

*Study on the Fertilization for seedlings of Masson  
Pine in Daqingshan, Guangxi Province*

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**Abstract** In this paper, the growth of the seedlings and young trees of *Pinus massoniana* are studied. The result indicates that the effectiveness of fertilization on the seedlings is significant. In this experiment,  $N_0.3P_3K_3$  is the best one with a under-ground biomass (dry weight) of 0.575 g/seedling, which is 21.6% more than that of the check (0.473 g/seedling). Over two years after planting, the height and root diameter of the young trees fertilized by  $N_1P_3K_3$  are 2.63 m and 2.54 cm respectively, but those of the young check trees only 2.13 m and 2.01 cm. There is a significant difference between them, and the analysis shows that there is a positive correlation between the height and root diameter of young trees and the under-ground biomass of the seedlings.

**Key words** *Pinus massoniana*, seedling fertilization, seedling growth

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**“用超短波技术实现森林防火、生产指挥综合通信网  
技术研究”通过鉴定**

该研究由中国林科院资源信息所、吉林省林业厅林工局、长春邮电学院无线电系、吉林省红石林业局的20多名科技人员共同完成。针对长白山区山高坡陡、林木茂密的复杂情况，深入研究了山地林区电磁波的传播模式和规律，进而在红石林业局实现了超短波无线综合通信网。该网的组网模式合理、频率点分配得当、采用多信道共用技术、自动拨号、无线网与有线通信网可自动续接。该网具有组呼、群呼、电话会议功能，具有占线强插、阻塞强拆、闪跃通话、自动回呼、自动转移功能和传真、数据传输功能。通话覆盖面达96%以上，通信不受天气条件影响，用于生产指挥、森林防火、防汛、抢险救灾等，稳定可靠，使用方便。建设无线网比常规有线网节约投资270万元，该网运行两年中年均节约线路维护费20万元，木材生产过程中使用该网年均增收节支5万元。已产生较大经济和社会效益。

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