

**Improving the accounting of income and expenses at agricultural service enterprises**

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**Abstract**

The article discusses the effectiveness of the organization of internal control of the agricultural industry. It depends on a reasonable delineation of powers, existing and introduced services, the separation of incompatible functions that include direct access to assets, permission to carry out operations with assets, immediate implementation of the transaction, and reflection of business transactions in accounting.

Thus, compliance with the principles will improve the quality of the implemented internal control system at an agricultural enterprise and, as a result, will ensure the quality and reliability of accounting data for income, expenses and financial results.

**1 Introduction**

Sustainable development in the future of the agro-food sector of the Republic of Uzbekistan requires the implementation of state policy in the field based on new approaches. The Strategy for the Development of Agriculture of the Republic of Uzbekistan for 2020-2030 serves as the basis for implementing these tasks. [1,2]

An essential factor in ensuring the competitiveness of agriculture is the development of value chains. The high costs of collecting, transporting, storing, processing, packaging and certifying products from the field to end consumers reduce the profits generated by agricultural producers.

The low level of development of the food industry limits the possibilities for increasing the production volume with high added value.

Attracting investment in infrastructure development requires strong financial markets, a supportive business climate, and measures to support producers and promote value chains.

Limited opportunities for processing and packaging products in dehqan farms that produce the bulk of exported fruits and vegetables lead to significant losses. However, seasonal price fluctuations and volatility in market conditions also negatively affect their activities.

In recent years, small producers have been actively investing in modern storage facilities and processing equipment through various sources of financing, including credit lines from

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international financial institutions. Despite this, they remain largely isolated from the processing industry and exporting organizations.

Due to the underdevelopment of effective mechanisms for uniting small agricultural producers, their activities remain unorganized. It impedes the achievement of high economic performance and limits the possibilities of combining in value chains.

It should be noted that the share of cooperatives in the markets of developed countries (European Union, USA, Canada) exceeds 40 percent, and in Uzbekistan, this direction is only developing.[3,4]

There is a shortage of laboratories, wholesale markets and logistics centres that meet international standards and quality requirements and equipment at customs and border points for phytosanitary control of horticultural products.

It, in turn, prevents an increase in the volume of manufactured and sold products, an increase in added value and diversification of types of products and geography of exports.

It is necessary to ensure the safety and quality of agricultural and food products by bringing the national legal framework for sanitary and phytosanitary control in line with the requirements of the World Trade Organization and the standards of international target markets.

Also, partnerships between procurement, processing enterprises and exporters with dehqan farms and owners of household plots, which account for more than 70 percent of gross agricultural output, are underdeveloped.

The main goal of this strategic priority is to increase the export potential of the agricultural sector, increase the volume of value-added products, the widespread introduction of a certification system based on international standards and the development of cooperation mechanisms.

The following tasks were identified to achieve these goals:

- organization of short-term, including distance training for specialists in horticultural and greenhouse farms, development and distribution of teaching aids;
- harmonization of the national plant protection and quarantine system with the requirements of the World Trade Organization Agreement on the Application of Sanitary and Phytosanitary Measures;
- bringing the national system of animal health protection and control of livestock production under the standards of the World Organization for Animal Health (OIE);
- creation of an Innovation Education Center to support the development of value chains in agriculture based on international best practices;
- development of mechanisms to promote the implementation of quality standards recognized in international markets (Global GAP, Organic, HACCP, etc.);
- development and implementation of feedback mechanisms with leading agricultural enterprises;
- setting priorities for negotiating and implementing trade agreements in new target export markets;
- assessment of opportunities for expanding the use of the "Made in Uzbekistan" brand to promote domestic food products in target export markets;
- increasing the role of diplomatic missions of the Republic of Uzbekistan in the process of collecting information on target markets and in promoting trade in agri-food products;
- improving the services provided by the Center for Crop Variety Testing, creating a National Gene Bank for storing new plant species;

