

植物保护—研究报告

长期施肥对土壤线虫群落结构的影响

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摘要:

为摸清长期施肥对土壤线虫群落结构的影响, 对哈尔滨地区黑土长期施肥条件下土壤线虫群落结构特征变化进行了研究, 结果表明: 长期施肥条件下, 由于土壤环境状况发生了变化, 土壤线虫群落结构也发生了相应的改变, 施肥土壤线虫群落的种类及数量与对照相比均呈下降的趋势; 施肥能够显著增加土壤食细菌线虫的相对丰度, 并对植物寄生线虫有明显的抑制作用, 尤其是施用有机肥及NPK肥不仅能显著降低土壤中植物寄生线虫的数量, 而且对植物寄生线虫种的多样性也有明显的抑制作用。

关键词: 线虫群落

Effects of Long-term Fertilization on Nematode Community Structure

Abstract:

To understand the effect of long-term fertilizing on the structure of soil nematode community, the distribution of nematode communities in black soils of different long-term fertilizing managements from Harbin area was investigated. The results showed that the structure of soil nematode community changed significantly after long-term fertilizing, owing to the change of soil environmental conditions. The number and species of soil nematode community decreased and relative abundance of bacterivores increased after long-term fertilizing. Plant-parasites can be controlled significantly by long-term fertilizer managements; espically in soils of organic matter and NPK management treatments, the biodiversity of plant-parasites was controled significantly too.

Keywords: nematode community

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