

DOCUMENTATION OF THE PRODUCTION PROCESSES OF ORGANIC CROP PRODUCTION

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Abstract. The subject of the study is the accounting system and in particular the system of documenting the costs of production of organic crop products. Economic and statistical research methods were used to analyze the state of organic production. General trends in the development of the system of accounting for production processes in organic crop production were studied using the methods of induction and deduction. The methods of theoretical generalization and comparison were used in the study to reveal the features, nature and content of organic production and its elements as objects of accounting. The method of observation was used to study the state of primary accounting of production processes in the field of organic crop production. The publication is devoted to the study of the state of primary accounting of the costs of organic crop production and the development of scientifically sound recommendations for agricultural enterprises to improve it. Organic agricultural production in Ukraine is one of the priority areas of development of the agricultural sector of the economy, based on the adopted National Economic Strategy for the period up to 2030. Initial observation is the only basis for the formation of information flows of management, financial, statistical and tax reporting, which is provided by continuous and continuous documentation of business transactions. As a result of the research, the directions of using the information of primary documents, which formalize the costs of organic production, are grouped. The functions of primary documents in the management of organic production are outlined. The necessity of creation of specialized forms of primary accounting of expenses of seeds, planting material, means of protection of plants, fertilizers as those which need special control in the course of production of organic products is substantiated. The organizational and technological features and specifics of control during the transition period, in terms of "pure" organic production and in terms of parallel production of organic and inorganic products, which should be taken into account when documenting costs. The general approaches to documentation of expenses are offered and the form of the Act on use of substances (ingredients, components) which is allowed to be used in the course of organic production and which are allowed to use in maximum admissible quantities is developed. The developed proposals will allow providing control over observance of the legislation in the field of organic production, to realize control and information functions of primary documents on the account of expenses of organic plant growing. Promising areas of further research on this issue are the development of a package of primary documents for other sectors of organic production and the formation of guidelines for documenting all its business processes, which will form the basis of information management system of organic production at all levels. and forming a strategy for its development.

Key words: documentation, primary documents, production costs, organic production, crop production, details.

JEL Classification: M11, Q10

1. Introduction

It is a well-known fact that Ukraine is a world leader in the production and export of agricultural products. The military aggression of the Russian Federation undermined Ukrainian agricultural production. According to forecasts, this year's grain harvest in Ukraine will be about 20% lower than in 2021. This is due to a significant reduction in sown areas. In the

context of hostilities in the country and the threat of food crisis, the problems of organic agricultural production have receded into the background. However, organic production is identified as one of the priority ways to achieve the strategic goals of the state for the development of the agro-industrial sector (National Economic Strategy until 2030, 2021). Due to favorable soil and climatic conditions, age-old

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agricultural traditions and, despite difficult economic conditions, in Ukraine over the past ten years there has been a positive trend in the number of certified operators of organic production, agricultural land, range of organic products; domestic and foreign markets for Ukrainian organic products are expanding; the legal basis for regulating the certification, production, labeling and circulation of such products is being formed. Organic production in an agricultural country like Ukraine is one of the key factors in solving environmental, economic and social problems. Therefore, a growing number of people are interested in obtaining information about the state of development of organic production, its costs, the cost of organic products and so on. The basis and basis of information support of management is the primary accounting. Further grouping, generalization and quality of information that will be used to meet the needs and requests of users depend on the initial display (documentation) of transactions. The purpose of the article is to study the state of primary accounting for the costs of organic agricultural production and the development of scientifically sound recommendations to agricultural enterprises on the documentation of accounting for the costs of organic production of crop products. Problems of organization of ecologically oriented activity of subjects of agrarian entrepreneurship and organization of organic agricultural production are the object of scientific research of leading Ukrainian scientists, including scientists of Vinnytsia National Agrarian University. Among them: G.M. Kaletnik (2017), I.V. Goncharuk (2017) and others. The organization and methods of accounting for the production of organic products are devoted to the research of O.A. Podolyanchuk (2018), Yu.S. Tsal-Tsalka (2019). However, the research of scientists on this issue is fragmented, unsystematic. The development of an information support system for all levels of organic production management needs attention. Lack of information about the organic segment of production leads to a slowdown in investment and, consequently, to a slowdown in its development. The formation of a comprehensive methodology for accounting for organic production should begin with the documentation of cost accounting and yield of organic products.

