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蔬菜

托拉斯假单胞杆菌弱毒菌株诱导平菇抗细菌性褐斑病的研究

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Hypovirulent Strain of *Pseudomonas tolaasii* Induced Systemic Resistance Against Brown Blotch Disease in *Pleurotus ostreatus*

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摘要 为了明确平菇细菌性褐斑病病原菌托拉斯假单胞杆菌（Pseudomonas tolaasii）弱毒菌株JPG250303的诱导抗病作用、弱致病性及诱导抗病作用的遗传稳定性，通过对其诱导抗病性表达、诱导接种浓度及诱导间隔期的研究，明确该弱毒菌株具有较好的诱导抗病效果。利用形态学及分子生物学技术，鉴定出该弱毒菌株为托拉斯假单胞杆菌（P. tolaasii），将弱毒菌株经平菇子实体连续5代培养后均具有弱致病性，说明其弱致病性可以稳定遗传；同时对5代菌株分别进行了诱导抗病活性的验证，5代菌株对平菇细菌性褐斑病诱导抗病效果分别为67.2%、66.3%、69.1%、68.6%和65.0%，说明该弱毒菌株诱导抗病活性也具有稳定性，这一研究为该弱毒菌株作为生防菌株防治平菇细菌性褐斑病的应用提供了理论基础。

关键词： 平菇 托拉斯假单胞杆菌 弱毒菌株 诱导抗病性

Abstract： This study is aimed at defining the induced resistance, hypovirulent pathogenicity and the genetic, induced concentration and interval of induction. Hypovirulent pathogenicity of the strain could be inherited to next five generation stably. The efficiency of induced systemic resistance against brown blotch disease by the five generations was 67.2%, 66.3%, 69.1%, 68.6% and 65.0%, respectively. To summarize, the study provided a theoretical basis for application of the hypovirulent strain as a biocontrol agent to control the *P. ostreatus* brown blotch disease. stability of the hypovirulent strain JPG250303 in *Pleurotus ostreatus*. The strain was identified as *Pseudomonas tolaasii* combining morphology and molecular biological methods. Good induced resistance effect of the hypovirulent strain was proved by studies of induced resistance

Keywords： *Pleurotus ostreatus*, *Pseudomonas tolaasii*, hypovirulent strain, induced resistance

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