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Biological Fixed Assets: Accounting And Management Problems Of Commissioning In Horticultural Enterprises.

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ABSTRACT

One of the main problems of horticultural enterprises is to increase the efficiency of biological fixed assets, as well as their proper accounting. The place of the agricultural enterprise in the agricultural business, its financial condition, competitiveness in the market depends on the correctness of the solution to this problem. Currently, orchards for fruit and berry crops are laid in the horticultural enterprises of Russia. Therefore, it will allow reaching the production volumes necessary for internal self-sufficiency, applying intensive, resource-saving technologies, and improving the quality of horticultural products. The market of fruits and berries in our country is developing very dynamically, it has great potential. The study is based on general scientific integrated and systemic approaches, methods of accounting, analysis, synthesis, induction and deduction. The work gives a definition of biological fixed assets, their accounting and reflection in the accounts. This model of reflection of biological fixed assets rather subtly indicates agrobiological features and accounting for perennial plantations. The work studied the technology of growing perennial plants, accounting for biological fixed assets, as well as their disposal. The results of the study can be used in the activities of agricultural horticultural enterprises. Accounting for biological fixed assets in agricultural (horticultural) enterprises should ensure the measurement of perfect business operations related to the cultivation of seedlings, the adoption and disposal of perennial plantations, their operation and reflection in the accounting registers.

Keywords: gardening, fruits, biological fixed assets, perennial plantings, exploitation, accounting.

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INTRODUCTION

Currently, work on the development of the horticultural industry is carried out in Russia; planting and cultivating perennial plantations requires both care and investment. A special group of capital investments in horticulture is the cost of planting and growing perennial plantings: orchards and berries. Horticultural enterprise for planting is better to use zoned high quality varieties of apple, pear, cherry, cherry, gooseberry, blackberry el cetera. Prior to the production of fruit and berry products, it is possible to lay approximately an area of 10-15 hectares of intensive type.

In the course of planting fruit and berry plants in agricultural (horticultural) enterprises, special gardening equipment and fertilizers are needed. Fruit trees and berry bushes in a horticultural enterprise are planted in the autumn after the end of the growing season, but until the soil begins to freeze. The next option for planting trees and shrubs in a horticultural enterprise is early spring after the land thaws. Transplantation of perennial plants is a great stress and burden on trees and shrubs. Under normal technological and weather conditions in horticultural enterprises, on a large scale, early commercial harvests can be obtained for 3-5 years after the planting of the garden [6].

Spring is the time for planting new gardens and renovating old ones. Many enterprises have questions at what distance from each other to plant seedlings of fruit trees and bushes of berry crops and what does it affect? It should be noted that the future harvest and the health of the garden depend on the distance between the seedlings.

Preparing for the autumn planting, it is necessary to make sure that the growing season of the current season is over: the buds are formed, and the shoots are woody along the entire length. If the vegetative cycle continues and the plant "does not sleep", then the probability of winter freezing of unformed shoots is high.

It is necessary to dig up the soil about one to two months before the intended tree planting. The most ideal option is to dig up or plow the soil in autumn, and begin planting in spring [11].

Selection of the desired varieties and hybrids of apple, pear, cherry, gooseberry for ripening begins after the plot for planting the garden is prepared. In each case, depending on the climatic zone of the location of the horticultural enterprise, the choice of variety for planting is determined by the catalog of zoned fruit and berry crops. The catalog lists the best-regionalized varieties for a specific area. For example, for the Cis-Urals, there are apple trees (Uralskoye Big, Kungurskoye Pineapple, Krymka Ziguleva, etc.), pears (Sverdlovskaya Rapid rim (Talitsa), Bere yellow improved (Berezhnaya), Zarechnaya Pear (Compact), etc.), cherries (Malinovka, Krasa Tatariya, Youth, etc.), gooseberries (Senator (Consul), Russian yellow, Spring, etc.). An agrarian (horticultural) enterprise can also take non-zoned varieties for planting perennial plants, if these varieties are promising, tested in other horticultural enterprises corresponding to the same soil-climatic zones. Summer and winter varieties of fruit trees, berry bushes of an agrarian (horticultural) enterprise are not recommended to be planted together, since these trees (bushes) are not mutually pollinated [9, 13].

The harvest is directly dependent on the amount of nutrition of the fruit tree, on the area of the soil from which the root system can extract it. The access of the sun to the fruits and leaves is also important. This is largely solved by the use of optimal landing patterns [12].

