

研究报告

## 两个不同抗性黄瓜品种和云南黑籽南瓜根系分泌物对黄瓜枯萎病发生的影响

黄奔立, 许云东, 伍, 焯, 张顺琦, 陈学好

扬州大学农学院, 江苏扬州 225009

收稿日期 2006-4-7 修回日期 2006-12-9 网络版发布日期 接受日期

**摘要** 研究了黄瓜品种津研4号(感枯萎病)、津春4号(抗枯萎病)和云南黑籽南瓜根系分泌物对津研4号黄瓜枯萎病发生的影响及其原因。结果表明:感病品种根系分泌物处理的黄瓜枯萎病发病早,接种后第15天病株率显著高于对照,至第20天时病株率与对照相近;而抗病品种根系分泌物处理的病株率一直显著小于对照。感病品种根系分泌物浇灌的植株株高、鲜质量降低,根系活力下降、电导度(伤害度)增加,而抗病品种和云南黑籽南瓜根系分泌物处理对植株影响较小。感病品种根系分泌物促进了黄瓜枯萎病菌的生长,而抗病品种和云南黑籽南瓜根系分泌物则抑制了病菌生长。

**关键词** [黄瓜](#) [根系分泌物](#) [枯萎病](#) [机理](#)

分类号

## Effects of root exudates from cucumber and squash on *Fusarium wilt* occurrence

HUANG Ben-li, XU Yun-dong, WU Ye, ZHANG Shun-qi, CHEN Xue-hao

Agricultural College, Yangzhou University, Yangzhou 225009, Jiangsu, China

### Abstract

With the root exudates of two cucumber varieties Jinyan 4 (susceptible variety) and Jinchun 4 (resistant variety) and of black seed squash variety as test materials, this paper studied their effects and action mechanisms on the occurrence of *Fusarium wilt* on Jinyan 4. The results showed that the occurrence of *Fusarium wilt* was earlier when treated with the root exudates of Jinyan 4, and the infection rate was significantly higher at 15 days after inoculation, but nearly the same as the control at 20 days after inoculation. On the contrary, the infection rate was significantly lower than the control when treated with the root exudates of Jinchun 4. The plant height and fresh mass of Jinyan 4 treated with its own root exudates were lower than those of the control, and the root vigor decreased but conductance increased. No significant effect was observed in the plant height and fresh mass of Jinyan 4 treated with the root exudates of Jinchun 4 and black seed squash. It could be concluded that the root exudates of susceptible cucumber variety stimulated the growth of *Fusarium oxysporum* pathogen, while those of resistance cucumber variety and black seed squash were in adverse.

**Key words** [cucumber](#) [root exudates](#) [Fusarium wilt](#) [mechanism](#)

DOI:

通讯作者

### 扩展功能

#### 本文信息

- ▶ [Supporting info](#)
- ▶ [PDF\(1238KB\)](#)
- ▶ [\[HTML全文\]\(0KB\)](#)
- ▶ [参考文献](#)

#### 服务与反馈

- ▶ [把本文推荐给朋友](#)
- ▶ [加入我的书架](#)
- ▶ [加入引用管理器](#)
- ▶ [复制索引](#)
- ▶ [Email Alert](#)
- ▶ [文章反馈](#)
- ▶ [浏览反馈信息](#)

#### 相关信息

- ▶ [本刊中 包含“黄瓜”的 相关文章](#)
- ▶ 本文作者相关文章

- [黄奔立](#)
- [许云东](#)
- [伍](#)
- [焯](#)
- [张顺琦](#)
- [陈学好](#)