

# Organic amendments and their influences on plant-parasitic and free-living nematodes: a promising method for nematode management?

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**Summary** – The use of organic soil amendments, such as green manures, animal manures, composts or slurries, certainly has many advantageous aspects for soil quality and is suggested as a promising tool for the management of plant-parasitic nematodes. However, during a recent literature survey we also found numerous studies reporting an increase of plant-parasitic nematodes after the use of organic amendments. Therefore, we critically re-evaluated the usefulness of organic amendments for nematode management and suggest possible mechanisms for a stimulation of plant-parasitic nematodes, as well as mechanisms that might be causing a reduction of plant-parasitic nematodes. In addition, we also elucidate a possible mechanism that might be responsible for the observed overall positive effects of organic amendments on crop yields. It is likely that a significant part of this is, *inter alia*, due to the proliferation of non-pathogenic, free-living nematodes and their overall positive effects on soil microbial populations, organic matter decomposition, nutrient availability, plant morphology and ecosystem stability.

**Keywords** – biodiversity, bio-indicators, compost, disease suppression, green manure, maturity index, nutrient cycling, slurry, soil health.