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研究报告

# 嫁接茄子根系分泌物的化感效应

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摘要

采用室内生物测定的方法，研究了不同砧木、不同浓度和不同生育期嫁接茄子根系分泌物的化感效应.结果表明，嫁接茄根系分泌物与自根茄相比，促进了茄子种子的萌发和幼苗生长.各砧木品种嫁接茄根系分泌物的化感效应显著或极显著高于对照，其中发芽率和苗高最高，增加29.1%和37.1%；不同浓度试验结果呈现“低促高抑”的规律，当浓度为0.04 g·ml$^{-1}$ 时发芽率最高，比对照增加50%，当浓度增加到0.24 g·ml$^{-1}$ 时，根长比对照降低了30.3%；在生长后期嫁接茄的根系分泌物对种子萌发的促进作用小于前中期，而自根茄抑制作用增强.因此，生产中使用嫁接技术是缓解由自毒作用引起的连作障碍的有效方法之一.

关键词 化感作用；根系分泌物；茄子；嫁接；自毒作用

分类号



# Allelopathic effects of grafted eggplant root exudates

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**Abstract**

By the methods of bioassay,this paper studied the allelopathic effects of different concentrations root exudates from the eggplants grafted with different stocks and at different growth stages.The results showed that compared with that of own-rooted eggplant,the root exudates from grafted eggplants promoted the seed germination and seedling growth of eggplants,and,in comparing with the control (water),they increased the germination rate and plant height by 29.1% and 37.1%,respectively.The seed germination and root length of eggplants was increased at lower concentrations root exudates,but decreased at higher concentrations.The germination rate was increased up to 50% above control at 0.04 g·ml$^{-1}$,and the inhibition of root length was up to 30.3% at 0.24 g·ml$^{-1}$.The promotion effect of the root exudates from late growth stage grafted eggplants on seed germination was less than that from other growth stage grafted eggplants. Own-rooted eggplant had an intensified inhibitory effect at its late growth stage.Grafting was one of the effective methods for relieving the continuous cropping obstacles caused by autotoxicity.

**Key words** Allelopathy Root exudates Eggplant Graft Autotoxicity

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