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THE ROLE OF SOIL IN NATURE AND SOCIETY

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Abstract:
The soil has a unique organic-mineral composition. In the process of soil formation, accumulation of humus and other complex organic compounds occurs. Also, the soil is enriched with biogenic secondary aluminosilicate minerals, biophilic elements, thus it acquires its main property - fertility. Due to the fertility of the soil cover, it has the ability to ensure the growth and development of plants, i.e. to produce crops. This property of the soil is one of the important conditions for the existence of people and multi-branch agriculture.

Key words: Soil, plant, organic fertilizers, mineral fertilizers, humus, soil cover, society, physical environment

Introdsuction

The soil has a unique organic-mineral composition. In the process of soil formation, accumulation of humus and other complex organic compounds occurs. Also, the soil is enriched with biogenic secondary aluminosilicate minerals, biophilic elements, thus it acquires its main property - fertility. Due to the fertility of the soil cover, it has the ability to ensure the growth and development of plants, i.e. to produce crops. This property of the soil is one of the important conditions for the existence of people and multi-sectoral agriculture.

Soil cover and plants form an inseparable unit - the global soil - ecological system, in which plants and soil live together. Millions of years ago, plants appeared on land. At that time, the process of the formation of soil, which went through a very complicated

history, was connected with the history of all living organisms on our planet. Soil cover performs another very important function in the biosphere. Like the world ocean, it is a purifying environment for our planet. The decomposition of most organic and organic-mineral compounds is completed in the soil. The soil is a receiver of various wastes of economic and living activities. Due to the high density of living organisms in the soil, the decomposition of the wastes of all living organisms takes place. The cleaning ability of the soil is used in some cities to clean sewage and water from industries. Special irrigated fields are built, waste water is collected in them, and biological purification of the soil is effective.

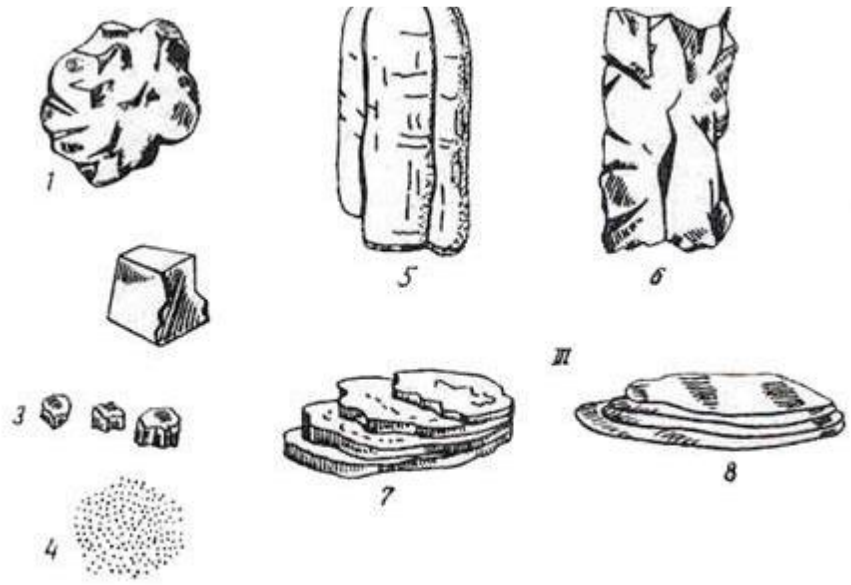
Soil is an inexhaustible wealth that delights and feeds people with delicacies, and it is a source that produces necessary food products and necessary raw materials. Soil is the main wealth of our country. Soil is as necessary for life as sun, air and water, and it is a biological living body. In addition to being a means of labor, the land is a great laboratory, a treasure (arsenal) that creates a means of labor, a labor material (object), a place for the population and a collective base. The soil layer plays the role of a special screen in protecting the life in the biolayer from various negative consequences. The stable state of the biosphere is closely related to the normal function of the soil cover and its protection. One of the main tasks of the soil is to ensure the existence and continuity of life on Earth. It is the plants, and through them, the animal world and people, for their existence, to create their biomass, they take nutrients and water from the soil. Biophilic elements accumulate in the soil in the form of chemical compounds that are necessary and easily absorbed by organisms. All terrestrial plants develop in the soil, microorganisms and various animals feed on it. Without soil, the natural association of living organisms on earth cannot function. The most important thing is the unity of biosphere processes: soil is a product of life and at the same time a condition for its existence.

Properties of soil in its natural form:

1. Soil occupies a certain place on our planet - it is the surface horizon of the earth's crust, which forms a thin layer. The earth's soil cover is the pedosphere. The upper boundary of the soil is the surface that separates the soil from the atmosphere; lower limit - the soil goes to the depth where the formation process takes place (determining the lower limit of the soil is quite conditional). Soil is an integral part of terrestrial biogeocenosis.
2. Soil - The origin and evolution of life on Earth is the result of the interaction of biota with rocks that protrude from the surface of the Earth.

3. Soil processes take place as part of a complex cycle (geological and biological) of substances and energy on Earth.
4. Soil is a unique, natural wound in terms of the complexity of its material composition.
5. The soil has a complex structure (structure) and stratification in terms of its characteristics, composition and processes.
6. The general and most important quality of soil is fertility.

The importance of soil in agriculture is that it is the main means of agricultural production, the subject (substance) of human labor, and to a certain extent, the product of this labor. Humanity currently produces 98 percent of its food, as well as wood and many other non-synthetic products for various industries, thanks to soil fertility.



Picture 1. Types and forms of soil structure I cubical type: 1- large lumpy; 2- nut-shaped; 3- granular; 4- dusty. II prismatic type: 5- columnar; 6 - large prismatic. Plate-like type III: 7- flat layered; 8- leafy

Various organic compounds and substances released by the body of some animals in places that appear during the life activity of soil animals and the development of plant roots are called biological new wounds. These include coprolites, the waste of earthworms; burrows - paths of burrowing animals (such as bats, woodchucks, woodchucks) that are empty or filled with waste; root residues accumulated from

rotting of large roots; including fine root canals - like dendrites - left on structural fragments.

Classification of soil structure fragmentsi

Table 1

Types	soil quality	The size of the pieces
Flaxlike	Type 1 is cubic large scaly small scaly	> 10 sm 10 – 1 sm
earthy	large cut medium cut small cut	10–3 mm 3–1 mm 1–0,5 mm
Nutty	large nut nutty small nut-like	>10 mm 10–7 mm 7–5 mm
Granular	large grain grainy fine grain	5–3 mm 3–1 mm 1–0,5 mm
Columnar	Type II Prismatic large columnar columnar small columnar	>5 cm 5–3 cm <3 cm
Columnar	large columnar Columnar	5–3 cm 3 cm
Prismatic	large prismatic prismatic small prismatic	5–3 cm 3–1 cm 1–0,5 cm
Plated	shale plate-like plate-like Leafy	>5 mm 5–3 mm 3–1 mm <1 mm
Coin-shaped	large granular small granular	3–1 mm <1 mm

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