

STUDY ON CHEMICAL COMPONENTS AND RESISTANCE MECHANISM TO PINE WOOD NEMATODE OF MASSON PINE PROVENANCE(III)

— Study on contents variation of neutral terpenoids of resistant provenance of *P. massoniana* after inoculating *Bursaphelenchus xylophilus*

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Abstract: The variation relationships of neutral terpenoids (mainly sesquiterpenoids) were investigated through GC determination of the different resistant provenances (high resistance: H, middle resistance: M and low resistance: L) of *Pinus massoniana* after they were inoculated with *Bursaphelenchus xylophilus* (pinewood nematodes, PWN). The results showed that the inoculation led to increase of some components such as longifolene with the inoculated days in the H and M provenances, but led to decrease of some compounds such as *trans*-caryophyllene in all three provenances. The inoculation of PWN into the H provenance resulted in the decrease followed by the increase of the ratio of contents of longifolene and *trans*-caryophyllene. However, the inoculation did not finally change the resistance of masson pine provenance, and the growth did not affect the resistance, too.

Key words: neutral terpenoids; pinewood nematode (PWN); resistance mechanism; resistant provenance of masson pine; pine wilt

科技简讯

龙脑樟选育及加工利用技术研究通过专家验收

由宋永芳研究员主持、湖南省新晃县林业局共同协作的“龙脑樟选育及加工利用技术研究”课题,于2001年5月28日通过了国家林业局科技司组织的同行专家评审、验收。并认定为一项成果:高龙脑含量的云南樟[*Cinnamomum glanduliferum* (wall.)Ness]选育及加工利用技术。该项目由国家林业局于1996年下达,经过5年多努力,完成了龙脑樟优株选育,龙脑提取和精制工艺的研究,产品质量标准分析检测,毒性及药效初步试验和龙脑樟原料基地规划设计等工作。

天然右旋龙脑,是名贵中药和重要香料,我国长期依赖进口。该研究的宗旨是利用樟树的枝叶提制天然龙脑以代替进口天然龙脑,保护森林资源的可持续发展。

验收组认为该项研究填补了国内用龙脑樟制备右旋龙脑的空白,精制龙脑质量符合进口龙脑标准,其精品纯度达到国内外领先地位,该课题组已全面完成了各项研究任务,课题在实施过程中采用研究、生产和应用单位相结合的形式,为研究成果面向产业化打下了基础,具有良好的应用前景。

(林云露)