IMPROVEMENT OF SOIL RECLAMATION (ON THE EXAMPLE OF BUKHARA REGION)

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Annotation: This article analyzes the type of soils in Bukhara region, their mechanical composition, salinity, fertility and develops recommendations

Keywords: Soil fertility, soil density, mechanical composition, Meadow-alluvial, non-alluvial soils, fertile layer.

Introduction: Today, there is a need for a long-term debate on how to increase soil fertility, rather than thinking about it. First of all, let's look at the extent to which the soil composition of irrigated lands has changed. The ground, especially its driving layer, is dense. Specific gravity is 50% higher than normal. The reason for such compaction of the soil is the excessive lack of humus in it (humus). Let's take a look at the world's agricultural data. For example, in Germany, the Netherlands, Denmark, the amount of humus in the soil is 4-4.6%, in Russia - 3.6%, in Ukraine - 3.2%, in Belarus - 2.4%. 0.62-0.75 percent [1].

The amount of humus in the soil of most regions of the country has decreased by 0.35% over the last 25-30 years, instead of increasing. How long does it take to restore the quality level of our soil? Imagine: every hectare of land is fed 30 tons of local fertilizer every three years, the amount of humus contained in the soil increases by 0,1 percent in ten years. The conclusion from this is that in order to multiply the humus contained in the soil, it is necessary to constantly give the Earth a local fertilizer. Let's take an example from foreign farming in this regard. While organic fertilizer is given to 23 hectares in France, 26 hectares in England, 26,5 tons in Germany, 76-78 tons of rotting fertilizer is given to every hectare of land per year in the Netherlands, which is shown as an example in World Farming. We have 18,5 tons of local fertilizer instead of 5,5 tons in the plan.

Today, ensuring the safety of the population in our country, protection from natural, technological and environmental emergencies is one of the priorities of the state policy. President of the Republic of Uzbekistan Shavkat Mirziyoyev noted that the extraordinary situation in Sardoba water has caused serious damage to agriculture in Sardoba, Agoltin and Mirzaabad districts during the video-projector meeting held on may 5, 2020. Also, the natural disaster that occurred in Bukhara region also had its impact on agricultural crops. As a result of such natural disasters, the problem of soil fertility has become a more pressing issue.

The irrigated areas of Bukhara region are 275.2 thousand hectares, of which 232727 thousand/ha are provided with collector-trench systems.

According to the reclamation cadastre, currently 38 thousand hectares (13.8%) in the region are good, 211.4 thousand hectares (76.8%) are satisfactory and 26.3 thousand hectares (9.6%) are reclamation. in terms of unsatisfactory areas. Of the available irrigated area in the province, 238,000 hectares, or 86.2%, are of varying degrees of salinity. Of this, 66,932,000 hectares are medium to high salinity areas.

In the province, the recovery of salinity in areas where salt is washed away during the growing season each year will continue almost uniformly in subsequent years. The recovery of salinity in the region is directly related to the hydrological year. When the year is wet and there is a lot of rain in the spring,

the salt reserves in the soil are significantly reduced this year, and vice versa. The irrigated lands of Bukhara region are typical of the desert region, and from ancient times the irrigated meadow alluvial, meadow-desert and meadow-bald, meadow-swamp soils are widespread.

Distributed in the irrigated area of Bukhara region soil types and area

Soil type	Area, thousand ha	%
Meadow-alluvial, non-alluvial soils	205,5	**87,7**
Barren soils	49,3	**8,0**
Gray-brown soils	11,2	**4,1**
Meadow-sandy soils	**0,1**	**0,2**

These soil types are widespread in Vobkent, Bukhara, Peshku, Karakul, Alat districts of the region. These soils have long been irrigated, cultivated, fertile soils, the content of humus in the topsoil (0-40 cm) is 0.86-1.6%, total nitrogen is 0.06-0.12%, total phosphorus. 0.11-0.18%.

The mechanical composition of the soils of the region is different, with an average mechanical content of 36.2-74.0% by soil type (Bukhara, Peshku, Romiton, Gijduvan, Karavulbozor districts). Heavy soils are more common in Kagan and Vobkent districts, while light soils are more common in Shafirkan, Jondor and Karakol districts.

In conclusion, it is necessary to conduct agrochemical analysis of soil and develop agrochemical cartograms on irrigated agricultural lands of Bukhara region.

Insufficient modern approaches in determining and forecasting soil fertility by research institutes in the field, agro-measures carried out on agricultural lands, including plowing, application of mineral and local fertilizers before planting and mineral fertilizers during the growing season The lack of a system of localization of aggregates specializing in the use of dogs has a negative impact on the physical and agrochemical properties of soils, leading to an increase in soil density, a decrease in the supply of humus and nutrients.

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