

长期施肥条件下设施蔬菜地土壤养分变化研究

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Change of soil nutrients under greenhouses under long-term fertilization condition

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摘要 设施蔬菜地土壤与其相邻露地菜田土壤比较,有机质、N、P、K、有效S、有效Mg、有效Mn、有效B、有效Zn和有效Cu含量随着设施蔬菜地使用时间延长而增加,其中有机质和N、P、K增加幅度为:磷>钾>氮>有机质;但土壤有效Ca和有效Fe含量明显下降,且种植蔬菜时间越长含量越低。设施蔬菜地土壤及其地下水硝态N含量也显著增加,其中土壤耕作层和地下水硝态N含量分别增加2.10~8.44mg/kg和5.56~49.25mg/L。

关键词: 设施蔬菜地 土壤肥力 地下水 硝态氮 设施蔬菜地 土壤肥力 地下水 硝态氮

Abstract: The content of organic matter, nitrogen, phosphorus and potassium in covered soils were increased compared with uncovered soils nearby, the rate of increase was P>K>N>OM, and the contents of available S, Mg, Mn, B, Zn and Cu in covered soils were also increased. There was a tendency that the contents of organic matter and most nutrients were increase with the cultivating years. The contents of available Ca and Fe in covered soils were distinctly decreased compared with uncovered soils nearby, and there was a tendency that the longer the soils were cultivated, the lower the content of available Ca and Fe were. The NO₃⁻-N content in the top layer of covered soils and in the groundwater of covered soils increased by 2.10-8.44mg/kg and 5.56-49.25mg/kg compared with uncovered soils nearby, respectively.

Keywords:

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