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- the widespread introduction of market mechanisms in the production of raw cotton and the cotton-textile sector;
- joining the International Plant Protection Convention (IPPC);
- creation of a special laboratory for testing genetically modified plant varieties with the involvement of funds from international financial institutions;
- improving the pesticide registration system and maximum permissible levels of pesticides (MRL) following the International Plant Protection Convention and other relevant international standards, providing information to exporters and producers;
- stimulating cooperation between agricultural producers and developing measures for their integration into modern value chains in the domestic and international markets;
- development of a strategy for increasing exports based on the results of assessments of the horticultural and livestock sectors (initially for the main 10-15 types of exported products based on the analysis of long-term data and market trends);

## **2 Materials and Methods**

The farming movement will become a significant producer of agricultural products and take responsibility for further developing the farm sector and other related industries and improving the population's living standards, becoming a powerful socio-political force.

In Uzbekistan, agriculture has rightfully become the leading link in agricultural production, the main form of its organization. Currently, the farming movement unites more than 80 thousand farms. More than 90% of all arable land in the country, the bulk of agricultural production falls on farmers.

The livestock sector meets the demand of the population for milk, meat and other food products and industry for raw materials. In recent years, the development of farms specializing in animal husbandry, including dairy, has increased production, increased labour productivity, improved product quality, and reduced costs.

Livestock is an important branch of agriculture and crop production, including dairy, meat cattle, sheep, pigs, horses, poultry, beekeeping, rabbits, silkworms, fisheries, etc. In turn, each of these industries includes certain industries that specialize in the cultivation of certain types of products: cattle breeding - dairy farming and beef, poultry – eggs and diet meat.

Accordingly, the costs of livestock vary by industry and type of production. It should be reflected in the accounting.

As in other industries, livestock production costs are different. These include various material costs (food, bio preparations, medicines, various materials, etc.), labour expended, depreciation of fixed assets, and more. It means that accounting should ensure that livestock costs are strictly accounted for by type.

The circular flow of funds in animal husbandry has more important differences and features than in agriculture. The technological processes here are characterized by the uniformity of operations, such as feeding and care of livestock and releasing the product. Moreover, all these operations are not strictly limited in terms of time, as in crop production, because a fair uniformity characterizes the technological production process in the livestock sector. All of these features, of course, affect the organization of cost accounting. [7,8]

In dairy farming, as long as there are no long interruptions in expenditure and output periods, all costs for the current year will be attributable to production in that calendar year. It means that in accounting, there is no need to differentiate the costs of dairy and meat farming

over the same years as they are accepted in agriculture. All costs in the livestock sector are reflected in the accounts for the current year's output.

There is no difference between the work done in animal husbandry and the work done in agriculture. Simultaneously, the technological process of production is characterized by the uniformity of the work performed (feeding livestock and production). All this work is usually continuous and not limited in time. Hence, there is no need to divide the expenses in the accounting into sections according to these characteristics.

Finally, in livestock production, the production process is usually concentrated. For example, milk production in dairy complexes, etc. Therefore, there is no need to account for costs in individual production units.

Thus, there is no need to divide costs in animal husbandry into several important criteria: by the years of production, by type of work, and sometimes by production units. Cost differentiation and relevant final data should generally be provided in two ways [5, 6]:

- by main types of products and groups of livestock;
- by main types of expenses.
- When production is divided, costs vary by farm.

Differentiation of costs on the first criterion is provided by the correct organization of the objects of analytical accounting. Objects of analytical accounting of expenses are opened on the main branches of animal husbandry and within the branch – on each type of production or livestock group.

The distinction between the secondary characters is made possible by the proper compilation of account registers. Cost accounting is performed in multi-column registers with a separate column for each cost sector.

Production costs occur mainly in the production process, which links the supply and sales processes. The emergence of the procurement process leads to production costs. Based on this and the production costs, the financial results of the enterprise are determined. Low farm production costs increase profits. Therefore, production costs are primarily necessary to determine the financial results of the enterprise. It can be summarized as follows:

### **Revenue from product sales – costs = profit**

Cost information is essential in calculating corporate income tax. From the enterprise and its management, it is necessary to collect information on the total cost, effective and inefficient costs of individual production units, etc.

