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**PRODUCTIVITY** 

UZBEKISTAN

# ABSTRACT

The mechanical composition of the applied organic fertilizer and the sedimentary turbidity make the soil particles stick together in light soils. In this regard, scientific research on the further improvement of the reclamation of unproductive, difficult-to-reclaimed sandy soils, the development and introduction of modern agro-technologies that save water and resources is of great importance. Summing up the results of observations during the period of growth and development of the plant, it can be noted that the placement of fine soil promotes better growth and development of all agricultural crops and increases their productivity.

# **KEYWORDS:** Composition, Difficult-To-Reclaimed, Unproductive,

# INTRODUCTION

During the years of independence, the country has taken comprehensive measures to effectively use irrigated sandy and loamy lands and improve the ecological and reclamation status of lands. As a result, an additional 2-3 quintals of raw cotton and 4-6 quintals of wheat were harvested from each hectare of sandy and sandy soils, especially in Central Fergana. At the same time, insufficient attention is paid to the genesis of sandy and sandy soils with difficult reclamation conditions, their morphogenetic properties, the development of fruit and vegetable crops with the development of optimal agrotechnologies to prevent erosion. Among the important strategic tasks in the Action Strategy of the Republic of Uzbekistan for 2017-2021 are "... further improvement of the reclamation of irrigated lands, development of reclamation and irrigation networks, introduction of intensive methods of agricultural production, first of all, modern water and resource-saving agro-technologies". Defined as one. In this regard, scientific research on the further improvement of the reclamation of unproductive, difficult-to-reclaimed sandy soils, the development and introduction of modern agro-technologies that save water and resources is of great importance. With this in mind, in order to meet the demand for fruits and vegetables in several districts of Fergana region in 2019, during the visit of President Islam Karimov to



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Fergana region, separate decisions were made to reduce the area under cotton and expand the area under fruits and vegetables. At present, in order to increase the productivity of grape varieties grown in Kushtepa district on the basis of experiments, to study the regime of irrigation, the level of productivity in a scientific approach, experiments were conducted in the fields of farm "Abdashonota". Research is being carried out on lands with low reclamation status in order to properly organize agricultural machinery and achieve additional yields.

In addition to the measures taken to make agricultural products more abundant, it is necessary to take a serious look at the soil that produces these products. Soil is an environment in which moisture, heat and light must be exposed together, so that the conditions for plant growth are created. Soil, water, air, heat and light, as well as nutrient regimes are important for plants, and there is a difference between their stagnation. Therefore, increasing soil fertility, studying the utilization of nutrients and plants in it requires great attention. Therefore, in sandy environments, work was carried out to improve soil fertility by creating an artificial screen by sliding the soil.

Based on the experience of several years, the yield has increased significantly when we used organic fertilizers and mineral fertilizers as a result of muddy deposits in the low-yielding lands of Central Fergana. But these results were achieved at great economic cost. The mechanical composition of the applied organic fertilizer and the sedimentary turbidity make the soil particles stick together in light soils. We also know that the water holding capacity of the applied manure is also good, which means that the moisture content is increased by applying organic fertilizers to the sandy soil, and as a result, the plant receives the necessary nutrients from it and grows quickly.

The minimum amount of nutrients with an artificial screen in our experimental field was determined in the control option. As the topsoil falls into the top layer, the amount of nutrients in all directions increases and the firmness of the soil increases. This increase is directly proportional to the norm of the planted soil. When the maximum amount of nutrients was applied to 1000 t / ha, the level of soil fertility changed.

Needless to say, the organized screen was a barrier holding the nutrients. The maximum amount of nutrients is stopped in the layer where the artificial screen is formed. On the third day after irrigation, the amount of nitrate nitrogen in the 60-70 cm layer in the variant where 40 t / ha of fine soil was plowed with 70 cm plowing was 12.2 mg / kg, while when the fine soil norm was raised to 1000 t / ha, this figure was 24.2 mg / kg. It is similar to the migration of nutrients in the experimental area of the soil in its natural state. Meury indicators of soil fertilizers were determined in all variants of growth and development in the variant where the measure of nutrients was N250, P150, K175 kg / ha and 0-110 (130) cm sand layer. Excessive application of mineral fertilizers leads to an increase in nutrients in all respects. As the sand layer decreases, the index increases. Most of the nutrients were detected when N-350, P-250, and K-170 kg / ha were applied, and in the variant where the sand was 0-50 (75) cm thick. In this variant, the amount of nitrate nitrogen on the third day after irrigation during the growing season (1484) in a layer of 0-30, 30-40, 40-60, 60-70, 70-100 cm is 9.2; 9.7; 6.3; 7.7; 8.2 mg / kg. N-NO3 was observed in the least controlled, i.e., where there was no screen. This specificity was maintained until the end of the plant's growth period and in subsequent years of research.



The experiments conducted had a positive effect on the growth and development of the plant. The option of plowing fine soil to 40 cm had an advantage in the growth and development of plants by creating an artificial screen, which option was superior to the option of plowing fine soil to 70 cm. Summing up the results of observations during the period of growth and development of the plant, it can be noted that the placement of fine soil promotes better growth and development of all agricultural crops and increases their productivity. We know this from the crops grown in the vineyards.

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