

INCREASING THE EFFICIENCY OF INTERMEDIATE COTTON AND GRAIN CULTIVATION IN THE MIDDLE OF INTENSIVE TECHNOLOGIES

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ABSTRACT:

Adoption of decrees and resolutions of the Government of the Republic of Uzbekistan creates the legal basis for the cotton industry.

It is also known that the priority task of the state is to improve and accelerate the work in the field of selection, seed, variety renewal, introduction of high-fiber cotton, early maturing varieties and their rational placement in different soil and climatic conditions of the country.

This issue was raised in the resolution of the President of the Republic of Uzbekistan Sh.M.Mirziyoev dated November 9, 2019 on "Improving the use of farms, dehqan farms and lands of the population." Therefore, we believe that this booklet will be written in a timely manner and will solve the problem of soil fertility to some extent.

INTRODUCTION:

On the basis of the results of scientific research on the care of alfalfa between wheat and cotton in the system of crop rotation in the conditions of light meadows of the Fergana Valley, he recommended to produce a recommendation: This recommendation currently serves as a guide for growing alfalfa between wheat and cotton in a rotational cropping system on diversified farms. According to official data, irrigated land accounts for 12.3% of the world's land area, accounting for more than 80% of total food production [5,6]. Other sources (Yanshin, 1998) state that 88% of irrigated land, 10% of pastures and meadows,

and 2% of seas and oceans are provided as food for humankind. In irrigated lands around the world, the productivity is 3-4 times higher than in non-irrigated lands, and most importantly, there is a guaranteed yield. Hence, all efforts should be directed to such lands.

According to the FAO, resource-saving technologies aimed at increasing crop yields, maintaining and increasing soil fertility have reached 185 million people worldwide. 19.3 million hectares in the United States, 17.3 million hectares in Brazil, 14.8 million hectares in India, 12.3 million hectares in China, 10 million hectares in Mexico, 3.5 million hectares in Australia and 3.7 million hectares in Pakistan, for a total of 80 million hectares. .

In the practice of farming all over the world, agricultural crops are planted alternately or alternately on a scientific basis or due to natural necessity. The structure of crops is determined by the state and the natural soil and climatic conditions of the country, as well as the requirements of economic and social necessity.

Our analysis shows that in world practice, in most cases, the share of major crops is around 30-60 percent. In the structure of crops, when the main crops make up 30-40 percent, there is no strong risk and damage of various diseases, pests and weeds.

If the weight of the main crops exceeds 60% or at the level of monoculture, if the science-based care agrotechnology of agricultural crops is not strictly followed, the biggest problem is in the soil, ie its nutritional, microbiological and agrophysical and other vital processes are disturbed [6].

We must not forget that the soil is also a living organism, as a result of which it becomes ill, the natural balance is disturbed. In the end, it will be able to resist or eliminate some aggressive pathogens, and will lose its antiviral properties if it is possible to mimic them.

Today, the rapid growth of the population and the growing demand for food raises important issues for agricultural scientists, such as the selection of varieties and varieties of crops that can produce high-yielding, fast-growing, environmentally friendly products and the development of agro-technologies for their cultivation.

Research in this area requires the creation and introduction into production of advanced resource-saving technologies for obtaining high and quality crops from agricultural crops in different soil and climatic conditions. However, the most important problem in the successful performance of these tasks is soil fertility, which requires great attention to its preservation and increase. This is because the law of return in the soil is being violated in the system of cotton cultivation, which is accepted in the agricultural practice of our country: crop rotation. That is, the mass taken out of the soil by the crop is too much when poured, leading to a decrease in soil fertility. True, on the basis of many scientific studies, scientists have proved that this can be offset by high levels of mineral and organic fertilizers, siderates and intermediate crops. However, while most of this is theoretically possible, it is very difficult to apply in practice in many cases. This is because in the current farming system, crop rotation is very tight. For example, in the cotton and grain crop rotation system, wheat is planted as a secondary crop before the cotton crop is harvested. As soon as the winter wheat is harvested, a group of secondary crops is planted, and their harvest is mainly harvested in October and November.

Under such conditions, tillage is carried out in October and November, and there is almost no opportunity to sow intermediate crops. Not to mention the siderate crops. Therefore, due to lack of time, high cost of equipment, fuel, fertilizers, farmers almost do not use this important agricultural measure.

Now let's analyze the state of soil fertility in the cotton: grain rotation system. Assuming that the average yield of cotton planted and cared for is 30 ts / ha, 3 tons of raw materials are taken to the cotton plant, 5-7 tons of cotton stalks are burned.

When winter wheat is planted on this area and yields an average of 50 ts / ha, 5 tons of grain are harvested for Donmahsulot, 7-8 tons of straw are removed from the field and prepared for animal feed.

So, in two years, that is, cotton: grain is taken out of the ground as an organic product at a rate of 12-13 tons per hectare, a total of 20-30 t / ha at the expense of cotton in one rotation of crop rotation. However, for the cultivation of each type of crop, taking into account the physical condition of 500-600 kg / ha of mineral and organic fertilizers, only 1-1.2 t / ha of fertilizers are applied. As a result of the return of this process for several years, the law of return in the soil is violated, which has a negative impact on soil fertility. This is manifested in a sharp decline in productivity, deterioration of quality, as well as deterioration of the indicators that determine the basic fertility of the soil.

Despite the fact that the country has a very intensive farming system, the structure of crops in which the share of fodder and crops that serve to increase soil fertility is very small, they are not planted, which leads to a shortage of high quality fodder.

It also leads to a sharp decrease in the amount of manure excreted from livestock and a sharp decline in soil fertility, deterioration of its agrobiological, agrophysical, microbiological properties due to the absence of manure, root

residues in the soil. Favorable conditions are being created for.

The Action Strategy of the Republic of Uzbekistan for 2017-2021 identifies increasing the productivity and quality of agricultural crops as one of the most important tasks in ensuring food security. Today, special attention is paid to the optimization of soil fertility issues by bringing cotton and grain growing to a new stage of development, planting cereals and legumes. In this regard, scientists are conducting important research on the improvement of existing agrotechnologies, the cultivation of scientifically based crops and the cultivation of crops that maintain soil fertility.

Research on the rational use of irrigated land, conservation and increase of soil fertility through the rational placement of agricultural crops, the use of intensive crop rotation and intensive cultivation technologies is relevant.

We hope that this monograph will to some extent serve the implementation of the tasks set out in the decrees, resolutions and other normative legal acts of the Head of State.

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