Currently, work on the formation of the Russian regulatory framework is underway in Russia. Problems of legal regulation of the accounting of fixed assets (including biological fixed assets) are essential for the organization and management of agricultural business. In the tax code of the Russian Federation, changes constantly occur to improve various issues, including tax accounting of fixed assets, in addition, accounting for these facilities is also subject to reform [9].

In accordance with IFRS for the reform of accounting, a draft Regulation on accounting "Accounting for biological assets" was developed. Improving the methodology of accounting in Russia assumes its change based on the principles of International Financial Reporting Standards. The basic basic principles and points of accounting in the agro industry are set out in IAS 41 "Agriculture".

The biological assets include live farm animals (adult productive and breeding cattle, young animals and fattening animals, poultry, rabbits, animals, etc.); agricultural plants (annual and perennial crops, perennial plantings); fish and live aquaculture objects, trees in forestry [1].

In accordance with the Tax Code, for tax purposes (tax accounting), fixed assets include objects whose value exceeds 100,000 rubles. In order to ensure the safety of these objects, proper control should be organized for their movement [2].

In accordance with PBU 6/01, property may be accepted as a fixed asset for accounting, which simultaneously satisfies the following conditions: the object is intended for use in manufacturing products, in carrying out work or providing services, for management needs of an organization, or for providing an organization for a fee in temporary possession and use or in temporary use; the object is intended to be used for a long time, i.e., a period longer than 12 months or a normal operating cycle if it exceeds 12 months; the organization does not assume the subsequent resale of this object; the facility is capable of bringing economic benefits to the organization (future income).

Fixed assets relate to production assets, as they are created and used in the production process. Fixed assets include objects that have been serving for at least a year and are worth more than a certain amount, depending on the price dynamics of the products of the capital-creating industries (Fixed assets include objects whose value is determined at a rate of fifty times the minimum monthly wage established by law). The cost criterion is distinguished as an additional criterion for assigning an object to fixed assets. Therefore, the fixed assets include objects whose value exceeds 40,000 rubles.

By grouping fixed assets in accordance with the All-Russian Classifier of Fixed Assets (OKOF) (for obtaining information for statistical generalization): residential buildings and premises; buildings (except residential) and installation, land improvement costs (buildings (except residential)); facilities; land improvement costs); Machines and equipment, including household equipment, and other objects (vehicles; information, computer and telecommunication (ICT) equipment; other machines and equipment, including household equipment, and other objects) of the weapon system; cultivated biological resources (cultivated resources of animal origin, repeatedly giving products; cultivated resources of plant origin, repeatedly giving products); costs of transferring ownership of produced assets; Intellectual property (research and development; exploration costs and mineral reserves assessment); software and databases (database software; originals of works of the entertainment genre, literature or art, other objects of intellectual property).

The composition of cultivated biological assets (resources) should be allocated biological fixed assets that should be considered separately.

Biological fixed assets are living (biological) organisms that are involved in agricultural production, while maintaining their natural form. As wear and tear occurs, the cost of basic biological agents decreases and is transferred to the cost of agricultural products produced using accrued depreciation. Biological fixed assets in horticultural enterprises include perennial plantings (trees, shrubs, etc.).

According to the Tax Code, and PBU 6/01, the useful life is set for each fixed asset, that is, the period of time during which this asset of the organization (enterprise) is able to generate income.

The characteristic of an intensive garden in a horticultural enterprise is the number of fruit trees per hectare, the density of planting more than 800 trees per 1 ha. Construction support and installation of drip irrigation in a horticultural enterprise significantly affect the productivity of plantations and the quality of fruits. The selection of varietal composition of plantings in a horticultural enterprise should be made taking into account the establishment of the intended purpose of fruit production (local consumption, export, processing), their agrobiological features, compliance with natural and economic conditions, ensuring cross-pollination of fruit crops [7].

In accounting of agricultural (horticultural) enterprises, all the costs of planting (creating) and growing fruit trees, shrubs (fixed assets) are allocated to a separate group of investments in non-current assets [3, 5], which account must meet the following requirements:

- timely, reliable and full reflection of all expenses incurred in horticultural enterprises related to the planting and cultivation of fruit trees, shrubs, etc.
- control in horticultural enterprises over the timely commissioning of young fruit trees, shrubs, etc.
- correct determination of the inventory value of perennial investments (fruit trees, shrubs, etc.)
- control of the availability and use of sources of financing long-term investments in horticultural enterprises (fruit trees, shrubs, etc.)

Pruning a young fruit tree affects its growth, the timing of fruiting, the size and quality of the crop. When forming the crown of the fruit tree, the main goal is the correct position of the skeletal branches and a strong stable pillar. Perennial plantings include shelterbelts and forest shelter belts; pome fruit plantations (orchards) on strong-growing, medium-growth, dwarf, seed, vegetative rootstocks, low-growing stands on clonal stocks; apple trees, etc.; stone fruit plantations: cherry, plum, sweet cherry, etc.; berries (strawberries, currants, gooseberries, raspberries, etc.) [4].

