

不同植烟模式对烤烟产质量、土壤养分和酶活性的影响

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Effects of cropping patterns on yield and quality of flue-cured tobacco, soil nutrients and enzyme activities

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摘要 在贵州烟区具有代表性的第四纪黄壤上,进行了连续6年的田间定位试验,研究了烤烟连作,烤烟-玉米轮作和玉米-烤烟-烤烟轮作三种种烟模式对烤烟的产量和品质,土壤养分以及酶活性的影响。结果表明,烤烟连作降低烤烟的产量、质量和土壤pH,提高有效磷和速效钾含量,抑制脲酶和蔗糖酶活性,增加过氧化氢酶活性。相反,烤烟-玉米轮作和玉米-烤烟-烤烟轮作有益于提高烤烟的产量和质量,是值得推广的种烟模式。

关键词: 烤烟 植烟模式 土壤养分 土壤酶

Abstract: A 6-year fixed field experiment was carried out to study the effects of different cropping patterns on the yield and quality of flue-cured tobacco, soil nutrient and enzyme activities on a typical Loess Soil. Three cropping patterns were adopted: Continuous tobacco cropping, tobacco-corn cropping and corn-tobacco-tobacco cropping. The results showed that continuous tobacco cropping resulted in a poorer yield and quality of tobacco, lower pH, activities of urease and invertase in soil were observed under compared to tobacco-corn and corn-tobacco-tobacco cropping pattern, but a higher available P and available K as well as activity of catalase in soils. Crop rotation was recommended in the local area because it could increase the yield and improved the quality of tobacco.

Keywords: flue-cured tobacco; tobacco cropping modal soil nutrients soil enzymes

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