2. Survey methodology

Economic and statistical research methods were used to analyze the state of organic production. General trends in the development of the system of accounting for production processes in organic crop production were studied using the methods of induction and deduction. The methods of theoretical generalization and comparison were used in the study to reveal the features, nature and content of organic production and its elements as objects of accounting. The method of observation was used to study the state of primary accounting of production processes in the field of organic crop production.

3. Findings

The development of organic production in Ukraine is characterized by a fairly high rate (Table 1).

Demonstrating in recent years the steady positive growth of agricultural land, which is certified organic production, there is a steady growth in both the number of operators of the organic market and the level of consumption of organic products in Ukraine, which contributes to the tendency organic raw materials. These include cereals, flour, dairy and meat products, eggs, juices, honey, oils, teas and herbs. Official statistical reviews of IFOAM confirm that if in 2002 there were 31 farms registered in Ukraine that received the status of "organic", in 2020 there were already 549 organic operators, and the total area of agricultural land on which organic production is carried out was 462225 ha (Federation of Organic Movement in Ukraine. Organic in Ukraine, 2021) (Figure 1).

Most Ukrainian organic farms are located in Kyiv, Odesa, Kherson, Poltava, Vinnytsia, Zakarpattia, Lviv, and Zhytomyr regions. Ukrainian certified organic farms – of various sizes – from a few hectares, as in most European countries, to several thousand hectares of agricultural land. Given the growing number of small organic farms, their specialization is focused primarily on growing fruits and vegetables and berries. However, the export orientation of producers, especially legumes and berries, remains a fact.

Table 1

Dynamics of development of organic production in Ukraine

Indexes	Years						2020 to 2015, %
	2015	2016	2017	2018	2019	2020	
Number of operators of organic production, units	210	360	375	510	617	549	261
Total area of agricultural land with organic status and transition period, thousand hectares	410,55	411,20	420,00	429,10	467,98	462,23	113
Volumes of the domestic consumer market of organic products, million euros	17,5	21,2	29,4	33,0	36,0	38,0	2117

Source: Federation of Organic Movement in Ukraine. Organic in Ukraine, 2021

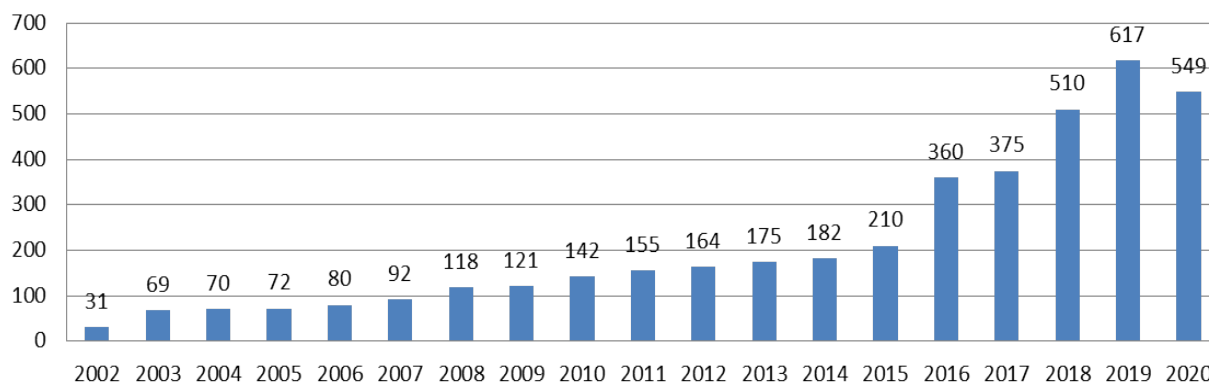


Figure 1. Number of organic operators in Ukraine

Source: according to IFOAM, the Federation of Organic Movement of Ukraine and the Ministry of Economy of Ukraine

