costs of material and biological labor items included in the cost of livestock products;
- to determine proposals for reflecting in the management accounts the write-off of material and biological labor costs, the cost of products and their unrealistic (unreal) deviations that distort the financial results from its sale;
- development of methodological aspects of control of labor, material, biological and financial expenses for production of products in dairy farming;
- determination of summarization methods and reporting forms to provide managers of agricultural enterprises with information on material, biological, labor and financial costs for the development, adoption and execution of operational, tactical and strategic management decisions [5].

Full understanding of the nature and composition of production costs in animal husbandry specialization is of great importance in finding a solution to the above-mentioned problems.

"Production costs in dairy farming are divided into basic (technological) and organizational-management (overhead) costs in relation to the production (technological) process. In practice, other criteria for grouping costs can be used: according to the volume of production (variable, conditional variable, mixed and constant); in relation to planning (plan-normative, real, deviation from plan-normative) and others" [6].

In dairy farming, it is advisable to ensure that the accounting process is carried out based on the following principles and rules:

- "- provides control over compliance with the regime of cost saving and appropriateness of the performed economic transactions in terms of their economic content and legal basis;
- selection of cost accounting objects, calculation object and calculation units, as well as production accounting (process and other) methods and their use in optimal connection with the cost (full or variable cost) accounting system;
- to create their progressive nomenclature in the financial and management account by using the methodical methods and operations of the general system of accounting of the elements and items of expenses;
- application of its data in the management of economic processes based on increasing the efficiency of management accounting communication according to the "preliminary accounting-production accounting-management accounting system-management system" scheme;
- to identify unused internal reserves and mobilize them for production in order to increase the productivity of livestock, reduce the cost of products, and increase their profitability [7].

Farms specializing in dairy cattle breeding should organize and implement the accounting process based on the above-mentioned principles and rules during the accounting of financial and economic activities and expenses.

"In this case, cost management falls on the management system (on the management apparatus, including the first-level managers - farm managers) for planning (production budgeting), control, analysis and decision-making of economic processes, the following actions are performed, such as collecting, measuring, registration, reflection, processing, interpretation, integration, generalization, registration and presentation of information about the costs, output and production of an agricultural enterprise" [8].

In order to increase the efficiency of the financial and economic activity of farms specializing in animal husbandry, it is necessary to organize management accounting and budgeting to ensure the consistency of information.

"When organizing and maintaining production accounting in dairy farming, these processes should be organized in such a way that providing the management system with useful information on the costs and results of the units' activities according to the "costs-output-results" model should be considered an important methodological aspect" [9]. The main elements of the content of such a management system are: forecasting, planning, standardization, accounting by responsibility centers,

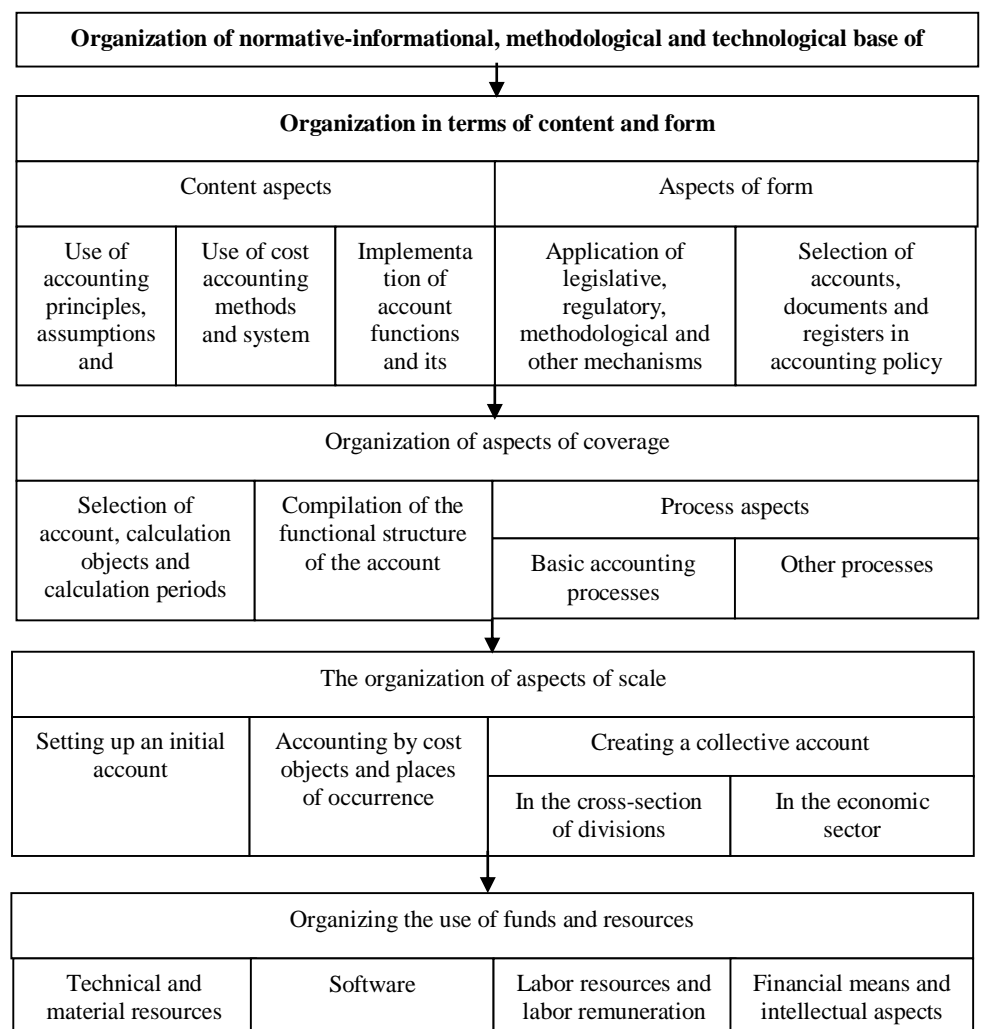
analysis of production activities, control and regulation of production processes.

