

Economic Basis of Resource Efficiency in Cotton Agriculture

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Abstract

In the article, taking into account the fact that the state order plays a key role in the production of products in agroclusters, taking into account the effective use of resource-saving technologies in the production process, increasing the efficiency of resource-saving technologies in agricultural enterprises today is considered one of the urgent scientific research problems.

Keywords: *Agroclusters, cotton growing, diversification, economic efficiency, resource saving, technology, production, innovative technique.*

Introduction.

As a result of reforms implemented in the agrarian sector of the economy of the Republic of Uzbekistan, agroclusters have become the main subject of agricultural production. The fact that the state order takes the main place in the production of products in agroclusters requires the effective use of resource-saving technologies in the production process. First of all, this is directly related to the slow growth of purchase prices compared to production costs, and the widespread use of manual labor leads to slow growth of productivity. Taking into account these circumstances, improving the efficiency of resource-saving technologies in agricultural enterprises today is considered one of the urgent scientific research problems and has scientific-theoretical and practical significance.

Research methodology.

Including diversification of agricultural production, improvement of land and water relations in the field, creation of a favorable agribusiness environment and high added value chain, support for the development of cooperative relations, wide introduction of market mechanisms, information and communication technologies in the field, as well as in order to effectively use the achievements of science and increase the potential of personnel, on October 23, 2019, the PF of the President of the Republic of Uzbekistan "On approval of the strategy for the development of agriculture of the Republic of Uzbekistan for 2020-2030" - Adoption of Decree No. 5853 determined the road map of agricultural development in Uzbekistan until 2030. "The functions of state bodies in the agro-industry complex are mainly directed to the management of production processes, and some of them can be transferred to the private sector. Despite significant growth in the fruit and vegetable and animal husbandry sectors, most of the service infrastructure, provision of material resources and scientific research and educational institutions are dedicated to the production of raw cotton and grain. The lack of modern and high-quality service infrastructure that meets international standards and requirements further complicates the problems in the field. This applies primarily to public services related to food safety, veterinary and phytosanitary".

A.Zokirov "Efficiency grows faster compared to the amount of resources used. Therefore, there is a connection between "Samara" and "Efficiency", which is manifested in the process of development of production.

B.T. Salimov, B.B. A group of authors consisting of Berkinov and others "Effectiveness is a broad concept, as a result of any event or activity, it is expressed in the effect of using fertilizers, increasing the yield of crops, increasing the efficiency of fodder, increasing the productivity of livestock. However, this effect of new productivity and productivity growth does not indicate how useful these activities are. The degree of coverage of costs related to the use of fertilizers and fodder is known only when the result obtained with these costs is compared with income. If the increase in the productivity of crops and the productivity of livestock as a result of the use of fertilizers and fodder represents the technical efficiency of this event, the comparison of the income received as a result of this event with the expenses related to the event represents the economic efficiency.

Analysis and Results.

Indicators of the economic efficiency of the use of resource-saving technologies in the cotton industry are not only mutually coordinated, but also have separate directions within the framework of a single system. Without a unified system of relevant economic indicators, it becomes difficult to assess the economic efficiency of resource use in the austerity mode. However, in our opinion, it is more correct to evaluate the economic efficiency of the use of resource-saving technologies in the cotton industry through a system of indicators rather than a single general indicator. Because each indicator complements each other and more fully reveals the characteristics of savings. Therefore, the economic efficiency of using resource-saving technologies in the cotton industry should be determined through the system of "natural", "value", "relative" and "complementary" indicators. Also, due to the difficulty of developing production without innovative techniques and technologies today, it is required to encourage the introduction of innovative technologies in the cotton industry. In this regard, it is important to increase the weight of innovative digital economical technology and technical means (PTT) in the economy system in the cotton industry.

Advantages of resource-efficient technology in cotton farming:

- it is possible to prepare the field with tussocks for the next year's rice planting in the fall;
- cotton stalks are returned to the soil of the cotton field as organic fertilizer;
- since all processes are performed in one pass, the soil structure is not damaged, especially it is not compacted;
- consumption of fuel products is 3.5-4.2 times, accordingly, labor and time consumption is reduced.

