



System For Assessing The Cost-Effectiveness Of Livestock And Agricultural Production

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ABSTRACT

One of the important roles in the reproductive process of agriculture is to increase the efficiency of the resources used. The article presents a system of indicators that can provide a generalized and quantitative description of economic processes related to the efficiency of agricultural production. Scientific proposals and practical recommendations for the development of the agricultural sector have also been developed.

KEYWORDS

System of indicators, agricultural products, resources, efficiency, farming, correlation and regression analysis, level of agricultural potential, modeling, forecasting.

INTRODUCTION

Addressing the issue of food security is an important priority of public policy and the object of scientific research of any country. The agro-industrial complex and the agricultural sector are facing a number of challenges in providing food to the whole

country and some of its regions, which need to be addressed in a comprehensive manner.

One of the important problems in the theory of food safety is the question of the methods and mechanisms of its provision. Of course, we are talking about the state's support for

agricultural production and the food market, both internally and externally. Both directions are a complex system, operating in a free market environment is more difficult and requires effective government intervention. Theories and practices prove that the level of food security directly depends on the role and level of state regulation of the industry.

A lot of research has been conducted in the main areas of food security in the region in various sectors of the economy. The scientific and practical issues of food security in the region have been extensively studied in the scientific works of domestic and foreign economists, including B.E. Mamarakhimov, TS Rasulov, TV Uskova, R.Ya. Selimenkov, A.N. Anishchenko, A.N. Chekavinsky, and others.

Without an objective assessment of the various phenomena occurring in agriculture, it is impossible to increase the efficiency of agricultural production in the context of constant intensification. Such an assessment is not possible on the basis of a single criterion of economic efficiency. The production process needs excellent indicators that reflect the impact of various factors. Only a system of indicators allows for a comprehensive analysis and reliable conclusions about the main directions of increasing the economic efficiency of production. Using a system of indicators, we can define the main (specific) or auxiliary (specific) criteria, give a general and quantitative description of economic processes related to production efficiency [1]. There are different opinions in the economic literature about the existence of one or more criteria of economic efficiency. Proponents of the single criterion believe that this requirement should be applied to all levels of government. Other economists talk about the need to use different criteria depending on the level of economic governance. There is

also a general definition of the criterion of efficiency in the use of individual production resources - maximizing production results with minimal resource costs. It does not deny the existence of a single criterion for a complete, comprehensive assessment of events, but assumes the existence of other indicators designed to quantify various aspects of economic processes.

At the same time, it is necessary to clearly distinguish the criteria and indicators of production efficiency. The criterion is the main distinguishing feature of an economic phenomenon that expresses the essence of production efficiency. This, in turn, reflects the qualitative accuracy of production efficiency. Indicators are a form of expression of the essence of production efficiency, an external measure of its criteria, and serve as a tool for qualitative and quantitative analysis of the economy as a whole, various aspects of expanded reproduction [2].

THE MAIN PART

Improving the efficiency of resources used in the reproductive process of agriculture, including land, labor, energy, material, financial and bioclimatic resources, plays an important role.

When assessing the efficiency of agricultural production, it is recommended to divide them into separate sections:

- Agricultural lands;
- Labor resources, expressed in terms of average number of employees, hours worked and wages;
- Fixed assets, expressed in their average annual value and depreciation allowances;
- Material resources, expressed as the average annual value of working capital, working capital reserves, material production costs.

Financial resources, which are an instrument of the monetary system as an integral part of production resources, cannot be separated as a separate position, as they only ensure the movement of material resources and the uninterrupted operation of the production process [3]. They are reflected in material costs (purchase of seeds, feed, fertilizers, etc.). However, in the implementation of production, especially in increasing its volume, own funds and borrowed funds are used. In such circumstances, it is important to know the profitability of financial investments, to ensure their maximum return on investment. To this end, it is recommended to identify the most effective options for directing financial resources, such as the purchase of high-quality seeds, additional fertilizers, high-yield equipment or other material resources and fixed assets [6].

Based on the principles of a systematic approach, economic efficiency indicators can be presented in the form of interrelated parts: specific efficiency indicators describing certain aspects of the production process, use of certain types of resources (productivity, labor, cost of fixed assets per 1 hectare of arable land) and generalized indicators of economic efficiency . production 'p lands, average working day, assets and other average value, which affect the individual indicators of the system (the value of gross output per 1 hectare of agriculture). [5].

Based on the above, we have developed a system of indicators that fully describes the cost-effectiveness of agricultural production. The system of production efficiency indicators proposed by us allows for a detailed analysis of the participation of each major production resource in the process of reproduction and increase in production efficiency (Table 1).

