

STUDY AND ANALYSIS OF THE ECOLOGICAL  
CONDITION OF THE SOIL

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**Anatomy:** Soils are mainly composed of mineral, organic and organomineral substances. Minerals make up 85-90% of the weight of the soil. Of the soils that are farmed in our republic: half are oxen, a quarter are Meadow gray, pine, and sandy-loamy soils. Land, subsurface and surface riches, aquatic flora and fauna and other natural reserves are nationwide riches and are under state protection. It is impossible to be allowed to be rude to nature after all, nature both saturates and dresses us and brings our people to Joy.

**Keywords:** soil, mineral fertilizers, chemical means, heavy metals, yield, diseases.

It has been proven in many scientific studies that more than half of the crop obtained from agricultural crops and its quality is due to the application of mineral fertilizers. This, in turn, indicates that the role of agrochemistry (mineral fertilizers) in the field is in recording. To the proof of scientists of the world: "in exchange for the application of chemical agents (mineralogists), which are considered the great discovery of mankind, pesticides, herbicides, defoliant, insecticides, designants, repellents, attractants, zoocides, fungicides, insecticides, acaridsides and bacteriocytes, etc.), chemical agents weigh 1.8-4.6 kilograms per area of the crop. However, the negative impact of agrochemicals on soil and biosphere ecology: mainly depends on the norm and technologies of application. Enzymes in the soil act as catalysts for basic biochemical functions and several important reactions. Enzymes in the soil are essential to assess soil contamination with heavy metals. The activity of enzymes is influenced by different metals in different ways, with which different chemical reactions are carried out. Heavy metals indirectly affect soil enzymatic activity, while enzymatic activity also changes due to changes in the population of microorganisms. It follows from this that it is possible to determine using enzymatic activity as an indicator that determines which heavy metal the soil is contaminated with and exceeds the meiori.

Ferrous metals include I.I. An example would be about 40 chemical elements of

the Mendeleev periodic table. Of these, 13 are soil and environmental pollutants. Including: mercury, spirit, cadmium, lead, arsenic, copper, vanadium, antimony, molybdenum, cobalt, etc.

In the production of phosphorus fertilizers from phosphorus raw materials (ammophos, superphosphate, etc.) when used (radium, uranium, thorium, strontium, radium, fluorine, cadmium, zinc, etc.) When these elements remain in the plowing layer of the soil, they reduce the yield and lead to a deterioration in the ecological condition.

We consider it necessary to use organic (local fertilizers per hectare (15-20t/ha) to reduce the harmful content of heavy metals in the soil. Because local fertilizer (manure, peat, siderates, etc) decomposes heat in the soil. compared to theft, 25-30% carbon dioxide gas is released, the activity of microorganisms reduces the concentration of harmful and toxic salts in the soil solution. Ensures that heavy metals do not pass into the composition of plants and products, that is, the environmental conditions for the normal growth and development of the plant are renewed. When planting in rotation, soil fertility increases, productivity increases, water costs and Acorn disease decrease, the necessary elements accumulate in the soil, as a result of which the agromeliorative state of organic matter in the soil rots quickly improves. Such processes lead to an increase in humus in the soil and improve productivity. Ferrous metals include fluorine, vanadium, chromium, manganese, cobalt, nickel, copper, zinc, arsenic, molybdenum, cadmium, mercury, lead, tungsten, wolfram, etc. Environmentally hazardous fertilizer includes metals: mercury, lead, cadmium, arsenic, selenium, fluorine. Zinc, enters. The metallurgical industry annually expels an average of 150 million tons of copper, 120 million tons of zinc, around 90 million tons of lead, 12 million tons of nickel, 1.5 thousand tons of molybdenum, 800 tons of cobalt, 30 tons of mercury into the environment. Approximately 1000mg/kg of copper, 1000mg/kg of iron, 10mg/kg of nickel have also been found in chemical waste. Rolled metals also fall into the soil with mineral fertilizers. In the current period, technologies for the production of environmentally pure products are established in most states, since chemicals used in agriculture are the main reason for the origin of various diseases to the composition of the soil and to humans, showing their negative impact on the quality of the products grown. Taking into account similar negative aspects, it is advisable to effectively use neighborhood fertilizers in the production of rich and high-quality products from agricultural crops (manure campus, rotting various agricultural waste, crop manure in exchange, etc.) in combination with mineral fertilizers to rot local fertilizers and restore the extensive use of biogumus, as well as zvenos that restore soil fertility.

Of the scientific research studies studied, it is possible that a wide variety of plant and animal organisms live in the composition of the soil. They participate in the formation of soil fertility and play a large role in improving the agrochemical,

agrophysical, reclamation and biological, properties of the soil, improving the efficiency of fertilizers placed on the ground.

In conclusion: over the years, the activity of living organisms in the soil has significantly decreased due to the use of mineral fertilizers and toxic chemicals in high norms on crops, as a result of which soil fertility has decreased, and the effectiveness of fertilizers introduced has also decreased. It should be noted that it is important to reduce the economic and environmental efficiency of fertilizers due to wastage in their storage, transportation and application, as well as the fact that the ballast and toxic mouthpieces contained in the metals are high in additives and do not meet the requirements of the properties and properties of mineral fertilizers, and other factors. To eliminate the problems that arise when applying chemical agents in agriculture.

- First : it is necessary to switch from chemical methods of combating plant diseases and pests to a full-fledged biological method

- Second: vos from chemical agents such as Biosphere-disrupting mortar, additional harm that are purified from chemical substances, heavy metals should not contain toxic elements, meet the requirements of plants, that is, the production of self-preserving macro and micro elements, myostimulant and nitrification inhibitors, and "flotation" methods in the preparation of fertilizers should be widely introduced.

- Third: the development of theoretical foundations and practical methods of restoring and regularly increasing soil fertility on the basis of which the establishment of improving soil ecology and fertility is one of the pressing issues of this period.

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