From the point of view of farms and their management, it is necessary to collect information on the total amount of costs, efficient and unproductive costs of individual production units, etc. On this basis, the following tasks are faced in the calculation of costs:

- a timely and complete accounting of all costs associated with the activities of farms;
- provide reliable information sufficient to accurately reflect expenditure information in separate accounts and reporting forms accurately and calculate taxes.

It is sufficient to account for costs based on financial accounting principles, particularly double-entry bookkeeping, to perform these tasks. The most important feature of a managed account is that its data is helpful for management. In particular, the management accountant should provide detailed information about costs so that it can be used to make the most appropriate management decisions. Based on international experience in this field, the company should compile cost accounting information in the following cases:

- accounting for expenses by their place of origin;

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- organization of cost accounting by responsibility centres;
- aggregation of costs by objects of their origin or their carriers, i.e. by specific types of products.

There are various costs for producing livestock products: wages, fodder, depreciation of livestock fixed assets, medicines, insurance premiums, work and services, and other costs. These costs are divided into fixed and variable costs:

- Fixed costs include costs that do not change with the volume of production or changes in output;
- These include depreciation of property, plant and equipment, insurance premiums, rent and other expenses;
- These remain the same as the volume of production changes;
- Variable costs include costs that change as output increases.

Examples include wages, feed, labour and services, and similar expenses. These increase as production increases, and vice versa.

Besides, the costs of the livestock sector are divided into direct and indirect costs. Such a division is a division based on the addition to the cost of the product, and direct costs include costs incurred directly on the cost objects. These include proper wages, fodder, work and services, and other expenses.

Indirect costs are included in the total production costs of livestock, which are first recorded in account 2510 "General production costs" and then distributed at the end of the year by the objects of livestock costs.[9,10]

There is no need to use different methods of accounting for costs in the livestock sector. All the necessary information is obtained through the usual creation of analytical accounts and accounting registers.

The main tasks of cost accounting in the livestock sector are:

- cost-effective allocation of costs by type of production and groups of livestock;
- clear separation of all costs, which form the cost of production, by economic elements and industries of the same type;
- timely accurate and complete coverage of livestock milk and meat production;
- reflect the costs by business units;
- economic calculation of the cost of main, secondary and ancillary products.

Complete and timely accounting of production costs and products on farms and the reliability of accounting data largely depends on the organization and maintenance of the initial account. Initial accounting is one of the accounting features, which is directly related to the processing of documents. The initial calculation consists of the following three elements:

1. Preliminary accounting documents.
2. Income book of the materially liable person.
3. Report of the materially responsible person.

## **3 Results and Discussion**

Proper and timely documentation of production costs ensures the effective operation of management accounting on the farm. At the same time, the possibility of planning production activities based on accounting data will increase. According to table 1, we have the following results:

Table 1

**Key targets and indicators favourable agribusiness climate and value chains**

<b>№</b>	<b>Indicator names</b>	<b>Basis 2020</b>	<b>Target for 2021</b>	<b>Target for 2022</b>
1	Share of exports of products produced through partnerships of agricultural enterprises and associations	15 %	23 %	30 %
2	Introduction and promotion of the brand of agricultural products in Uzbekistan	Coverage of 5 additional products	Coverage of 20 additional products	Coverage of 40 additional products
3	Improvement of Uzbekistan's position in the World Bank's ranking of the Global Logistics Performance Index	96th place	89th place	79th place
4	Increase in the share of processed products in total exports	30 %	35 %	40 %
5	The share of people employed in the food and light industries (as a percentage of the total number of jobs in agriculture)	10 %	15 %	20 %

Farms independently formulate accounting policies based on the needs of their business activities. Farms carry out accounting following a single methodological framework and procedures established by law. In this case, the farm can independently adapt the existing accounting registers to the characteristics of its activities, subject to the following requirements:

- single methodological basis (two-sided writing principle);
- interrelation of analytical and synthetic accounting data;
- comprehensive recording of all business transactions in the accounting registers based on primary documents;
- collection and systematization of primary document data on-farm management, control and analysis of economic activity, and indicators required to prepare financial statements.