In recent years, there has been a trend of actively filling the domestic market with domestic organic products by establishing their own processing of organic raw materials. According to the research of the Federation of Organic Movement of Ukraine, since the early 2000s in our country there has been a stable annual growth of the domestic consumer market of organic products, as shown in Table 1.

Among the target indicators for achieving the strategic goals of the agro-industrial sector are an increase in the area of land with organic status to at least 3% of the total area of agricultural land (up to 1.3 million hectares) and an increase in organic exports to \$ 1 billion by 2030 year (Federation of Organic Movement in Ukraine. Organic in Ukraine, 2021). One of the prerequisites for achieving the goals of the development of organic production and its proper functioning is to effectively meet the information needs of stakeholders, which is based on the primary accounting of all stages of organic production. Primary observation is the only basis for the formation of information flows of management, financial, statistical and tax reporting, which is provided by continuous and continuous documentation of business transactions.

According to the Regulation on Documentary Support of Accounting Records, primary documents are documents created in written or electronic form, which contain information on business transactions and are the basis for their further accounting. Mandatory details of primary documents are the name of the enterprise, institution on whose behalf the document is drawn up, the name of the document (form), date of compilation, content and scope of business transaction, unit of business transaction (in kind and/or value), position and name persons responsible for the transaction and the correctness of its design, personal signature or other data that allows to identify the person who participated in the transaction.

The Ministry of Agrarian Policy and Food of Ukraine provided clarifications on possible forms of

primary documents, which, in particular, states that given the martial law in Ukraine, in the absence of technical feasibility of printing the document, the entity may send electronic payment documents provided by consumers subscriber number or e-mail address. In addition, the business entity can reproduce a QR code on the display of the software registrar of settlement operations, which allows the consumer to read and identify it with the settlement document according to the structure of the data contained in it. Given the complexity of time, it is possible to provide consumers with payment documents in other forms. However, these documents must contain all the required details.

Thus, in the special conditions of economic activity, to ensure the continuity of documentation and the formation of optimal information flows, businesses can form primary documents in both paper and electronic form, using both standard and arbitrary forms. Arbitrary forms of primary documents must contain the mandatory details specified in the Regulation on the documentary support of records in accounting of 24.05.1995 № 88.

Given the organizational, technological and legal features of organic production, which we studied and covered in previous publications (Ishenko Ya., 2019), objectively there is a need to obtain and group information on selected objects of accounting in terms of costs of organic production, transition costs period and costs of inorganic production.

Primary documents are drawn up on forms of standard and specialized forms. However, it is envisaged that the documentation of business transactions can be carried out using self-made forms, which must contain the required details. The lack of developed standard documents for cost accounting and yield of organic products necessitates the independent formation of a package of primary documents by business entities. At the same time, the standards of organic production, the requirements of current

legislation on the production, circulation and labeling of organic products, production technology must be taken into account.

When modeling business processes of organic production and the formation of their regulations should take into account the use of cost information. Regarding the accounting support of all levels of government, the primary documents on the costs of organic production should contain information on the following areas of further use:

- operational analysis, internal control and management;
- external control (state control in the field of organic production, circulation and labeling of organic products by operators, control of certification bodies, control of buyers, etc.);
- formation of information for the purposes of financial reporting according to national and international standards;
- formation of information for tax and statistical reporting.

Therefore, each document must be well thought out and modeled. In a complex with definition of the list of documents it is necessary to form a substantial part of each document which is realized by definition of the necessary information for maintenance of all directions of its use. Under such an integrated approach, the primary document will perform control and information functions.