Based on the organization of normative-informational, methodological and technological base of management accounting in dairy farming, it is appropriate to organize analytical and synthetic accounting based on the following methodological aspects (Figure 3).

Accounting of costs by calculation items provides calculation of the cost of a product (work, service) unit, to determine their efficiency and competitiveness, to determine the factors that influenced the formation of this level of cost, as well as allows to search for ways to reduce costs or optimize the cost structure of products (work, service).

In order to obtain the necessary information used in making management decisions and to form financial and management reports, it is appropriate to group the accounting of costs in animal husbandry by the following elements and items (Table 2).

Today, business entities need to prepare reports that are integrated with international financial reporting standards. Therefore, if the rules, principles and requirements of IAS No. 41 "Agriculture" in the field of accounting and reporting are applied on the farm, or if the structural structures in this farm operate on the principles of self-control and self-government as centers of responsibility, then the products of the unit in economic accounting instead of the standard (current) registers of analytical accounting, it is necessary to use analytical accounting (production and management report) to control and evaluate the effectiveness of cultivation [10].



**Figure 3. Organizational aspects of management accounting processes in animal husbandry**

This register is simultaneously an analytical account register of costs and product output, control and analysis, and a production-management report of the division (responsibility center). This register (report) should be adapted to account automation and include three sections. Section 1 considers the plan and actual costs. At the same time, differences of actual costs from planned costs are shown for cost items, production objects, year periods and related accounts.

In section 2 of this register, the amount of work performed, in particular, the number of animals in breeding, is indicated in the main indicator. The volume (amount) of livestock products in 100 kg, types of livestock, including dairy cattle, meat cattle, and other information are provided. At

the same time, this section of the register provides information such as the cost, real value and internal transfer prices of each type of product. Section 3 of this register reflects the evaluation of the final results of production, including biological, labor, and material resource utilization, and the activity of these responsibility centers (structural units).

Table 2

**Elements and items of accounting of production costs in animal husbandry**

№	name of expenses	Expense items in financial accounting	Expense items in management accounting
1	2	3	4
1	Labor costs		
	1.1. Paying for labor, including:	+	+
	a) payment of basic labor	-	+
	b) payment for additional work	-	+
	c) payment of labor in kind	-	+
	g) other payments from the labor compensation fund	-	+
2	Material costs	+	-
	2.1. Medicines to protect livestock from diseases	-	+
	2.2. Oil products	-	+
	2.3. Fuel and electricity (for technological purposes)	-	+
	2.4. Depreciation of fixed assets	-	+
	2.5. Costs of repair and maintenance of material means of labor (fixed means).	-	+
	2.6. Costs of auxiliary production works and services	-	+
	2.7. Other material costs	-	+
3.	Biological costs	+	-
	3.1. Food costs	-	+
	3.2. Depreciation of biological assets	-	+
	3.3. Other biological costs	-	+
4.	Finance costs and overheads, including:	+	-
	4.1. At the unit level		
	c) general farm expenses	-	+
	4.2. Entirely in the enterprise section		
	a) social allocation for production workers	-	+
	b) insurance payments and other financial expenses	-	+
	c) general production costs	-	+
	g) General expenses	-	+
	The sum of expenses for groups 1-4.2 forms the full production cost of the product for the enterprise	in livestock farming	in livestock farming

Explanation. The social tax calculated on production employees is reflected separately in the structure of labor costs (group 1) in traditional accounting, and is reflected in the structure of financial costs and overtime costs (group 4.2) when accounting for the formation of responsibility centers and their activities.

