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转基因抗虫棉黄萎病田间消长模式研究

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Dynamic Patterns of *Verticillium* Wilt of Transgenic Cotton Cultivars in the Field

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摘要 2008 年和 2009 年利用田间病圃研究了 17 个转基因抗虫棉品种的黄萎病田间消长模式。基于各品种在不同调查时间点的 2 年病情指数进行聚类分析，可将供试品种划分为 4 种类型。分析发现，同一类型中不同品种的黄萎病田间消长模式相似，而不同类型间表现出明显差异。第Ⅰ类品种表现为在调查的前、中、后期病情指数较低，且其病指低于其它 3 类；第Ⅱ类品种在整个调查时期病情指数也较低，但全年有 2 个发病高峰；第Ⅲ类品种在调查前期病指较高，中期病指略有降低，后期病指快速上升，发病高峰期病指较高，其病指在整个调查时期高于第Ⅱ类；第Ⅳ类品种调查前期病指较高，中期病指降低，后期病指最高，全年有 2 个明显的发病高峰，且其病指在 8 月 20 日前 的几个调查时期均显著高于其它 3 种类型。

关键词： 转基因抗虫棉 黄萎病 消长模式

Abstract： The *Verticillium* wilt resistance of 17 transgenic cotton cultivars was identified in the field disease nursery in order to analyze the dynamic patterns of *Verticillium* wilt in 2008 and 2009. According to the disease index of different investigated times of all varieties in two years, the varieties were classified into four types based on clustering analysis. The results showed that the different varieties from the same type had very similar dynamic pattern, however, the varieties from different types presented obvious difference. Type Ⅰ had the lowest disease index at whole stage than that of the other types. Type Ⅱ had two peaks at whole stage and showed higher disease index than that of Type Ⅰ. Type Ⅲ had higher disease index at whole stage than that of Type Ⅱ. Type Ⅳ presented the high disease index at early stage, low disease index at middle stage and the highest disease index at late stage. Type Ⅳ had two apparent peaks and the highest disease index than those of other types before August 20.

Keywords： transgenic cotton *Verticillium* wilt dynamic pattern

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