Processes in technology are carried out simultaneously in the following order:

1. standing branches are placed longitudinally at the bottom of the adjacent field with their roots;
2. The stalks placed in the egate are divided into at least two, crushed and compacted to the bottom of the egate;
3. the existing bush is cut into two lower layers and each of them is rolled over the stalks separately;
4. the technology ends with the formation of a new bush in the place of the existing bush, and in the place of the existing bush, a new bush with stems buried under it

From the execution of processes in technology:

- according to the first process - firstly, the law of returning the stalks to the ground as a nutrient is fulfilled, and secondly, the costs of clearing the field from stalks are completely saved;
- according to the second process - the rotting process is accelerated, it is ensured that the buried branches of the cotton stalk do not stick to the working organs of the cultivator;
- according to the third process - firstly, there is no need for plowing due to the layering of the soil, as a result, the costs of plowing, leveling, and harrowing are saved. will be buried deeper.

The universality of the technology can be explained by the fact that it is possible to take a field of wheat and plant it with seeds or between the rows of grain.

Ease of use of the combined unit:

- ✓ installation of the combined unit on the tractor in suspension form facilitates its transfer from one field to another;
- ✓ The absence of working bodies in the unit, which are forced to rotate, makes it easier to control.

The combined unit that implements the technology consists of a general frame, a suspension mechanism, a stalk bender, a spherical disk, a guide, a turning device, a compacting support wheel, a flat disk and a pusher and an adjustment device.

It can be concluded that the increase of this indicator means the increase in the use of modern technologies in the production system in the cotton industry and the stability of the development of the industry in the future. The effect of using resource-saving technologies in cotton farming is expressed by the increase in the amount of cotton produced compared to the amount of expenses. The effectiveness of using these technologies can occur in the following case.

Including:

- due to the fact that the amount of the product obtained as a result of the newly applied agrotechnology at the expense of the unit of cultivated area is greater than the product obtained within the framework of the previously used technology;
- through an increase in the amount of products obtained at the expense of costs in the newly used agrotechnology compared to the previous technology;
- in the new technology introduced in cotton farming, it is expressed by the increase in the amount of the obtained product compared to the increase in the amount of expenses;
- and finally, the most important thing is to achieve an absolute or relative decrease in the consumption of resources required for the production of a product unit at the expense of a product unit or at the expense of a crop area unit.

Conclusion and Recommendations.

Based on the above considerations, it is appropriate to evaluate the economic efficiency of resource-saving technologies in cotton growing based on the requirements of market relations through a system of indicators. Because, in this case, each indicator gives an opportunity to come to more accurate conclusions based on its unique characteristics. Economic efficiency of resource-saving technologies should be determined through a system of indicators of a natural, value and relative nature.

If we take into account that the initial basis for calculating efficiency is cotton productivity, it is necessary to consider the increase in productivity as the starting point for achieving economic efficiency in the network. From this point of view, it is important to take into account the dynamics of changes in cotton yield when evaluating the economic efficiency of resource-saving technologies in cotton farms. Or it is required to achieve a decrease in the amount of resources spent on the account of the unit of cultivated product, even if the cotton productivity remains unchanged.

The interdependence of economic efficiency indicators justifies the need for a comprehensive use of the system of indicators in assessing the economic efficiency of cotton farming.

Material resources are an economic indicator that fully reflects the economic efficiency of resource-saving technologies in cotton farming. Because it reflects the land and water, equipment and technology, mineral fertilizers, fuel and lubricants and other expenses used in cotton cultivation. Also, it will be necessary to maintain acceptable proportions of resources required for cotton production. In particular, the high availability of equipment in the material resource ensures an increase in economic efficiency, but it cannot reflect the efficiency of using other resources in cotton cultivation. Introduction of resource-saving technologies in cotton farming focuses on value indicators when a situation occurs when the consumption of another resource increases due to the saving of one resource. That is, they try to use relatively cheaper resources. On this basis, it is necessary to pay proper attention to the ratio of resources in the application of economical technologies in cotton farms.

One of the important indicators determining the economic efficiency of the introduction of resource-saving technologies is production profitability. Profitability, by its nature, makes it possible to assess the potential of resource use based on making a final, general conclusion about the economic efficiency of resource-saving technology. This justifies the fact that the level of profitability depends on the cost of the product as well as on the profit.

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