Fruit trees are pruned usually in spring or autumn. Autumn pruning of the garden is convenient because, the procedure is much easier due to the lack of foliage. In the autumn, the movement of juices in the tree slows down, so this pruning is effective. For example, pruning apple trees in November is carried out in order to improve the plant. The procedure begins after all the foliage in the garden will fall off. For example, a columnar apple should be cut at the beginning of summer or towards winter. Autumn pruning of apple trees is carried out by removing old, rotten, broken and damaged branches.

In a horticultural enterprise, the object of accounting for fruit and berry perennial plantings (inventory object) may be the total set of green plantings, isolated according to certain criteria: type, date of planting, number of trees (bushes), section (strip) number, area in square meters.

In accounting according to PBU 6/01, the horticultural enterprise establishes independently the useful life at the moment of taking the object for accounting as a fixed asset. The cost of planting and growing gardens, vineyards, forest shelter belts and other perennial plantations (fixed assets) are grouped by the cost items presented in Figure 1.

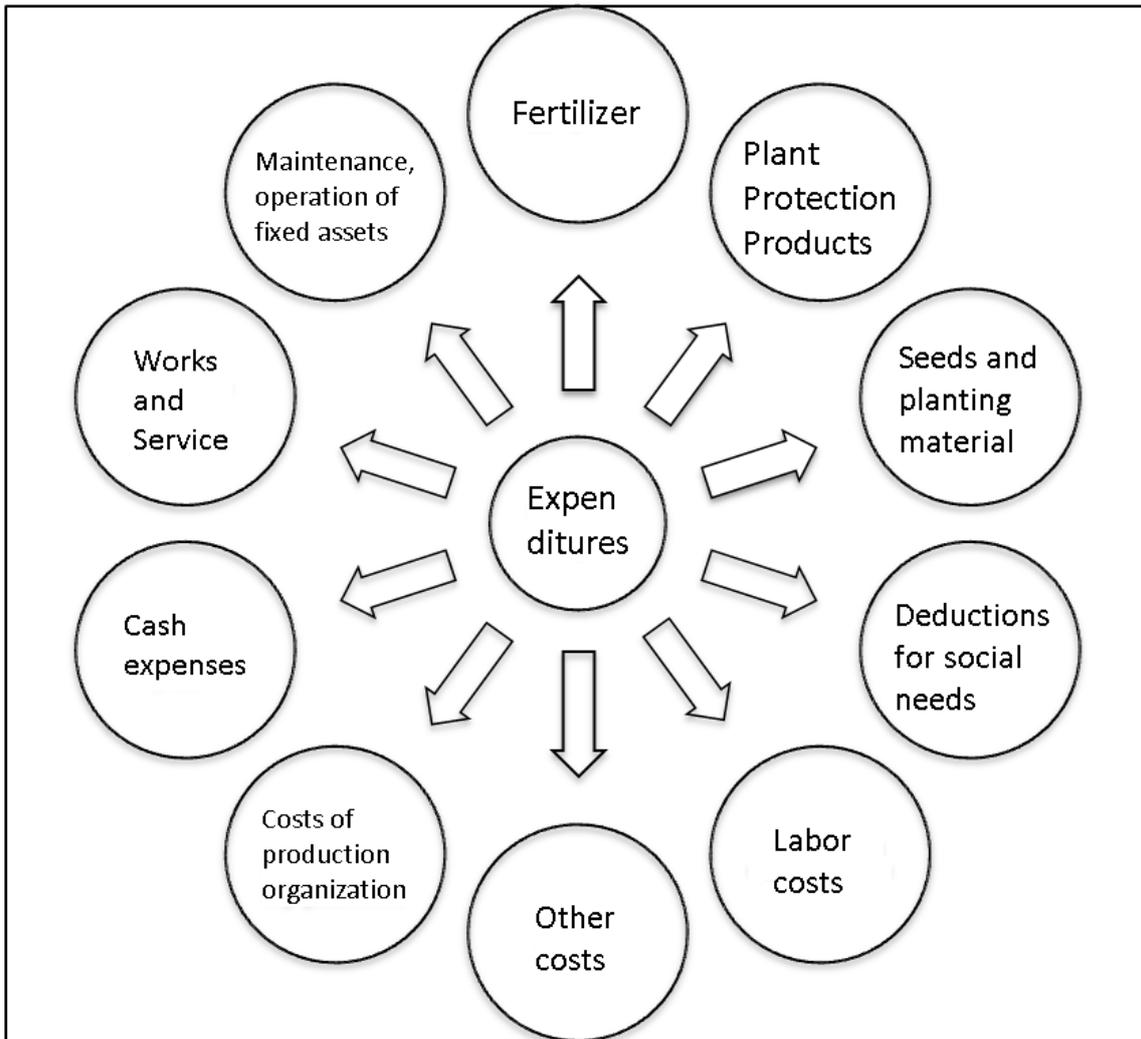


Figure 1: Cost items, taking into account agrobiological features for the cultivation of perennial plantations (biological fixed assets)

