

Effect of bio-effective treatments on soil biological parameters for lettuce and basil test plants

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Bio-effective treatments can be used to protect plant protection, nutrition and improve the physico-chemical status of soils in an environmentally friendly way. In our experiment we tested some soil biology properties using biotic vaccines and abiotic natural mineral additives. As a test plant, basil (*Ocimum basilicum* L.) and Lettuce (*Lactuca sativa* var. *Capitata* L.) were used, which was grown in two organic soil on different soil. The exploration of minerals was studied by mixing **Alginite** (5% m / m). As a microbial vaccine, a spore bacterium was used for *Bacillus megaterium*, 1 ml of the plant was used to produce 1.735×10^6 CFU / ml vaccine 1 (basil) and 10 days (salad) after planting. As a negative control, sterilized soils were used to exclude natural soil microflora. The growth of the test plant was evaluated by bonitation, simultaneously testing the biological activity of soil samples by determining fluorescein diacetate (FDA) hydrolysis and dehydrogenase soil enzymatic activity (DHA) activity. The number of cells of the digestible microbe in the soils was verified by the most probable number (MPN) method. We have found that has been successfully contributed to the healthier development of plants on both surfaces. Enzyme activity did not follow this trend proportionally. Among the treatments applied, sterilization of the soil increased the number of detected, digestible microbes. Live and lifeless biocomputer complex treatments can be recommended as an effective solution.