



Specific benefits of soil improvers #3

Soil improvers, such as compost, can help suppress plant diseases. This occurs through the promotion of beneficial microorganisms in the soil that compete with pathogens. The effectiveness of disease suppression depends on several factors, including the following:

Compost inclusion rate: High amounts of compost, often with inclusion rates below 20% v/v in the soil, are often necessary to achieve significant disease suppression in the field.

Type of compost: Different types of compost can have varying disease suppression capabilities. For example, compost derived from green waste may be effective in suppressing certain soil pathogens.

Soil type: The effectiveness of disease suppression can vary depending on the soil type.

Type of disease: Compost may be more effective in suppressing certain types of diseases than others. Some examples of pathogens suppressed by compost, include *Fusarium oxysporum* and *Pythium* spp.

Most of the research on disease suppression by compost has been conducted in lab environment, and further research is needed to fully understand the effectiveness of compost in suppressing diseases in field conditions. In general, the use of soil improvers like compost can help create a healthier and more resilient soil environment, which can help reduce the incidence of plant diseases.

However, it is important to use compost appropriately and in combination with other disease management practices to achieve the best results.

Key points:

- Compost promotes beneficial microorganisms that compete with plant pathogens.
- The effectiveness of compost in disease suppression depends on factors like the amount of compost used, the type of compost, soil type, and the specific disease.
- More research is needed to understand how compost works in larger, field-based environments.
- Using compost in combination with other disease management practices is recommended for optimal results.

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