Implementation of the internal control function is ensured by initiating the operation, its resolution, setting the task, monitoring its implementation and recording the fact of the operation and the results of the task. The functions of external control in the field of organics are assigned to certification bodies (during the certification and inspection of production) and the State Service of Ukraine for Food Safety and Consumer Protection, which is responsible for state control (supervision) over compliance legislation of the market of organic products legislation in the field of organic production, circulation and labeling of organic products.

According to Article 4 of the Law of Ukraine "On Basic Principles and Requirements for Organic Production, Circulation and Labeling of Organic Products" (2018), organic production operators are required to certify their activities annually to confirm compliance with legislation in the field of organic production, circulation and labeling organic products. To this end, producers of organic products must cooperate with certification bodies and ensure unimpeded access of organic production inspectors to their facilities and sampling, and provide, at the request of certification bodies, documents required for certification of organic production, including access to financial documents. Accordingly, certification bodies have the right to require from the operator documents confirming compliance with the

provisions of the legislation on organic production. Such evidence is the primary documents reflecting the cost of production.

The implementation of the information function is ensured by including in the content of the document all the necessary information with the selection of its features in the areas of further use. Selection of features of information by areas of use makes it possible to group information for different levels of government, in different sections for the formation of reporting and analytical forms.

Given the requirements for organic production (Figure 2), when forming a package of primary documents, special attention should be paid to documenting the cost of production resources.

These requirements and prohibitions necessitate the creation of specialized forms of primary accounting of costs of seeds, planting material, plant and animal protection products, fertilizers to ensure effective control over the process of organic production. It is necessary to take into account organizational and technological features and specifics of control during the transition period, in terms of "pure" organic production and in terms of parallel production of organic and inorganic products.

In the context of both traditional agricultural production and organic production, businesses use specialized, as well as some standard forms of documents to document the operations of receipt, storage, movement and disposal of stocks. Thus, receipt of material values from suppliers is made out by invoices, payment requirements with the specification, consignment notes on the general bases. These documents should be registered in the form № M-1 "Journal of goods received".

During the transition period and in the conditions of parallel production of organic and inorganic products, enterprises need to organize separate storage of stocks for each of the types of production. Incoming accompanying documents should be marked, for example, "organic composition" and "inorganic composition".

In the case of parallel production, the operator is obliged to provide the certification body with documentary evidence of compliance with the provisions of Article 26 of Law № 2496-VIII and ensure:

- taking appropriate measures for the permanent separation of organic and inorganic products, the separation of organic and inorganic animals;
- separation of manure and feed;
- proper cleaning of production equipment for technological operations with organic products;
- submission to the certification body of information on the amount of produced organic products and products of the transition period, inorganic products;