Table 1

System of indicators of efficiency of agricultural production

| Indicators | Land resources | Labor resources | Material resources | Basic tools |
|---------------------------------------|---|---|---|---|
| Resource availability | 1. Land structure 2. Dynamics | 1. Staffing 2. State dynamics | 1. Structure 2. Dynamics | 1. Structure 2. Dynamics |
| Use in the production process | 1. Productivity 2. Fertility of the land plot | 1. Employment rate 2. Land (livestock) load per 1 worker 3. Wages for 1 ton of basic products | 1. Provision of resources (by type of resource) | 1. Provision of funds |
| Attitude towards the product produced | Gross output (main types of products) at current prices | 1 gross product per average worker | Production of gross product (main types of products) at | Production of gross product (main types of products) at |

| | | | | |
|-------------------------------|--|---|---|---|
| | of land area | | current prices for 100. working capital. | current prices for 100. basic tools |
| Relation to profit from sales | The amount of profit from the sale of land | Sales volume corresponding to the average worker per year | the amount of profit from sales. working capital | the amount of profit from sales. basic tools |
| The main criterion | Growth of gross domestic product | Increase in labor productivity | Material growth (reduction of material consumption) | Return on assets (decrease in capital capacity) |

Performance indicators can be presented in two interrelated sections. The first is specific performance indicators that describe certain aspects of the production process, as well as the use of certain types of resources. Second, generalized indicators that determine the impact of a particular type of resource on production efficiency, their formation, in turn, are influenced by specific indicators. The classification of performance indicators allows us to rationally identify groups of indicators and use them accordingly to assess the efficiency of the enterprise as a whole, as well as the use of resources and production efficiency [8].

Gross domestic product growth is a key criterion in assessing the use of land resources (agricultural land, including arable land). Indicators for assessing land use include: gross output and the main types of produce per 100 hectares of land (milk and meat per 100 hectares of agricultural land, grain per 100 hectares of arable land), as well as productivity and animal productivity. The importance of productivity as an economic indicator is that it reflects the level and

efficiency of land use. It should be noted that the value of productivity directly affects the value of other indicators [2].

The main criterion in assessing the use of labor resources is the growth of labor productivity. In this case, the following indicators are used: labor costs (labor intensity) for the gross product or production in physical and value terms, corresponding to the average annual worker. Additional indicators are the employment rate of labor resources (average annual labor per worker, days worked per person per year) and the load on the land corresponding to the average 1-year worker (hectare of agricultural land).

Analyzes show that there has been a downward trend in basic agricultural production resources in recent decades, which has had a negative impact on the production process. Thus, land resources were significantly reduced. The decline in production intensity has led to a sharp decline in agricultural production. Productivity decreased. The main reason for the decline in

the yield of some crops is the insufficient use of mineral and organic fertilizers.

Land use efficiency is also associated with the use of fuel and energy resources, its consumption has decreased significantly, as well as shortcomings in the use of labor resources, its potential in agriculture has decreased by 21% in recent years [10]. In recent years, labor productivity in agriculture has declined significantly due to insufficient use of energy resources. Despite the increase in the number of agricultural lands corresponding to the average annual worker employed in production, the level of energy equipment has increased, while the level of employment in primary production has decreased.

Significant resources in the reproductive process of agriculture are occupied by material resources (seeds, feed, fertilizers, fuels and lubricants, fuel, electricity, spare parts, building materials, etc.), their share in production costs is 66-68%, in the latter. over the years, their share has been increasing due to rising purchase prices. This factor mainly determines the dynamic growth of production costs and changes in production efficiency in agriculture. At the same time, the material resources of industrial production have a decisive influence on the growth of the cost of production, because they have a higher rate of growth of their cost than the cost of material resources of their own production. Inadequate use of certain types of resources (mineral fertilizers, plant and animal pests and diseases, electricity, spare parts for machinery and equipment, etc.) reduces the return on costs compared to standard requirements [9]. Inadequate use of many material resources slows down the growth of agricultural

productivity and livestock productivity, does not ensure labor productivity and cost recovery, which leads to relatively low efficiency and often profitability.

The experience of agricultural enterprises shows that the efficiency of the use of material resources is ensured by their rational and economical use:

- Use of resource-saving technologies that reduce the specific consumption of fuels and lubricants, seeds, fertilizers, electricity and other resources;
- The use of material resources in priority areas, which will allow to get the greatest income;
- Use of material resources in optimal proportions.

The efficiency of the use of material resources, as well as labor, depends crucially on the adequacy of production capital and the capital-labor ratio, the optimal relationship between fixed assets (means of labor) and working capital (objects of labor). In recent years, according to statistics, the basic equipment of agricultural production has stabilized, and the value of fixed assets per 1 ha of agricultural land remains almost unchanged, despite the increase in the cost of purchased machinery and equipment, as well as the reduction of land in agricultural enterprises. Their capital-labor ratio has increased significantly over the last decade due to the reduction in the number of workers employed in agriculture.

CONCLUSIONS AND SUGGESTIONS

The analysis shows that imbalances in the supply of fixed assets and material resources reduce the efficiency of use of the former. All groups of different resources shape production costs in agriculture and have a direct impact on agricultural productivity indicators.

Based on our scientific research, summarizing all the different experiences collected by the regions on food security, the main directions of food security can be identified as follows:

- Access to regional food markets and ensuring an equal competitive environment for organizations of all organizational and legal forms;
- Seek measures to prevent and further increase the level of food security achieved;
- Ensuring openness and transparency of information on the state of regional food markets;
- To understand the importance of the task set by the government of the country to ensure food security and to intensify efforts to address it.

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