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摘要: 为阐明大豆对除草剂阿特拉津的耐性机制,利用250 mg·L⁻¹ (田间使用浓度)阿特拉津处理大豆,在处理后不同时间分别测定大豆根系与叶片中过氧化物酶、多酚氧化酶和苯丙氨酸解氨酶活性的变化。结果表明:大豆在接受阿特拉津处理后,3种酶的活性高于未经过阿特拉津处理的大豆。阿特拉津处理后大豆根系的酶活明显高于叶片的活性,而且大豆根系的酶活力变化要早于叶片酶活力的变化。耐性品种3种酶活性远高于敏感性品种。
Abstract: Maize and soybean rotation is very common in north of China. However, the heavy residue of Atrazine, the major corn herbicide is harmful to soybean growth. In order to screen some tolerant varieties and research the mechanism, treated soybean with 250 mg·L⁻¹ Atrazine and determined the activities of peroxidase (POD), polyphenoloxidase (PPO), phenylalanine ammonialyase (PAL) in soybean plants roots and leaves after 0, 24, 48, 72 and 96 h. The results showed that POD, PPO and PAL in treated soybean were higher than control and the activities of enzymes in roots reacted early and higher than those in leaves. The enzyme activities of tolerant varieties were higher than sensitive varieties.

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