



Specific benefits of soil improvers #2

A second and very important benefit of Soil improvers is the capability to increase carbon sequestration

Carbon sequestration: Compost plays a crucial role in carbon sequestration, a process that helps mitigate climate change. This process is defined as a persistent increase in soil organic carbon resulting from the removal of carbon dioxide from the atmosphere.

The repeated application of compost can increase the soil organic carbon content by up to 90% compared to unfertilized soil and up to 100% compared to treatments with chemical fertilizers.

Studies have shown that, over a period of 4-12 years, between 11% and 45% of the organic carbon applied to the soil as compost remained as soil organic carbon. The main benefits of soil carbon sequestration include:

Mitigating climate change: Soil carbon sequestration reduces the amount of carbon dioxide in the atmosphere. Improving soil health: Soil organic carbon contributes to soil structure, water retention, and fertility. Reducing methane emissions: Applying compost to soil can reduce methane emissions from the decomposition of organic waste in landfills.

The effectiveness of carbon sequestration through compost application depends on several factors, including the amount of compost added, the maturity and stability of the compost, and soil conditions. It is important to note that the soil's ability to sequester carbon does not increase linearly with the application of compost.

The greatest benefits are observed in the first 20 years or so, after which the increase in soil organic carbon slows down as a new equilibrium is reached.

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