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肥料及其利用

禽畜粪便沼气发酵液的分离及肥料再利用研究

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摘要:

用硫酸铁和饱和石灰水作为凝聚剂,对禽畜粪便经厌氧发酵制取沼气的残余物(发酵液)能进行效果较好的固液分离.分离所得残渣(沼渣),经适度烘干后与化肥配制成有机复混肥.用这一新型复混肥进行的辣椒盆栽试验结果表明,该肥料能增加辣椒苗期植物体对氮、磷、钾的吸收,提高肥料利用率.与化肥相比,等养分量沼渣有机复混肥增产9.5%～11.6%,80%养分量的沼渣有机复混肥增产14.5%～16.4%.有机复混肥还使辣椒Vc提高.

关键词: 禽畜粪便发酵液 固液分离 沼渣 有机复混肥

Abstract:

By comparable experiments, we found that ferric sulfate and saturated solution of calcium hydrox-ide were good agglutinants for solid-liquid separation of the remains coming from biogas anaerobic fermenta-tion of bird's and livestock's excrement. The feces obtained through separation are organic matter which canbe manufactured into organic mixed fertilizers after being suitably dried. It was showed by chilli pot experi-ment that these fertilizers could increase uptake of N,P,K of chilli seedling and could raise the utilization ofN,P,K. The organic mixed fertilizers could increase yield of chilli about 9. 5 % - 11. 6 % in the case of 100%of nutrients and about 14. 5-16. 4% for 80% of nutrients, and raise content of Vc of chilli compared withchemical fertilizer.

Keywords: Fermented materials of bird's and livestock's excrement Solid-liquid separation FeceOrganic mixed fertilizers

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