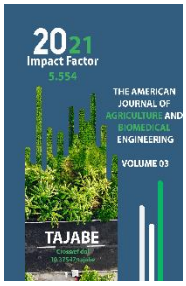
The American Journal of Agriculture and Boimedical Engineering
(ISSN – 2689-1018)
Published: December 30, 2021| **Pages:** 33-37
Doi: https://doi.org/10.37547/tajabe/Volume03Issue12-08

IMPACT FACTOR
2021: 5. 554

OCLC - 1121105746



Journal Website: https://theamericanjournals.com/index.php/tajabe

Morphological Structure Of Mountain Soils

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ABSTRACT

This article discusses morphological structure of mountain soils. The mountainous regions of the Republic of Uzbekistan are located mainly in Tashkent, Surkhandarya, Samarkand, Jizzakh, Syrdarya, Fergana Valley and Navoi regions, and differ from each other in their greenery, charm and structure. Mountain soils are distributed sequentially according to the law of vertical zoning, depending on the altitude above sea level. The soil cover in these regions is characterized by their development (evolution), genesis, agrochemical, agrophysical properties and, most importantly, morphological structure. Each region has its own natural factors, which directly affect the development and morphological structure of the soil cover.

KEYWORDS

Mountain Soils, Morphological Structure, Altitude Above Sea Level.

INTRODUCTION

First - general and specific features in the development (evolution), genesis of mountain soils; second - the subordination of mountain soils to the laws of vertical zoning; third - each mountain soil type is characterized by brief fertility and environmental indicators (melkozyom layer thickness, skeletal mechanical composition, humus, aggregate condition, degree of erosion, slope.

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The process of soil formation in the mountainous region depends on the distribution, type, condition of vegetation cover on its different slopes, the influence of various natural factors. Each soil type has a unique structure with humus content, reserves, humus layer thickness, melkosyom, carbonate content. These are directly related to climate. These changes are reflected in the morphological features of the soil. [1,4,5]

OBJECT OF RESEARCH AND METHODS

In order to give a detailed description of different soil types, to study their morphological structure, soil incisions were dug on different slopes, genetic layers were separated and their morphology was deeply analyzed. The object of research is the Chatkal State Biosphere Reserve, located in Parkent district, Tashkent region.

THE MAIN RESULTS AND FINDINGS

The research was conducted on the basis of generally accepted methods in soil science. This was proposed by V.V.Dokuchaev, who was widely used in soil science, and was reflected in the research of A.Nazarov, G.Mirkhaydarova, G.Djalilova, which was developed by S.A.Zakharov and conducted in the same area.[2,3,6]

1. Expedition with comparative geographical route
2. Morphological examination in a stationary field.

ANALYSIS

The first method of morphogenetic properties of soils was given a detailed description of its structure. To carry out the study, a site was selected from the opposite slopes (slope degree is measured in eclimeter), taking into account the natural conditions for the cross-section that initially corresponded to the tasks in the field. Soil sections were excavated from the identified area for extensive analysis (height, slope, degree of erosion, vegetation condition, plant type, relief, soil-forming parent rock) to analyze the soil according to its complete external structure, and from genetic layers for laboratory analysis. samples were taken.

In the section, genetic layers (horizons) that differed from each other by morphological features were separated and measured in centimeters (a roulette was used to separate the genetic layers). Each isolated soil genetic layer was identified by its name and letter (A accumulative, V transient, C parent rock (materinskaya poroda) and D rock). Soil samples were taken for morphological features of genetic layers (genetic layer, genetic layer thickness, color, mechanical composition, structure, soil formation (biological and chemical obrazovanie), compounds, carbonates and stagnation (skletnost) degree of boiling in hydrochloric acid). Cameral work was carried out on the obtained soil sections. New lesions were found in almost all incisions in the soil incisions.

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Picture. Mountain soil morphological views

All lesions that occur late in the soil retain their reflection in the appearance of the soil incision. In particular, the morphology of the cuts from the northern, southern, southern and eastern slopes differs from each other. It is important that the shortness of the soil cover, with the abundance of rocky fragments of rocks, always the lack of water at the top of the regime negatively affects the plants growing here [3,5,6]. In the soil sections, the genetic layers are clearly visible as shown in the figure.

The mountain brown soils are divided into types, differing in distribution, morphological structure, properties and types. This mountain brown, which is formed under conditions favorable to the alluvial xeromorphic regime for soil formation, is scattered in partially open, waterlogged parts. The color is a slight shortening to other soils, which are dark gray in color, and appear to change color. Kupcha has a dusty, water-resistant structure, characterized by the presence and diversity of a weakly clayey, denser layer, which is characterized by a high degree of stonyness, depending on the upper part of the soil section of the carbonates. ToG Due to the fact that brown carbonate soils are developed on steep slopes, as a result of improper work in these areas, the loss of plants, cutting down trees, unplanned grazing immediately leads to soil degradation.

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Picture. Carbonaceous fungi in the morphological appearance of the soil

The most dangerous disease known to mountain soils is erosion processes. That is, the top humus layer of the soil is washed away, which, of course, depends on the relief of the area, the type of vegetation.

Mountain brown soils are formed under conditions usually associated with the process of carbonate irradiation. It is also a characteristic feature of the chemical composition of soils - the large amount of SO2 - carbonates in the genetic layers of the soil.

The amount of SO2 - carbonates in mountain brown soils varies. First of all, the amount of carbonates is the washing of this or that layer, depending on the conditions of formation of these brown soils. The depth of leaching of carbonates, including the formation of the carbonate-illuvial layer, depends on a number of factors, primarily the amount of precipitation and the rate and depth of its leaching into the soil layers, the carbonate content of the parent rock and finally the relief conditions.

Picture. Soil morphology washed from mountain brown typical and mountain brown carbonates

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It is known that relief in mountainous areas is the strongest soil-forming factor. It redistributes rainwater and solar energy. This, in turn, depends on the heating and cooling regime of the slope, the degree and depth of moisture of the soil layers, and finally the solubility of water-soluble compounds in the soil, including carbonate compounds.

The amount of carbonates in brown soils depends on the conditions under which it develops. In the areas we surveyed, brown carbonate soils are considered to be mainly carbonate due to their southern, low moisture content and formation in the lower parts of the slopes. The amount of SO2 carbonates in these soils fluctuates between 6-10 percent.

CONCLUSION

It can be concluded that the morphological structure of mountain soils is directly influenced by various natural factors. A typical representative for mountain soils are brown soils, which are important in that they carbonate their mineral portion. The level of carbonate and in which soil layer and at what depth it occurs depends on the stage of development of that soil. With the presence of carbonate on the surface of carbonate soils, the placement of carbonates in typical and non-alkaline soils is determined by the depth and intensity (intensity) of soil moisture with atmospheric precipitation.

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