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非致病性双核丝核菌BNR-1对小麦防御酶系的影响

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摘要:

用非致病性双核丝核菌(Nonpathogenic Binucleate *Rhizoctonia* species)菌株BNR-1接种处理小麦植株根际,测定一定生长期小麦防御酶活性变化,结果表明经过BNR-1处理的小麦样品,其防御酶过氧化物酶(POD)、多酚氧化酶(PPO)、苯丙氨酸转氨酶(PAL)、几丁质酶和β-1,3-葡聚糖酶活性明显提高,而且经过BNR-1处理的小麦样品纹枯病(wheat sharp eye spot)发病率明显降低。

关键词: 非致病性双核丝核菌 过氧化物酶 多酚氧化酶 苯丙氨酸转氨酶 几丁质酶 β -1 3-葡聚糖酶

Impact of nonpathogenic binucleate *Rhizoctonia* spp. BNR-1 on defense enzyme activities of wheat

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Abstract:

We employed the strain, BNR-1, of Nonpathogenic Binucleate *Rhizoctonia* species to inoculate the roots of wheat and to determine the change of wheat defense enzyme activity in a certain vegetative period. Results show that the activities of peroxidase(POD), polyphenoloxidase(PPO), phenylalanine ammonialyase(PAL), chitinase and β-1,3-glucanase of wheat samples are significantly enhanced after they are processed by BNR-1. Moreover, their sharp eyespot incidence is dramatically decreased after they are processed by BNR-1.

Keywords: Nonpathogenic Binucleate *Rhizoctonia* species peroxidase polyphenoloxidase phenylalanine ammonialyase chitinase β-1,3-glucanase

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