Practical use of this register (production-management report) significantly improves cost management accounting, analysis, and evaluation of product performance indicators. On the basis of the register information presented below, operational (current) and tactical decisions can be made at the level of responsibility centers, as well as effective use of resources, reduction of product costs, and similar strategic management decisions at the enterprise level.

We will consider the approaches and views of economists and experts on what is reflected in this register.

"In the first part of this register (report), the detection of deviation (saving or overuse) by comparing actual and planned (normative) costs for each cost item of product (work, service) production is considered a positive methodological aspect. From these deviations, the location of the deviations, the reasons for the responsible persons, and the decisions to eliminate the negative deviations of the actual production costs from the planned (normative) amounts are immediately

(immediately) determined.

In the second part of this register (report), as a result of accounting for output at cost, fair value and transfer prices, indicators of the use of production reserves (fundamental return, material return, labor productivity, etc.) can be determined depending on various methods for assessing the gross product" [2].

At the same time, it allows to compare the actual full cost of the gross product and the cost of production, to determine the financial results according to IAS No. 41 "Agriculture". Operating profit (loss) is determined by comparing gross profit with transfer prices and production cost. Operating profit (loss) is determined at the level of responsibility centers, as well as at the level of the enterprise, by comparing the gross product at transfer prices and production cost prices.

In order to assess the real value of dairy products, it is necessary to first determine the real value of 1 centner of this type of product (1 t of milk, live weight gain of cattle, live weight of offspring) in the region (district, region). It is recommended to use the following formula:

$$RV = AMPM - SC, (1.2)$$

Here:

AMPM - the average market price of 1 t of milk during the reporting period for a specific direction of milk product sales, soums;

SC - costs of selling 1 ts of milk in the enterprise, soums.

In 2022, the market (sale) price of 1 ts of milk at Azizjon farm is 320,000 soums, and the cost of selling 1 ts at the farm is 20,000 soums [11].

Here  $RV = 320,000 - 20,000 = 300,000$  soums.

In order to calculate the real value of the offspring obtained in dairy cattle breeding by 1 kg of live weight, the following formula is recommended

$$RVLW = MVLW - CSL, (1.3)$$

Here:

MVLW - the average market value of 1 kg of live weight of this species (livestock group) according to specific sales directions (channels, places), soums;

CSL - cost of sale of this type (this group) of livestock at the expense of 1 kg of live weight, soums.

The average market (sale) price of 1 kg of cattle at Azizjon farm is 4,200,000 soums, and the cost of selling per 1 kg of live weight of cattle is 200,000 soums.

$$\text{Here } RVLW = 4,200,000 - 200,000 = 4,000,000 \text{ soums.}$$

In order to evaluate the product obtained in dairy farming according to the internal transfer prices, it is recommended to determine the transfer price (Mtp) of 1 ts of product (milk, live weight gain of cattle, live weight gain of offspring) using the following formula:

$$Mtp = RV \times (VPC : FullC), (1.4)$$

Here:

RV - the real value of this product (milk, live weight of cattle, increase in live weight of offspring) 1 ts, soums;

VPC - this product (milk, etc.) 1 ts variable production costs, soums;

FullC - product (milk, etc.) full cost of 1 tsp, soums.

1 ts in the farm "Azizjon". real value of milk - 300,000 soums, 1 ts. variable production cost of milk is 260,000 soums, full production cost of 1 ts of milk is 330,000 soums. From here  $RV = 300,000 \times (260,000 : 330,000) = 236,364$  soums.

*After the evaluation of the product obtained in dairy farming, it is reflected in the accounting as follows: Debit 2810- "Finished products in the warehouse" account, Credit 2010- "Main production" account - when accounting for the real value of the product (milk, offspring, live weight gain); Debit 9110- "Cost of finished products sold" account, 2810- "Finished products in warehouse" account - to the actual cost of the product (milk, live weight gain of offspring).*

Further, at the limit of the actual sale of products in animal husbandry, its true value constitutes the cost of the product, potential profits and losses are transformed from the usual types of activities into actual financial results by reflecting them in the accounting accounts: account debit 9910- "Final financial result", 9110- "Cost of finished products sold" » account credit - to the amount of the loss; Account 9010- "Income from the sale of finished goods" is debited, account 9910- "Final financial result" is credited to the amount of net profit.

