

农学—应用研究

作物茬口与施肥对连作大豆化学品质的影响

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摘要:

采用两因素有重复完全随机试验, 研究苜蓿、玉米和大豆3种茬口与施肥对连作大豆化学品质的影响。试验结果表明, 茬口主效应对连作大豆的蛋白质含量、蛋白和脂肪的总含量分别有极显著和显著的影响, 对脂肪含量影响不显著; 即连作2年的大豆蛋白质含量分别比苜蓿茬和玉米茬上连作1年的蛋白质含量高1.08%和1.32%, 差异极显著; 连作2年的大豆蛋白质和脂肪总含量比玉米茬上连作1年的二者总含量高1.45%, 达显著水平。施肥主效应对连作大豆的蛋白质、脂肪含量及二者的总含量影响均不显著, 脂肪含量随施肥量增加有升高的趋势。茬口主效应与施肥主效应的互作对连作大豆的蛋白、脂肪含量及二者的总含量影响均不显著, 大豆茬上施大豆专用复合肥 375 kg/hm² (A3B4) 组合蛋白质含量及蛋白和脂肪总含量最高, 分别达39.86%和58.19%。茬口、施肥主效应及二者互作效应对蛋白质含量及蛋白质和脂肪总含量的影响趋势基本一致。

关键词: 化学品质

Effects of Crop Stubbles and Fertilization on the Chemical Quality of Continuous Cropping Soybean

Abstract:

Effects of crop stubbles and fertilization on the chemical quality of soybean continuous cropping (SCC) was studied by completely randomized experiment in Longzhen Farm in 2003. The results showed that the protein contents, the total contents of protein and fat of (SCC) in alfalfa, maize, and soybean stubbles varied very significantly and significantly respectively, but fat content did not significantly, namely the protein content of (SCC) for 2 years in soybean stubble was very significantly higher 1.08% and 1.32% respectively than that of (SCC) for 1year in alfalfa and in maize stubble, the total contents of protein and fat of (SCC) for 2 years in soybean stubble was significantly higher 1.45% than that of (SCC) for 1year in maize stubble . The effects of the fertilization on the protein, fat contents, and the total contents of the both of SCC were not significantly, but the fat content has raising tendency with the fertilizer amount increase. The effects of the interaction of stubbles and fertilizers on the protein, fat contents and the total contents of the both of SCC were all not significant, the protein content, and the total content of protein and fat in the interaction combination (A3B4) were the highest, 39.86% and 58.19% respectively. The effects tendency of crop stubbles, fertilization and the interaction of the both on the protein contents, the total contents of protein and fat of (SCC) were basically same.

Keywords: chemical quality

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