

## MICROBIOLOGICAL ACTIVITY OF SOIL. REPRODUCTIVE ACTIVITY AND IMPORTANCE OF TUBERCLE BACILLI

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**Abstract:** The article provides information on the microbiological activity of the soil, the types of microorganisms in the soil, their role in increasing soil fertility, symbiotic relationship.

**Keywords:** Microorganisms, aerobes, anaerobes, saprophytes, symbiosis, root hairs, stems, leghemoglobin, symbiotic nitrogen accumulation, plant root system, symbiotic activity.

It is known that the soil contains various district microorganisms, increases and operates. Although the number of microorganisms is different from different layers of soil and in climatic conditions, the most common in the surface layers of the soil. In the soils rich in organic substances, microorganisms are many than humus soils. Thicks are most convenient for soil for the development of microorganisms. It always includes the necessary nutrients, moisture, oxygen; He is well protected from the harmful effects of direct sunlight and dry sunshine. The chemical composition, structure, moisture and air of various types of soils is different from the environmental reaction. Therefore, the composition and number of microorganisms living in them is not the same. The composition and number of microorganisms in the soil is also affected by climatic conditions, seasons, vegetable cover and other conditions. The number of microorganisms at a depth of 1-2 cm is 10-20 times more in the surface layer of the soil. In the upper layers predominates the aerobic microorganisms, rich in plants and animal residues and well-provided with air. In deeper layers of the soil will have less organic compounds and low air, resulting in an advantage of anaerobic bacteria. The development and vital activity of microorganisms depend on their environment. The convenient living conditions, the more intensive development of the living conditions, and conversely, in the conditions where it is less favorable, their development will slow down. Knowing the basic conditions of the interaction of environmental and microorganisms allows you to successfully combat or develop microorganisms in the production processes. By regulating the external environment, not only to manage the life activities of microorganisms, but also to cause the necessary changes, can be obtained new, more useful forms of microorganisms.

The most common among soil microorganisms bacteria, actinomitsets, microscopic fungi, protozoa, viruses, etc. Currently, bacteria, actinomsets and fungals are active in the formation of soil cycle. The very important role of microorganisms is deep and complete organic matter. The peculiarity of the zI is that they are the ability to disintegrate the most complex high molecular compounds to ordinary products: gases (carbon dioxide, ammonia, etc.), water and simple mineral compounds. At the same time, the number of microorganisms and their types

that reflect the most important features of the soil: the reserves of organic substances, the level of the amount of humus, the content of the nutrients, reactions, moisture and moisture.

Nitrogen-fixing organisms among soil microorganisms are important. Nitrogen-fixing microorganisms; Nitrogen-fixing microorganisms that master the molecular nitrogen in the atmosphere and transfer it to organic compounds. Nitrogen-fixing microorganisms include a symbiont living with a huge bacterium with legumes. 100,250 kg or more at each hectare of plants planted plants. The nitrogen is collected. The biological nitrogen accumulated by the Bala root increases soil fertility, increasing the amount of humus in the soil, reducing hydrolytic acidity. The leguminosae who form a nodule in the roots of plants (caps, jujubes, etc.) are also microorganisms that form a nodule in the roots of plants. Some nitrogen bacteria develop in the formation of nodules in some tropical plants. Nitrogen accumulation also includes active microorganisms, which live freely in the soil and live in water bodies - cyanobacteria organisms. Many species of blue-green masses (Nostoc, Anabaena, etc.), some head of dark sulfur bacteria-225 routine and green bacteria are also microorganisms that also assemble. The 80 species of blue-green alternatives are known in the 80 species of nitrogen, and 45 species are distributed in Central Asian soils and water bodies. Some fungi species, yeast, spirochetes and other atm. participates in the collection of nitrogen. Nitrogen-fixing microorganisms are in providing nitrogen in nature, ie ATM. It is of great importance to the appearance that uses nitrogen plants

In the root of the legume, many microorganisms, including those typical of this plant, develop. The root enters the root of streaming bacteria through smaller roots. In a large number of substances that are divided by the roots, it is released around Trypan blue. tubercle bacteria make this substance to indol-3-acetic acid. Makes the form of "nodular nodule" of the root platform. tubercle bacteria belong to the cell from places where the roots can pass the shell of the root, and the nodule formation is played in the rise of the root. It will always be in small quantities in the root, and it will lead to a partial melting of the cell shell and extends the root bacterial to the root cell that results in the root cell. "Infective IP" is formed in the root. It is a syrupy mass, in which the cells in the volume of reproduce bacteria are prevalent. This is a "infective nodule" root plants and the epidermis. The speed of movement is 100 - 200  $\mu\text{m}$  per hour or 5 - 8  $\mu\text{m}$  / h. The movement of the thread may have based on the formation of a bacterial cell. Typically, a single "infective thread" is formed in the root. The size of the yarn is connected to the entire way, with cellulose cobag. As you entered the IP, the plant cells begin to speed and the tumors appear. When the tubercle bacterial cells move to cytoplasm, their belts are visible. So, cells begin to become bacterioids. Bacterioids are not divided, but the size is enlarged. Slow - slowly occupies the entire cell. Mitochondrion and plasmids are located by cell walls. Leghaemoglobin is formed in the nodules.

In short, the distinctive feature of soil microorganisms; However, the composition of microorganisms and their types that reflect the most important features of the soil: the reserves of organic substances, providing the content of the humus, the composition of the nutrients, moisture and moisture and ventilation. In turn, in turn, lead to the higher the fertility of soil. The enriching the more to be. It is the greater than an increase in the accumulation of plant growth and plant growth in the conditions of symbiotic nitrogen and plant growth in the plant growth of plant growth in the conditions of symbiotic nitrogen and planting regulators of the plant growth. The nodules are occupied by plant growing legumes, and from the symbiotic and macrobiont from the symbiotic effects of the symbiotic effects, it is also able to grow in saline areas as well as in saline areas.

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