

研究报告

Bt毒素在转基因棉花与土壤系统中的分布

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收稿日期 2004-10-18 修回日期 2005-2-21 网络版发布日期 接受日期

摘要

研究了转Bt基因棉花与土壤系统中Bt毒素的分布.结果表明,两种转Bt基因棉花地上部(叶片、茎秆)的毒素表达量(103.5~134.1 ng·g⁻¹)显著高于地下部分(根系)(44.7~21.2 ng·g⁻¹),土壤中Bt毒素总量可通过转基因棉花地上部分秸秆的处理得到控制;Bt毒素在转Bt基因棉花根系分泌物中的含量极低,如果控制Bt毒素的其它导入来源,将显著降低转Bt基因作物释放中因Bt毒素导入而引发的对土壤生态系统的扰动.

关键词 [Bt毒素,转基因棉花,土壤,分布](#)

分类号

Bt toxin distribution in transgenic Bt cotton and soil system

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Abstract

This study showed that the amounts of Bt toxin expressed in transgenic Bt cotton leaves and stems (103.5~134.1 ng·g⁻¹) were rather higher than those expressed in transgenic Bt cotton roots (44.7~21.2 ng·g⁻¹), indicating that total amount of soil Bt toxin introduced by transgenic Bt cotton could be decreased through treating its above-ground biomass. In comparing with the amount of Bt toxin expressed in transgenic Bt cotton plant, that expressed in its root exudates was rather lower, showing that the effects of plant Bt toxin on soil ecosystem would be limited if other sources of Bt toxin introduced into soil were controlled.

Key words [Bt toxin](#) [Transgenic cotton](#) [Soil](#) [Distribution](#)

DOI:

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