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HUMUS CONDITION OF IRRIGATABLE GRASSY SOIL AND ITS FERTILITY OF SARDOBA DISTRICT

N.K.Masharipov[1]
M.R.Oblaqulov[1]
B.Z.Nishonov[2]
Teacher of Gulistan state University[1]
Student of Gulistan state University[2]

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ABSTRACT

The article contains information about the total area of Sardoba district of Syrdarya region, the humus condition, mechanical composition and productivity of irrigatable grassy soils.

Based on “The Land Code” of the Republic of Uzbekistan, “the State Land Code: of the Republic of Uzbekistan, which aims at increasing the fertility and productivity of soils in the agricultural production of the country and improving the interest of landowners and land users on land, “cadastre law” was adopted. The basis of these laws is the scientific basis for effective and rational use of land resources.

Soil fertility is the ability of the soil to provide water, nutrients, etc. Soils differ from rocks in their fertility. Agriculture that provides the basic food products for humans on fertile soils. plants are grown. Land is only used for agricultural production due to its fertility. became a tool. Soil fertility is closely related to soil-forming factors: climate, topography, soil-forming rocks, natural and cultivated plants, but the nature of land use is of great importance for the level of fertility. The most important factors of soil fertility are: sufficient amount of nutrients and their type necessary for plant development; availability of moisture that the plant can absorb; good soil, aeration; granulometric composition of the soil, structural condition and structure; the amount of toxic substances (acid, alkali, salt, etc.); consists of soil reaction and others. The sum of these properties determines the degree of soil cultivation. All elements of productivity are closely related. A change in one of these elements affects the others. Because different plants have different soil fertility requirements and depending on plant biology, soil that is considered fertile for one type of plant may not be fertile for another.

The main indicator of soil fertility is determined by the quantity and quality of the plant yield from this soil. The fertility of this soil tends to be high if the yield of the crop is high with high quality. Hence, in such soil, humus and a large number of nutritional elements should be sufficient.

Organic substances play a major role in the formation, development and productivity of the soil. The amount and quality of this organic substance, which is the residue of plants and

animals, determines the soil fertility and its positive and negative properties. To achieve high quality and high yields of crops, soil fertility should be high. Therefore, soil productivity has a special role in the content of organic substance–especially humus [1,3]

The chemical composition of humus is very complex, mainly consisting of mobile humus, fulvic acids and strongly bonded waxes.

In humic soils, the amount and quality of humus is particularly high and in one meter layer of land per hectare is 350-700 tons. On gray soils of Uzbekistan, on the other hand, the amount only comprised of 70 to 130 tonnes, and only about 35-40 tonnes per agricultural land. [1]

In particular, the Sardoba district, which is located in the region, is in Central Mirzachul plain, consisting of loess lands, there are irrigatable grasslands; consisting of grey grasslands, grasslands; green grasslands.

Irrigated soils are the basis of irrigated agriculture in the area and are practically used fully. The soil-forming rocks are composed of loess clays and loess loam in the dealluvial-proluvial genesis. According to the mechanics, the soils are mainly divided into medium and light loams, and are sometimes found in granulometric layers. [2,4]

Soils are separated into rare and medium on the basis of humus component. Its content is 0.8-1.2% in the abrasion layer, and decreases to 0.3-0.4% by layer. Grasslands occupy large areas in the Mirzachul region and show high enough fertility potential.

Irrigated grassland is found in conical spruces of mountainous plains and river curves. They are formed in the transformation resulting from the rise of the surface water level in the gray soils up to 2-3 m. Ground-grass soils are less fertile than grassy soils. Its content is 0.5-1.1% in the feeding layer and 0.04-0.09% of nitrogen. Total phosphorus is 0.13-0.27%, potassium 0.88-1.70%, carbonates are evenly distributed on the cutting (from 6% to 8% CO2). Gypsum is almost absorbed in irrigated soils (0.07-0.10% SO4).

The rational and efficient use of land resources in our country, as well as the determination of crop cultivation, planning requires a thorough study and evaluation of the quality of land. [3]

Soil drainage is a quantitative (specific) assessment of soil fertility.

Assessment of the quality of soil in irrigated lands of Sardoba District of Syrdarya Region (with cultivated lands, multi-year wood, fields and irrigated areas) was performed on 35902,6 hectares, agricultural land and other land users. The average score in the district was 49. [1,2]

Taking into consideration soil fertility, the irrigated lands under crop yield are assessed on productivity by 10 points, soil fertility, 5 clusters of agricultural cadastre (groups).

Soils in the first cadastral group (unusable and very bad agricultural land) - I-II class are not found in Sardoba district.

The second cadastral group (the worst and worse places) is the III and IV classes. Their area is 6583.5 hectares. These are low soils and have one or two different negative factors.

The third cadastral group (lower than average and average) is the V and VI class. The area of this territory is 23256.4 hectares in Sardoba district.

The fourth cadastral group (land of higher quality and better places) - places VII and VIII class.

The fifth cadastre group (good quality and high ground) - the soils of the IX and X classes are not found in the Sardoba district.

In summary, in order to protect the fertility of irrigated soils in Sardoba and to improve the yield of agricultural crops, we recommend the following:

1. Conducting periodic sloping operations, which allows for economical use of irrigation water.
2. Incorporate crop rotation in the farming territory to increase soil fertility.
3. Regular cleaning of the existing collector drainage system and enhancing their efficiency will have a great impact.

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