THE VOLUMETRIC MASS OF THE SOIL.

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Abstract: *This article presents information about the volumetric mass of the soil. In addition, depending on the porosity of the soil and its structure, you can get information about determining which group it belongs to.*

Key words: *soil, volumetric mass, plowed layer, porous, scattered, dense, small volume, aggregate.*

The volume mass of the soil is said to be the ratio of one cubic centimeter of dry soil in its natural state to the weight of water obtained at -40 S in that volume per gram, and is represented by g/cm3.

The volume mass of the soil will be very variable and will largely directly depend on the degree of compaction of the aggregates. The upper driving layer usually has a small volume mass (1.1-1.3 g/cm3), since in this layer the aggregates will be located in the cavity. Due to the decrease in the amount of aggregates in the lower layer, as well as the dense location of aggregate and particles, the amount of gaps decreases, as a result of which the volume increases in mass (1.5-1.7 g/cm3). The upper layers of structured soils have a small volume mass, which can remain unchanged throughout vegitation.

The scarcity of aggregates in Uzbek soils as well as their lack of water resistance cause the volume mass to fluctuate greatly during vegitation.Irrigation water disrupts the aggregates and causes them to become more dense.Even if the newly irrigated land gradually becomes denser and stays close together in terms of density of soil crust – even so, soils in the Sahara zone and in hydromorphic conditions become particularly strongly compacted. The volume mass of the soil in the lower layers in general the upper layer of the soil will be larger than the volume mass of the soil. The largest volume is the layer under the mass-driven floor.

S.N. Rijov outlined the idea that the compacted layer at the base of the plow floor, that is, the plow heel, is formed due to the violation of the soil structure and compaction of the soil of water and partially working weapons given during irrigation. That is why the underfloor layers of soils that have been irrigated since time immemorial have a slightly larger mass of volume. (Can be 1.60-1.80 g/cm3). This compaction of the soil is caused by perennial watering as well as the pressure of the driving tools.It is currently found that the deeper the soil is driven, the less layer compaction at the base of the driven floor is reduced. The harm of this layer is widely illuminated enough in the literature, and the peasants also know it well. Non-irrigated

land does not have a plough roof. The volume mass of saline soils is much less than that of other soils. All irrigated soils tend to be more densely coagulated and less serrated compared to non-irrigated soils or the soils of reserve lands.

The volume mass of the soil is important in determining its fertility, especially in increasing their yield in the normal development of cultural plants.

M. Umarov and J. Ikromov (1983) develop the following scale of preliminary (approximate) assessment of the general physical characteristics of the irrigated soils of Uzbekistan (table 11).

It should be noted that although the microaggregates present in soils are in small quantities, they cause the formation of a specific physical regime, preventing the volume mass from rising too much during the entire vegitation. We see this in some examples in special sections.

There are several field and laboratory techniques aimed at studying the soil thajm mass.

N.V. Burmachevsky (1888), A.A. Izmailsky (1894), P.Barakov (1903), YE. Ramani (1911), A.G. Doyarenko (1912), N.A. Kachinisky (1924), P. A. Nekrasov (1925), A.F. Lebedev (1928), S.V. Zonn (1929), YE.G. Petrov (1929) and dozens of other scientists proposed their own special units aimed at studying the soil volume MSSA. The special tools of Autors have a very diverse size and are designed to take soil samples without compromising their natural structural condition.

These instruments are in some cases used in most R & D work.

Currently, Rollers of different volumes (250, 500, 1000 cm^3) are used in the work of soil reclamation for the purpose of studying the volume mass.

With the determination of the mass of the volume, we know its degree of compaction, which, being considered an important morphological sign of it, helps to develop some agrotechnical measures.

Depending on the density of the soil, it is divided into:

Medium soil-a shovel and a knife will not pass into such soils;

Dense soil - particles of buday soils are attached to the chips, and a shovel barely passes into them;

Porous soil-particles or structural elements of such soils will not be well combined with each other, and they will be easily cut by a shovel, which will break off into particles or structural fragments when the soils are turned over with a shovel;

Soluble soil-contains soluble sand. When wet, the density decreases, and when excessively wet, it becomes leaky.

The indicator of the volume mass of the soil is widely used when calculating the porosity of the soil, as well as how much salt, humus, nutrients, water it contains.

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