### Conclusion

It is necessary to regulate the production of finished products in order to increase economic efficiency, including profitability, based on rapid analysis and control of production costs in animal husbandry. Accounting is a source of information for the implementation of the indicated functions of management. Accounting must provide the company's management and specialists with operational, reliable and timely information to manage production.

This means that it is necessary to introduce progressive forms and methods of management accounting, which is a separate branch of accounting.

"Implementation of such an integrated system of providing management with information in animal husbandry requires the following:

- improvement of the initial documents on the account of livestock expenses and received products;
- automation of methods of keeping analytical management account of livestock expenses and obtained products;
- use of the above-mentioned forms of the production-management report, which provides the internal production management system with reliable and useful control-analytical data for management decisions on increasing the efficiency of production in animal husbandry" [1].

The value formed in the formation of production costs and the cost of products, as well as in the strategic management of labor productivity, represents not only the correct consideration of living labor, but also the materialization of labor in the production consumption of the value of long-term biological assets.

From here, there is an objective need to calculate depreciation for cows in the main herd of dairy farming, because in the process of their exploitation, there comes an age period when productivity begins to decrease, and the fact that the decrease in productivity is the physical aging of livestock is reflected in IAS No. 41 entitled "Agriculture".

According to National accounting standards (NAS) No. 5 entitled "Fixed assets", depreciation is not calculated for productive animals. However, according to IAS No. 41, the main task is to calculate and take into account the depreciation of biological assets, that is, productive livestock, in the structure of expenses in the formation of accounting policy in agricultural enterprises. Among all the methods of calculating depreciation in relation to livestock in the dairy sector, the one that is economically based is the method of calculating proportional depreciation in relation to the volume of the product, or another option can be used.

Thus, adequate study and analysis of the classification of costs in animal husbandry and the organizational aspects of management accounting processes are important in the organization of management accounting.

#### References:

1. Alborov R.A. Management accounting / R.A. Alborov. - M.: Business and Service, 2005. - 224 p.
2. Kontsevoy G.R. Development of management accounting and control of biological and total costs in agriculture: abstract of the sis. dis. Ph.D. econ. Sciences: 08.00.12 / Kontsevoy Grigory Rolanovich. -Izhevsk, 201 b. -24 p.
3. "Composition of costs of production and sale of products (works, services) and the regulation on the procedure for forming financial results" approved by the decision of the Cabinet of Ministers of the Republic of Uzbekistan No. 54 dated February 5, 1999.
4. Kontsevoi G.R. Razvitie upravlencheskogo ucheta i vnutrennego kontrolya tsikla formation zatrat i tsikla vypuska selskohozyaystvennoy produktsii / G.R. Kontsevoi // Vestnik Izhevskoi gosudarstvennoy selskohozyaystvennoy akademii. - 2016. - No. 2 (47). - S. 65-76.
5. Kontsevaya S.M. Management of costs, volumes and results of agricultural production. S.M.Kontsevaya, O.P.Knyazeva, E.V.Zakharova // Bulletin. Izhevsk State Agricultural Academy. - 2008. - No. 1(15). - P. 39-41.
6. Khoruzhy L.I. Problems of theory, methodology, methodology and organization of management accounting in agriculture / L.I. Horuzhy. - M.: Finance and Statistics, 2004. - 497 p.
7. Khoruzhy L.I. Management accounting and analysis of quality costs in agricultural organizations / L.I. Khoruzhy, Yu.N. Katkov // Accounting in agriculture. - 2013. - No. 8. - P. 56-65
8. Alborov R.A. Prerequisites and modeling of the development of management accounting in agriculture / R.A. Alborov, S.M. Kontsevaya, S.V. Kozmenkova // International accounting. - 2015. - No. 15 (357). - P. 37-51.
9. Bobrikova S.V. Organization of a rational model of management accounting of costs by responsibility centers / S.V. Bobrikova, E.L. Mosunova, O.O. Zlobina // Bulletin of the IPB (Bulletin of Professional Accountants). - 2015. No. 1. - P. 25-29.
10. International accounting standard (No. 41 of IAS) "Agriculture". <https://lex.uz/uz/docs/6312360>
11. Calculated by the author on the basis of the accounting data of 2022 of farmer "Azizjon" of Kibray district.