



THE SOIL IS A PLACE OF TESTING FOR ALL LIVING ORGANISMS

SAIDOV MUXAMADI

Associate Professor of the Department of Ecology and Soil Science,
Termez State University.

zokirov97@umail.uz

Article history:	Abstract:
Received: 23 th March 2021 Accepted: 4 ^h April 2021 Published: 20 th April 2021	Soil science is one of the branches of agriculture, and the soil is a place of testing for all living organisms, but the soil itself has emerged and is developing under the influence of these living organisms. In brief, we provide information about the origin of the soil on the land of the earth.
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Soil science is one of the branches of agriculture, and the soil is a place of testing for all living organisms, but the soil itself has emerged and is developing under the influence of these living organisms. In brief, we provide information about the origin of the soil on the land of the earth.

The soil-forming process began with the appearance of life on the land surface, with the impact of protozoan organisms on the rock. The primary organisms that could take part in soil formation were bacteria and algae. With their impact on the rock, the primary soil-forming process began. Dying primary microorganisms eroded the rock with organic matter and created the necessary conditions for the development of groups of organisms.

For bacteria and algae, fungi, horsetail, plow, ferns, mosses, and finally angiosperms. With the appearance of higher plants with a powerful root system that penetrates deep into the rock, the soil-forming process intensified. Along with the vegetation, the soil was populated by animal organisms, which also influenced the soil formation process.

As a result of the vital activity of plants and animals, there was an accumulation of organic residues and humus, in which the elements of ash and nitrogen food of plants were concentrated. With the accumulation of organic matter in mineral soils, the water regime improved, it became more stable. So gradually the soil developed from the barren rock.

In the Tertiary period, coniferous and broad-leaved forests, meadows and grassy steppes were widely spread over land, under the cover of which the corresponding soils were formed. By this time, the climate zones on the globe were clearly separated.

In the Chevertic period, as a result of continental glaciation, the soil-forming process was interrupted on a significant part of the land (about 50-60 %). On the territory of the spread of glaciers, the soil cover was completely destroyed, the soil of which was called "ancient".

In subtropical and tropical areas where there was no continental glaciation, the soil cover is largely preserved from the Tertiary period. After the end of the ice age, the modern soil-forming process began, the soil of which was called "modern" [1].

The first attempts to generalize the knowledge about the soil accumulated by farmers, refers to the ancient period. So in the writings of the ancient Greek philosophers who lived in the third century BC, Aristotle and Theophrastus, there is a division of soils into beautiful, good, fertile, acceptable, depleted, poor, barren. However, the development of soil science as a science began much later. In the works of scientists from Rome, M. C. Cato, N. T. Varro, L. Y. Columella, P. M. Virgil who lived in Rome in the first century BC, some data is given, even there was a speech about measures to increase soil fertility.

The great scientist of the Uzbek people who lived in the Middle ages of our era, Abu Rayhan Muhammad ibn Ahmad Beruniy, studied the valuable and useful properties of minerals of the lithosphere and as a result of which he wrote a "collection on the study of jewelry".

This valuable work of Abu Rayhan Beruniy was the initial guide in the study of the parent rock of soils and minerals.

In 1563, the French scientist and naturalist Vernard Polissy wrote the work "About various salts in agriculture". Here we were talking about the fact that the soil provides plants with mineral nutrition, which was considered correct.

However, these thoughts were not known to the people for a long time. In 1629, the Belgian scientist Van Helmont announced that plants feed on water.

At the beginning of the XIX century, the works of the German scientist A. Thayer appeared.

"The theory of humus", where it is said that plants feed on the so-called humus.

In 1840, the German chemist J. Liebig proved the infidelity of this doctrine.

The most important feature of the soil is its fertility, the ability to produce crops in field crops and natural plants.

The soil creates necessary and irreplaceable food for people, fodder for animal husbandry and cheese for industry.

It is not for nothing that the soil is called the property of the people, the wealth of the country. This is why the concept of mother earth exists.

M. V. Lomonosov first suggested that the development of soil occurs in time as a result of the interaction of plants and rocks. In his published work "The Layer of the Earth", he provided correct information about the soil, laid the foundation for the science of soil science and finally justified the incorrectness of the teaching that existed before him about the torture of plants by organic substances.

The study of modern soil science is associated with the names of great Russian scientists: V. V. Dokuchaev, P. Kostichev, N. M. Sibirtsev, V. R. Williams, K. D. Glinka, L. I. Prasolov, P. S. Kossovich, K. K. Giedroyts, I. V. Tyurin, I. P. Gerasimov, V. I. Kovda, I. S. Kaurichev, V. M. Friedland, M. A. Glazovskaya and others. [2]

Such scientists as M. Bahodirov, A. Rasulov, M. A. Pankov, N. V. Kimberg, A. I. Prasolov, S. S. Neustruev, N. A. Dimo, S. P. Suchkov, R. K. Kuziev, M. Khasanov, O. Kasimov, S. Azimbayev and others made a great contribution to the study of the soils of Central Asia and Uzbekistan.

Because of its global importance, the disciplines of soil geography, soil genesis, soil physics, soil chemistry, soil biologia, soil microbiology, soil reclamation, soil ecology, and soil hydrology have emerged on the basis of soil science.

Soil science is closely related to the subjects-geology, history of the earth, history of the development of the organic world, the structure of the earth, geology, mineralogy, archeology, biology, physics, chemistry, physic-colloidal chemistry, agrochemistry, agriculture, crop production, plant physiology, fruit growing, vegetable growing, viticulture, forestry, phytopathology, entomology, animal husbandry and others.

At present, there are hundreds of soil research institutes in the world, and specialists in soil science are trained in universities, agricultural academies, and institutes.

Thus, the training of highly qualified specialists in soil science is the main task of the teaching staff of the Department of Ecology and Soil Science of the Termez State University.

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