

# ***The trophic diversity of nematode communities in soils treated with vermicompost***

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## **Summary**

The effects of *vermicomposts* on plant parasitic, fungivorous and bacterivorous *nematode* populations were investigated in grape (*Vitis vinifera*) and strawberry (*Fragaria ananasa*) field crops. Commercially-produced *vermicomposts* derived from recycled paper, and supermarket food waste were applied to replicated plots at the rates of 2.5 t ha<sup>-1</sup> or 5.0 t ha<sup>-1</sup> for the grape crop and 5.0 t ha<sup>-1</sup> or 10 t ha<sup>-1</sup> for the strawberry crops. All *vermicompost* treatments were supplemented with inorganic fertilizer to balance the initial availability of macronutrients especially N, to the crop in all plots. After extraction from soil samples in Baermann funnels, nematodes were identified to *trophic* levels under a stereomicroscope. *Soils* from all of the *vermicompost-treated* plots contained smaller populations of plant parasitic nematodes than soil from inorganic fertilizer-*treated* plots. Conversely, populations of fungivorous nematodes and to lesser extent bacterivorous nematodes increased in the *vermicompost-treated* plots in comparison with those in plots *treated* with inorganic fertilizers.

Keywords: Nematodes; *vermicomposts*; *trophic* levels; organic wastes