When an enterprise adopts an item of fixed assets for operation and accounting, it is assigned an inventory number regardless of the further form of its use.

Horticultural enterprises account for the planting of perennial plantations (fruit trees, shrubs) on account 08 "Investments in non-current assets". All information on investments of gardening enterprises in non-current assets on the tab of fruit perennial plantations is collected on this account, which later in the amount of actual expenses will be accepted for accounting as fixed assets. Analytical accounting in horticultural enterprises for planting fruit trees, shrubs (apples, pears, cherries, cherries, gooseberries, etc.) should be kept in the production report on their species, years of planting and location [8,10]. After completion of planting in horticultural enterprises, young fruit trees and shrubs in the amount of actual costs are taken into account in the fixed assets on account 01 "Fixed Assets", subaccount "Perennial Plantations", analytical account "Young Perennial Plantations" by species and years of planting. Operations on the accounting of fruit trees in horticultural enterprises are reflected in the registers: in the journal - warrant No. 13-AIC - on the movement of fixed assets; in the journal-warrant No. 16-AIC and analytical accounting sheets - on the reflection of capital investments and write-off of expenses on the establishment and cultivation of plantations.

Table 1: Business operations for the accounting of the cost of work performed on planting a garden, depreciation and write-off of biological fixed assets

No	Business operations	Offset accounts	
		Debit	Credit
Accounting to reflect the cost of work performed on planting a garden			
1	Planting material was released for planting a garden (apple seedlings of Uralskoye Big variety)	08 "Investments in non-current assets"	10/8 "Materials", subaccount "Seeds and planting material"
2	Organic fertilizers released for planting gardens (manure, humus)	08 "Investments in non-current assets"	10/2 "Materials", subaccount "Fertilizers, plant and animal protection products"
3	Work clothes are released for workers engaged in planting the garden (warm special waterproof clothing and warm special waterproof shoes)	20/1 "Primary production" subaccount "Crop"	10/11 "Materials", subaccount "Inventory and household supplies (useful life up to 12 months)"
4	Wages to employees engaged in planting a garden (apple seedlings of the Uralskoye Big variety) are accrued	08 "Investments in non-current assets"	70 "Calculations with staff on remuneration"
5	Insurance contributions from the wages of employees in the garden are assessed (apple seedlings of the Uralskoye Big variety)	08 "Investments in non-current assets"	69 "Calculations for social insurance and security"
<i>In a horticultural enterprise, the cost of perennial fruit and berry plantations is reflected in the fixed assets account of the final act of taking perennial plantations and putting them into operation (Form No. 404 -AIC) (after the onset of fruiting and shelter belts after joining crowns at least 5 years old).</i>			
6	The perennial plantings were taken into account in the composition of fixed assets (apple seedlings of the Uralskoye Big variety) - for the actual cost of planting of young perennial fruit plantations	01 "Fixed assets", subaccount "Perennial plantations"	08 "Investments in non-current assets"
<i>The cost of growing seedlings and caring for mature trees and shrubs in horticultural enterprises is recorded in account 20 "Primary production" in the production report</i>			
Accounting to reflect depreciation on biological fixed assets			
7	Accrued depreciation on fixed assets (fruit trees, shrubs, etc.)	20/1 "Primary production" subaccount "Crop"	02 "Depreciation of fixed assets"
<i>According to the accepted perennial plantings, depreciation charges are accrued in the gardening enterprise according to the established norms (according to the chosen depreciation method) by types:</i> - pome fruit plantations; - stone fruit plantations; - vineyards; - el cetera.			
Accounting to reflect write-off of fruit trees (biological fixed assets)			
8	Reflecting the write-off of perennial fruit plantations in the amount of the initial or replacement cost - pear trees of the variety Zarechnaya (Compact)	01 "Fixed assets", subaccount "Disposal of fixed assets"	01 "Fixed assets"
9	Fruit perennial plantings - pear trees Zarechnaya (Compact) are written off for the sum of accrued	02 "Depreciation of fixed assets"	01 "Fixed assets", subaccount "Disposal of

