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农学—研究报告

生物有机肥对木薯产量及土壤理化性状的影响

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摘要:

试验以木薯品种‘新选048’为供试品种，用湘桂生物有机肥作追肥，共设CK（0 kg/hm2），A（150 kg/hm2），B（300 kg/hm2），C（450 kg/hm2），D（600 kg/hm2）5个处理，观察测定木薯农艺性状、生理指标及土壤理化性状。结果表明：施用生物有机肥后，改善了木薯地的土壤物理性状，增加了土壤的有机质、碱解氮、速效磷、速效钾含量，促进了木薯的生长，增加了木薯块根的产量，增长幅度分别为A处理1.59%、B处理22.93%、C处理38.01%、D处理15.98%。其中以C处理450 kg/hm2增产效果最佳。由此可见，施用生物有机肥是改善土壤理化性状，提高木薯产量的一个有效途径，在中等土壤肥力条件下，每公顷施用450 kg为宜。

关键词: 土壤理化性质

Effects of Bio-Organic Fertilizer on the Root Tubers Yield of Cassava and the Physical and Chemical Biological Character of Soil

Abstract:

Effects of bio-organic fertilizer on the root tubers yield of cassava and the physical and chemical biological character of soil were studied in this experiment, of which the cassava variety ‘Xinxuan048’ and the bio-organic fertilizer produced by Xianggui company were used as materials. The bio-organic fertilizers were applied on five different levels of 0 kg/hm2, 150 kg/hm2, 300 kg/hm2, 450 kg/hm2, 600 kg/hm2 in this experiment. The agronomic characters and physiological targets of ‘Xinxuan048’ and the physical and chemical biological character of soil were analyzed during the experiment. The results showed that the bio-organic fertilizer could increase the holes percent of soil, increase content of organic matter, available nitrogen, phosphorus and potassium, and promote the stems and leaves of cassava growth, and increase the yield. The mot tubers yield of the 450 kg/hm2 bio-organic fertilizer treatment was the highest which increased the root tubers yield by 38.01% higher than that of the contro1. The 450 kg/hm2, 600 kg/hm2, 900 kg/hm2 bio-organic fertilizer treatments increased the root tubers yield by1.59%, 22.93% and 15.98% respectively higher than that of the contro1.

Keywords: physical and chemical character of soil

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参考文献:

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1．杨凤铃 赵方贵 刘洪庆 刘新.不同烟草栽培地区土壤理化性质与AM真菌分布关系[J]. 中国农学通报, 2011,27(第1期(1月)): 116-120

2．解开治 徐培智 严超 张发宝 陈建生 唐拴虎 黄旭 顾文杰.不同土壤改良剂对南方酸性土壤的改良效果研究[J]. 中国农学通报, 2009,25(20): 160-165

3．闫文蓉，牛世杰，刘 燕，李先恩.丹参有效成分含量与土壤因子的关系研究[J]. 中国农学通报, 2009,25(08): 246-249

4．王树会，高家合.不同草炭处理对植烟土壤理化性状及烟叶产质影响研究[J]. 中国农学通报, 2006,22(12): 377-377

5．吕 刚，吴祥云.土壤入渗特性影响因素研究综述[J]. 中国农学通报, 2008,24(07): 494-499

6．闫文蓉，牛世杰，刘 燕，李先恩.丹参有效成分含量与土壤因子的关系研究[J]. 中国农学通报, 2009,25(08): 246-249

7．魏莎 李素艳 孙向阳 张骅 张强 郝利峰.土壤调理剂对连作切花菊品质和土壤性质的影响[J]. 中国农学通报, 2010,26(20): 206-211
