

EFFECT OF BIOCHAR ON AGROCHEMICAL AND PHYSICAL AND CHEMICAL INDICATORS OF SOIL

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Biochar is a porous substance that is obtained by burning organic waste (wood, shells, corn stalks, etc.) without oxygen. The use of biochar in agriculture can lead to an increase in carbon sequestration from the atmosphere, preserving and improving the physical, biological and physicochemical quality and stability of the soil. Since biochar is chemically relatively stable and its destruction in the soil environment is slow, introducing it into the soil is considered as one of the effective means of reducing the concentration of carbon dioxide in the atmosphere and reducing the rate of climate change on Earth. In addition, when biochar is introduced into the soil, its fertility increases, it becomes possible to obtain higher and more stable yields, especially in a changing climate. This is due to the improvement of the soil structure, increasing its moisture capacity, the amount of absorbed bases, the activation of microbiological processes.

In addition, the alkalinity of biochar induced by inorganic minerals can ensure the removal of Cd and Pb by forming cadmium and lead precipitates. In this connection, bio-coal was obtained from agricultural wastes, the sorption and physicochemical characteristics of the bio-coal obtained were investigated, and experimental studies were conducted on the effect of bio-coal on the accumulation of heavy metals in the plant.