

奉新毛竹林土壤养分空间变异性研究

郭晓敏¹;牛德奎¹;郭熙¹;陈防²;张过师¹;张斌¹;胡冬南¹

1.江西农业大学 江西南昌330045;2.中国科学院武汉植物园PPI/PPIC武汉办事处 湖北武汉430074

Study on spatial variability of soil nutrients for Moso bamboo forest in Fengxin

GUO Xiao-min¹;NIU De-kui¹;GUO Xi¹;CHEN Fang²;ZHANG Guo-shi¹;ZHANG Bin¹;HU Dong-nan¹*

1 Jiangxi Agric.Univ.;Nanchang 330045;China;2 Inst.of plant;ASC;Wuhan 430074;China

[摘要](#)[参考文献](#)[相关文章](#)Download: [PDF \(2727KB\)](#) [HTML 0KB](#) Export: [BibTeX](#) or [EndNote \(RIS\)](#) [Supporting Info](#)

摘要 利用地统计学的半方差函数,定量研究了奉新县平衡施肥毛竹林的土壤养分空间变异特征。结果表明,毛竹林土壤养分存在半方差结构,多数为球状模型。奉新毛竹林土壤的变程为32~398.m,取样距离15~20.m,能满足毛竹林土壤空间变异评价的要求。N、P、K等养分的空间相关性小,人为经营、施肥等措施对土壤速效N、P、K的影响大于Ca、B、Fe、Mg等养分。奉新毛竹林土壤养分的分数值排列顺序为:Cu>Mn>全P>Zn>P>N>Fe>K>Mg>S>OM>Ca>B>全K>全N。施肥时间长对于养分的空间分布均匀性有调和、促进作用。毛竹林土壤养分结构性变异大于随机变异,土壤内在属性(土壤矿物和地形)比人为因素(栽培管理水平和施肥措施)的影响大。

关键词: 毛竹 平衡施肥 土壤养分 空间变异性 毛竹 平衡施肥 土壤养分 空间变异性

Abstract: The characteristics of soil nutrition spatial variability have been quantitative studied using semi variogram of geostatistics function in Moso bamboo(*Phyllostachys heterocyla* cv.Pubescens) forest of Fengxin.The results showed that the soil nutrient had semi-variance structure in bamboo forest,and most of them were spherical model.The soil variance distance was ranged between 32 m and 398 m in Fengxin bamboo forest.Sample distance ranged from 15 m to 20 m can satisfy the requirement of the soil spatial variance evaluation of bamboo forest.The spatial correlation of N,P,K was low,and the influences from man-made interference,fertilization and some other measures on soil available N,P and K were larger than soil Ca,B,Fe and Mg.The order of fraction value of Fengxin bamboo forest soil nutrition was: Cu> Mn> total P> Zn> P> N> Fe> Mg> S> OM> Ca> B> total K> total N.Long-term fertilization could increase the homogenization of soil nutrient spatial distribution.The variance of soil nutrient structure was bigger than the random variance,and the influence of the internal nature on soil(soil minerals and topography) was bigger than the anthropic factors(cultivate management level and fertilizer measures).

Keywords:

引用本文:

郭晓敏¹;牛德奎¹;郭熙¹;陈防²;张过师¹;张斌¹;胡冬南¹.奉新毛竹林土壤养分空间变异性研究[J] 植物营养与肥料学报, 2006,V12(3): 420-GUO Xiao-min¹;NIU De-kui¹;GUO Xi¹;CHEN Fang²;ZHANG Guo-shi¹;ZHANG Bin¹;HU Dong-nan¹.Study on spatial variability of soil nutrients for Moso bamboo forest in Fengxin[J] Acta Metallurgica Sinica, 2006,V12(3): 420-

Service

- ▶ [把本文推荐给朋友](#)
- ▶ [加入我的书架](#)
- ▶ [加入引用管理器](#)
- ▶ [Email Alert](#)
- ▶ [RSS](#)

[作者相关文章](#)