

热带农业科学

真菌对芒果花序侵染过程的细胞学观察

温寿星

(1福建省农业科学院果树研究所, 福州 350013; 2亚热带作物研究所, 广东湛江 524091; 3西南大学园艺园林学院, 重庆 400716)

摘要:

摘要: 采用荧光显微镜观察法和石蜡切片法对真菌侵染芒果花序的过程进行观察, 结果显示: 不同年份受真菌感染率不同, 感染率与取材年份的气候状况有关; 低温(日均气温10-20℃)条件下, 芒果花蕾受真菌感染率由常温(25-30℃)下的37.80%上升至68.18%; 不同种类的真菌对芒果花序具有协同侵染作用; 真菌分生孢子在花蕾表面及内部空腔萌发, 菌丝体经花瓣分泌组织侵入体内, 沿细胞间隙生长, 在组织内形成分生孢子囊并导致组织病变坏死, 或进入花蕾维管组织(主要是导管)并在维管束中形成分生孢子囊, 成熟后分生孢子沿维管束在组织内传播扩散。

关键词: 真菌; 侵染; 芒果

Cytological Observation on Fungal Invasion in Mango (*Mangifera indica* L.) Inflorescence

(1Pomological Institute, Fujian Academy of Agricultural Sciences, Fuzhou 350013; 2South Subtropical Crops Research Institute, Zhanjiang Guangdong 524091; 3College of Horticulture and Landscape, Southwest University, Chongqing 400716)

Abstract:

Abstract: With paraffin section technology and fluorescence microscope, the process of fungal invasion into mango inflorescence was observed. Results were as follow: Fungal infection rate of different year was different from each other, and was highly correlated to the weather condition while materials were chosen. The infection rate of mango buds by fungus rose from 37.80% of normal condition to 68.18% under low temperature. Some fungal conidiophores germinated and grew in flower lacuna and then invaded into interfloral nectary through interspace among cells to produce sporangium or invaded into vessel to produced sporangium, after which conidiophores spread inside through vascular bundle. While some germinated on calyx surface then invaded inside to cause putrescence. Fungal infection played an important role in flower and fruit drops during early development.

Keywords: Fungus Invasion Mango

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通讯作者: 温寿星

作者简介:

作者Email:

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