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农村发展—生态资源环境

垄作免耕对土壤团聚体中微生物生物量N和脲酶活性的影响

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摘要:

笔者分选出垄作免耕、常规耕作、冬水田每种耕作方式下的7个粒径的土壤团聚体，测定了3种耕作方式下土壤微生物生物量N及土壤团聚体中脲酶的活性，以试图找到土壤团聚体中脲酶的活性与土壤耕作方式的关系，以及土壤团聚体中脲酶的活性和土壤微生物生物量N的相关性。结果表明：土壤微生物生物量的分布主要受土壤结构体的制约，受耕作方式的影响不显著；不同的耕作方式对土壤团聚体中脲酶活性的影响比较明显；脲酶活性与微生物生物量N无显著相关性，说明紫色水稻土中脲酶的主要来源可能不是微生物。

关键词: 微生物量N

Ridge Tillage on Soil Aggregates Microbial Biomass N and Urease Activity

Abstract:

This article sub-elected seven sizes of soil aggregate under ridge tillage, conventional tillage and winter paddy field. Soil microbial biomass nitrogen and urease activity of soil aggregates were measured under the three tillage practices. The author tried to find the soil aggregates and soil urease activity of the relationship between tillage or soil aggregates in the urease activity and microbial biomass N correlation. The results showed that: the distribution of microbial biomass was mainly affected by soil structure, and not significant by tillages. The effect of different tillage methods on soil aggregates in the urease activity were obvious; urease activity and microbial biomass were not significantly correlated, indicating that the main source of urease in purple paddy soil might not be microorganisms.

Keywords: microbial biomass N

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