

植保技术

节核菌培养液对白肋烟烟碱含量的影响研究

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摘要 将分离得到的4株节核菌(*Arthrobacter* sp.)菌株培养液喷洒在晾制一周的白肋烟植株表面, 晾制结束时, 分部位取烟叶样品作常规化学成分分析和评级鉴定。结果表明: 各菌株有显著降低不同部位烟叶烟碱含量的作用, 烟碱降解率最高达54.22%, 最低达7.12%。各菌株培养液处理后烟叶的可溶性总糖、还原糖含量增加, 而蛋白质、总N含量下降; 施木克值、糖碱比和氮碱比的比值趋于上升。评吸结果: 各菌剂处理评吸综合得分均高于对照, 其中3号、4号和1号菌剂处理的烟叶高出对照2分。

关键词 [节核菌\(*Arthrobacter* sp.\)](#); [白肋烟](#); [烟碱](#); [影响](#)

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Preliminary study on the effect of the *Arthrobacter* sp. bacteria spraying on the nicotine content of burley tobacco

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Abstract

Arthrobacter sp. and other chemical substances in burley tobacco leaves were determined after being treated with 4 bacteria suspension spraying during the growing period, and the results showed that the chemical substances and the smoking quality of the treated leaves were affected in some extent. The *Arthrobacter* sp level on different tobacco stalk positions is significantly affected by all the bacteria strains. The average reduction rate of *Arthrobacter* sp. is over 40% among the treatments ranging from 7.12% to 54.22%. After the treatment, the total sugar and the reducing sugar increased, but the total N and the protein were reduced. The chemical quality of the tobacco leaves and the related smoking quality were improved specified by increased value of Shimuke, the ratio of sugar/nicotine and the ratio of N/nicotine. The smoking test results showed that the total scores of each treatment was all higher than the control. The smoking quality of treatments applied with the bacteria 3#, 4# and 1# increased in terms of the aroma quality and volume, and the irritation strength was reduced, and the scores were 2.0 higher than the control.

Key words [Arthrobacter sp](#) [burley tobacco](#) [effect](#) [nicotine](#)

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