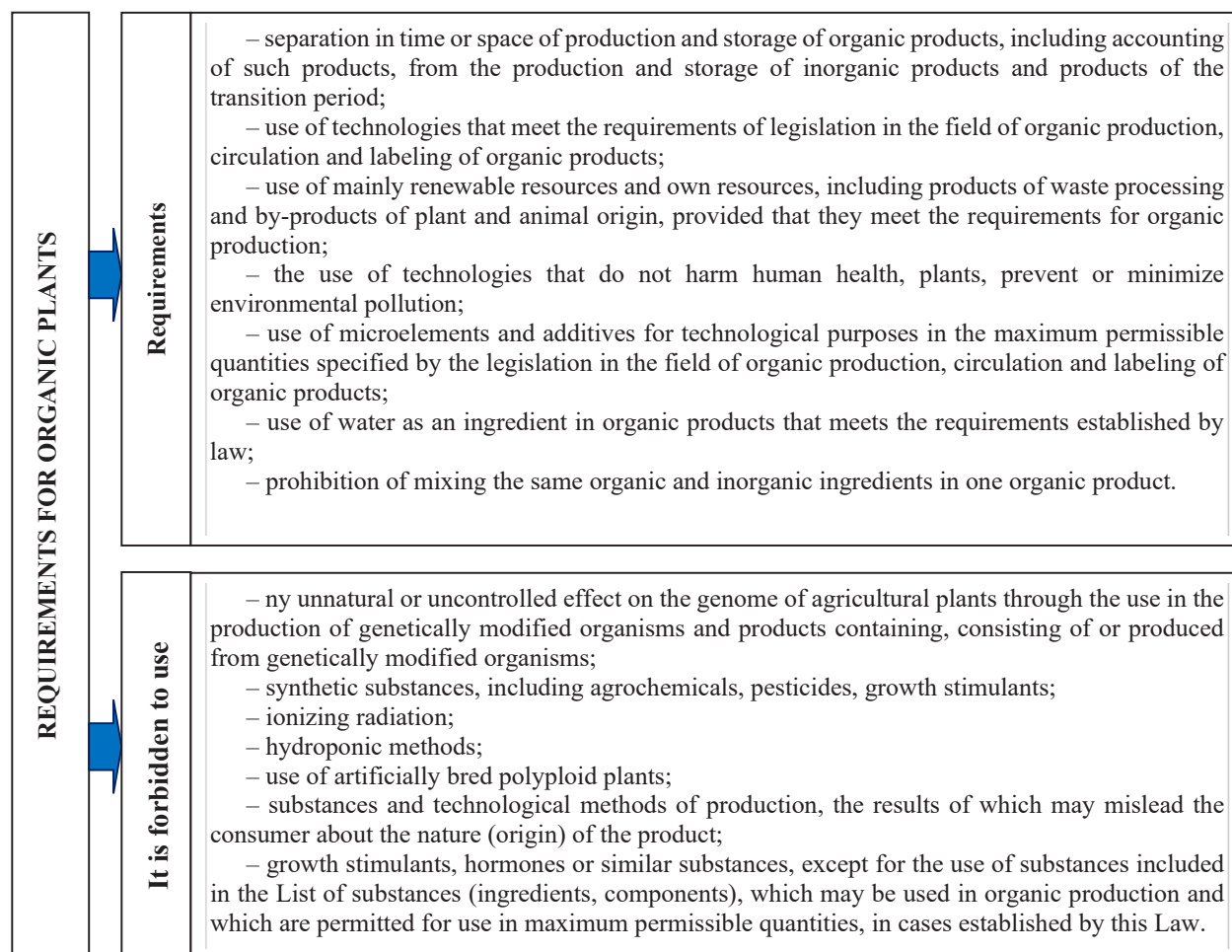


Figure 2. General requirements for organic crop production

Source: formed by the authors on the basis of the Law of Ukraine "On Basic Principles and Requirements for Organic Production, Circulation and Labeling of Organic Products" dated July 10, 2018 №2496-VIII

- submission of information on harvesting to the certification body not later than two working days before the beginning of harvesting;
- submission to the certification body of information on any movement or sale of animals, livestock products;
- submission of information to the certification body on the harvest, livestock and livestock products and measures taken to separate organic and inorganic products.

To provide documentary evidence of these measures to the standard and specialized agricultural forms of primary documents, it is necessary to enter additional details. It is advisable to form additional forms of documents that are necessary to confirm compliance with the law, but are not in the list of already developed forms. One-time release of materials, feed, seeds, fertilizers, plant and animal protection products, raw materials, spare parts and other inventory items for use or movement on the farm is carried out on invoices (domestic). The invoice is usually issued in two copies, one of which is transferred to the warehouse, and the other – to the recipient of valuables.

At systematic release of materials instead of one-time invoices use the accumulative document – a limit-withdrawal card for reception of material values. After application of mineral, organic and bacterial fertilizers and chemical plant protection products for each field in the context of crops, an Act on the use of mineral, organic and bacterial fertilizers, pesticides and herbicides is drawn up.

