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腐霉菌侵染条件下大豆下胚轴中PAL和POD活性的变化

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摘要: 以对腐霉菌抗性不同的6个大豆品种为材料, 测定接种腐霉菌 (Pythium aphanidematum) 后下胚轴中的PAL和POD活性, 分析大豆与腐霉菌互作过程中, 不同抗性品种下胚轴中PAL和POD的活性变化规律。结果表明: 接种腐霉菌后, 抗病品种下胚轴的PAL活性呈先升高后降低, 再次升高后降低的变化趋势; 感病品种的PAL活性呈先升高后降低的趋势; 不同抗感性品种接种腐霉菌后下胚轴的POD活性均不断升高; 抗病品种POD活性增加速度、PAL和POD活性峰值均高于感病品种。

Abstract: The PAL and POD activities of soybean hypocotyls are closely correlated with soybean disease resistance. In this study, six soybean varieties with different resistance to Pythium were inoculated with Pythium aphanidematum and determined the PAL and POD activities of hypocotyls. The result showed that with the extension of inoculating time, PAL activities of resistant cultivar increased firstly, and then decreased, after that increased and finally decreased; PAL activities of susceptible varieties increased firstly and then decreased. The POD activities of resistant and susceptible soybeans increased gradually, but the increasing speed and the maximum of PAL and POD activities of resistant cultivars were higher than those of susceptible cultivars.

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