The basis for the accounting of economic operations on farms is the primary accounting documents, which record that the operations were carried out and issue orders for their implementation. On farms, initial accounting documents are prepared at the time of business operations or immediately (without delay).

At the end of the year, the real cost of agricultural products is determined. In the livestock sector, as in the crop sector, the actual cost of basic and related products is determined, while the actual cost of additional products is not determined.

Before calculating the cost of livestock products, the accounting data on the "Livestock Production" [11] scheme is carefully checked at the end of the year. The total cost for each type (group) of livestock and the total amount of products produced during the year is determined. In this case, the correct distribution of costs by accounting objects, the correct accounting of person-hours, feed-days and feed units, not born in certain animal husbandry sectors (poultry, fisheries, beekeeping, camels). It is necessary to pay attention to the correct determination of

production volume, the correct reflection of the amount and value of the main, related and additional products received. [12, 13]

In the livestock sector, the main product is the type of product, and the main purpose is to obtain a specialized branch of animal husbandry. For example, the main products in cattle breeding are milk, meat, calves and overweight.

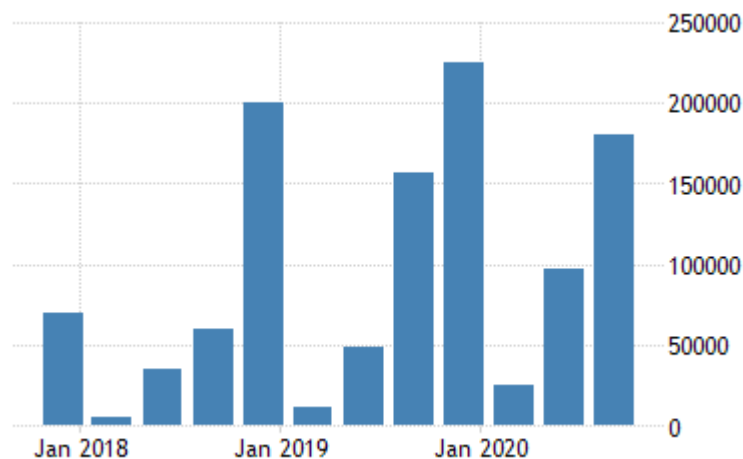
In animal husbandry, by-products are products obtained simultaneously as the main product but are secondary, such as manure, feathers, wool, hides, etc.

Many industries produce several types of related products at the same time. Therefore, the cost objects and the cost objects differ from each other, and as a result, the correct distribution of costs by product type need arises. Livestock by-products include manure, poultry manure, wool, feathers, skin, and moistened meat from dead animals.

The cost of manure is determined based on the normative costs of its collection and bedding under certain conditions and the cost of manure production and storage.

In the livestock sector, the main products include dairy products, main products - milk, related products – calves, by-products - manure, according to the analytical account of the main herd of dairy cattle.

According to the analytical account "Growing and feeding goods", [14] the main products – overweight, additional products – manure. Thus, the real cost of basic and related products in each sector of animal husbandry are determined. Additional products are valued at the planned cost or a marketable price (fig.1.).



**Fig.1. Uzbekistan GDP in Agriculture**

The determination of the actual cost has its characteristics for each sector of the livestock industry, and we will consider the determination of the cost in the field of cattle:

There are the following cost objects for cattle:

a) In dairy cattle:

1. The main herd
2. Young and domesticated animals.

b) In beef cattle:

1. The main herd and calves up to eight months old.
2. Calves older than eight months and dairy cattle.

The procedure for determining the cost of products for these cost objects is as follows:

1) Dairy cattle breeding. This network will have two cost objects (analytical accounts). According to the analytical account of the "main herd", milk and calves are the "object of calculation". Manure is a by-product and is valued based on its collection and field costs. The cost of manure is not calculated.

The manure cost is deducted from the total cost, and the remaining cost is divided into 90% milk and 10% calf, and the cost of these products is determined to calculate the actual cost of milk and calves from the main herd.

Agricultural enterprises can be joint-stock companies, partnerships, limited liability companies, cooperatives, unitary enterprises (municipal and state), peasant (farmer) enterprises and their associations. It also affects the organization of accounting in agricultural enterprises.