To control compliance with the requirements of organic production in these primary documents should include details that allow you to identify the used material values, as allowed or allowed in the maximum allowable quantities. For this purpose it is expedient to indicate in additional columns the section and number of used substances, ingredients, components according to the List № 1073 from 09.06.2020 and which are allowed for use in the maximum allowable quantities (Figure 3).

Organic crop production requires the use of organic seeds and organic planting material for sowing. In order to obtain organic seeds and planting material, the mother plant and other plants must be propagated

in accordance with the requirements of organic legislation for at least one generation, and for perennial crops for at least one generation and two growing seasons.

To write off seeds and planting material to the costs of growing the respective crops, a specialized form "Act of consumption of seeds and planting material" is used. In the specified document in the conditions of organic production, besides standard requisites, it is necessary to specify additional information:

- on which lands sowing was carried out (certified for organic production, transition period);
- specification of the purchased sowing material as one grown in the conditions of organic production;
- section and number of used substances, ingredients, components according to List № 1073, which were used for seed treatment from diseases and pests.

Organic operators are obliged to provide separate storage and special conditions for transportation of

organic products. For this purpose it is necessary to organize a separate warehouse and separate warehouse accounting of organic plant products obtained from production. Such requirements are defined in the Law of Ukraine "On Basic Principles and Requirements for Organic Production, Circulation and Labeling of Organic Products" (2018). In particular, the Law requires that during the storage of unpackaged crop products to ensure accounting and identification of such products and each batch as organic and to prevent its mixing with inorganic products, including products of the transition period, as well as with pollutants.

Immediately before sending the product, samples are taken for its laboratory analysis. After confirming the quality of the product, it is packed and sealed. Unpackaged organic products should only be transported in sealed packaging, containers or vehicles closed in such a way as to prevent opening without

«I APPROVE»

Initials signed by the head
«__» _____ 20__ p

Agricultural enterprise

USREOU identification code

Structural unit _____

ACT № _____

on the use of substances (ingredients, components) that are allowed to be used in the process of organic production and which are allowed to be used in maximum permissible quantities

by _____ 20__ p.

Purpose and method of application of substances (ingredients, components) _____
basic, pre-sowing, etc.

feeding, continuous, local, etc.

Imported on land _____
certified for organic production, transition period

Name of substances (ingredients, components)	Section and number according to List № 1073	Synthetic accounting code		Unit	Price	Field number, name of the culture			
		debit	credit			imported to the area, ha	quantity (physical weight)	in translation to the active substance	sum

Figure 3. The proposed form of the Act on the use of substances (ingredients, components) in the process of organic production

Source: author's own development

damaging the seal. Sealing of packaging, container or vehicle is carried out by the operator.

In practice, all procedures related to sampling for laboratory analysis, packaging, packaging, sealing are photographed to provide additional evidence of compliance with organic production legislation.

The consignment note for sending organic products must provide additional information that is not provided in the standard and specialized forms of this document. In particular, this information on:

- names of organic products and their description;
- name and registration code of the certification body that carried out the certification of organic production;
- list of attached documents confirming the quality of products.

4. Conclusions

Taking into account the peculiarities of the organization of business processes of organic production, the functions of primary documents in the management of organic production are highlighted. Proposals have been developed to

document the costs of seeds, planting material, plant protection products, fertilizers to ensure effective control over the process of organic production. This takes into account organizational and technological features and the specifics of control during the transition period, in terms of "pure" organic production and in terms of parallel production of organic and inorganic products. In particular, a form of the Act on the Use of Substances (Ingredients, Components) is proposed, which is allowed to be used in the process of organic production and which is allowed to be used in the maximum permissible quantities.

Given the limited scope of the publication, in this article we have developed proposals for documenting the costs of organic crop production. Promising areas of further research on this issue are the development of a package of primary documents for other sectors of organic production and the formation of guidelines for documenting all its business processes, which will form the basis of information management system of organic production at all levels and forming a strategy for its development.

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