	depreciation.		fixed assets"
10	The amount of the residual value of retired fruit perennial plantations - pear trees Zarechnaya (Compact) (if they are not fully depreciated) is written off.	91 "Other income and expenses"	01 "Fixed assets"
<i>The act on the write-off of perennial plantations (Form No. 405-AIC) is used to write off fruit trees from the balance of horticultural enterprises</i>			
11	Written off expenses for the elimination of the garden - pear trees of the variety Zarechnaya (Compact) (uprooting, pruning, export, etc.).	91 "Other income and expenses"	23 "Auxiliary production", 70 "Calculations with staff on remuneration", 69 "Calculations for social insurance and security", 68 "Calculations for taxes and fees", etc.
12	When stubbing up perennial plantings - pear trees of the variety Zarechnaya (Compact), (firewood, brushwood, etc.) are obtained at the price of possible use or sale	10 "Materials"	91 "Other income and expenses"
13	A loss was received from the elimination of the garden of pear trees of the variety Zarechnaya (Compact)	99 "Gains and Losses"	91 "Other income and expenses"
<i>Young natural perennial plantings in horticultural enterprises that have been killed as a result of natural disasters are written off at their cost at the beginning of the year, with the addition of the cost of growing the current year until the fruit trees die in the following way - from account credit 01 to account debit 99</i>			

In accordance with regulatory documents, depreciation on biological fixed assets begins on the first day of the month following the month of accepting the objects for accounting, and termination begins on the first day of the month following the month of full repayment of the cost of objects or their write-offs accounting. In the production report of a horticultural enterprise, cost accounting is carried out for a month and on an accrual basis from the beginning of the year by type of cultivated plantings.

Fruit trees, berry bushes (biological fixed assets) are deducted from the balance of a horticultural enterprise when perennial plants lose their production value (agrobiological fruiting) or if they are meaningless because of thinning over 70 percent. In the care system of gardens, the elimination of the thinning of biological fixed assets (trees, shrubs) is of great importance. In a horticultural enterprise, it is necessary to care for a garden so that there are 100% of trees per unit area. The thinness of the gardens leads to a decrease in yield and an increase in the cost of fruits in the horticultural enterprise. If some fruit trees died in the garden, then new ones should be planted in time. Industrial gardens should be compacted from south to north, which will contribute to better illumination of fruit trees.

In a horticultural enterprise, write-off of fruit trees is reflected in the usual way. Accounting in horticultural enterprises should ensure prompt, reliable and complete flow of information on the quantity and cost of biological fixed assets (fruit perennial plantations).

Economic efficiency, organization and accounting of biological fixed assets (perennial plantings) in horticultural enterprises depends largely on making the right management decisions based on timely analysis and understanding of regulatory documents.

Table 2: The main directions of analysis of biological fixed assets for making management decisions

No	Main areas of analysis	Analysis tasks	Types of analysis
1	Analysis of the structure and dynamics of biological fixed assets (perennial plantations).	Estimation of the size and structure of capital investment in biological fixed assets; determination of the nature and size of the impact of the value of biological fixed assets (perennial plantings) on the financial position and balance structure	Financial analysis (study of key indicators)
2	Analysis of the effectiveness of the use of biological fixed assets (perennial plantations).	Analysis of the movement of biological fixed assets, analysis of indicators of the effectiveness of the use of biological fixed assets. Analysis of the use of time fruiting trees and shrubs. Integral assessment of the use of biological fixed assets (perennial plantings).	Management analysis (monitoring the effectiveness of the use of biological fixed assets and their agrobiological features)
3	Analysis of the cost effectiveness of the maintenance and operation of biological fixed assets (perennial plants).	Cost analysis for the elimination of thinness, analysis of the relationship of production, profits and costs for the operation of biological fixed assets (perennial plantings).	Management analysis (monitoring the cost-effectiveness of the maintenance and operation of biological fixed assets)
4	Analysis of the effectiveness of investments in biological fixed assets (perennial plantations).	Assessment of the effectiveness of capital investments, analysis of the effectiveness of borrowing to invest in biological fixed assets (perennial plantings).	Financial analysis (evaluation of investment attractiveness of biological fixed assets)

When planting biological fixed assets and maintaining the traditional accounting system, its managerial focus should be strengthened, first, by increasing the efficiency and analyticity of the information about perennial plantations and their agrobiological characteristics. Management should also be strengthened to make decisions during the production of agro-biological processes in accordance with technological features, based on the use of a combination of econometric and biological elements.

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