Objects of accounting in agriculture are: 1. property of the enterprise (fixed assets, inventories, intangible assets, financial investments, cash, etc.); 2. equity capital (authorized capital, additional capital, reserve capital, special purpose funds, reserves, retained earnings); 3. debt of other organizations (accounts receivable) and liabilities to third-party organizations and individuals (accounts payable, bank loans, loans); 4. business transactions carried out by enterprises in the course of their activities and causing changes in the composition of property and liabilities. [15]

The agricultural sector is distinguished from other sectors by the presence of many features that can affect accounting organization in the enterprise.

The main features of accounting at agricultural enterprises:

- to obtain finished products in this industry, the availability of natural resources is required;

- the main means of production is land; therefore, accounting of land and financial investments in them is necessary;

- agricultural production involves the use of biological assets (plants, animals) as specific resources;

- the unequal nature of the branches of agriculture and the changes occurring in them;

- seasonal products, which generally depends on climatic and weather fluctuations;

- several types of products are obtained from one culture or one type of livestock

- the need to differentiate costs in accounting;

- differentiation of cost accounting for production cycles that do not coincide with the calendar year due to the length of the agricultural production process;

- the need to reflect in the accounting of the movement of products at all stages of economic turnover, since their products can be used within this stage;

- formation of an effective system for the allocation of state aid and control over its targeted and rational use;

- the use of a developed system of specialized industry documentation and a complex calculation system;

- the use of peasant labour, the placement of which is carried out in rural areas;

- clear organization of accounting for the availability and operation of various agricultural machinery and mechanisms.

#### **4 Conclusions**

Consequently, there are the following main features of accounting in agriculture, affecting the development of accounting for income, expenses and financial results:



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1. The primary means of production in agriculture is land. In the production process, it is necessary to ensure a clear and reliable accounting of the available land and accounting for investments to improve the quality and composition of land to increase fertility, develop new land to expand the sowing of crops. The land is a natural element. Therefore, various types of situations may arise that entail unplanned costs (combating the invasion of insects – pests, changing the composition of the soil from poor ecology in the area, etc.).

2. The specificity of the accounting of income, expenses, and financial results in agriculture is due to different industries and content (in crop production – sowing, watering, fertilization, harvesting, in animal husbandry – keeping a farm, feeding animals, growing live weight, milk yield, livestock walking, vaccination, the slaughter of livestock; fish farming - maintenance of water bodies, sowing fry, fattening, catching, etc.). Thus, the formation of income and expenses has its specific features, depending on the branch of the subject of agriculture.

3. Seasonality of production is associated with the climatic characteristics of a particular region. For example, the volume of crop production depends on the climate and a decrease or increase in costs related to this (in the arid areas, additional costs for irrigation, areas with weak and infertile soil for fertilization, etc.). In this regard, the accounting of income, expenses, and financial results are complicated because costs occur in one reporting period and the receipt of income in another reporting period. Moreover, it often happens that the expenses incurred exceed the income received and, as a result, the loss (crop decline, inflation rate, large volume of supply on the market of crops as a result of a harvest year).

4. Often, several types of products are obtained from one crop or one type of livestock. It requires the differentiation of expenses and incomes for each separate economic process (for example, expenses and revenues associated with: the sale of milk, raising young animals, etc.)

5. Agricultural production is a long process. For some crops and animals, expenses are carried out in the current reporting year, and products, and accordingly, incomes, are received only in the next reporting year (winter crops, fattening of young cattle, etc.). Based on this, cost accounting is differentiated according to production cycles that do not coincide with the calendar year.

6. Part of the products of our production goes into internal circulation for further processing: in crop production, part of the products goes to seeds, fodder for further processing; in animal husbandry, part of the production is used for fertilizers in plant growing, fodder for livestock. Therefore, it is important to clearly distinguish between income and expenses associated with each stage of promoting products of our production.

7. Finished products of animal husbandry and plant growing are partially used at the enterprise for reproduction. During the year, production should be kept at the planned cost since the actual cost can be calculated only at the end of the year.

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