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Fungicide tolerance of *Trichoderma asperelloides* and *T. harzianum strains*

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ABSTRACT
Tolerance in isolations of Trichoderma was developed by exposing two strains of T. harzianum and three of T. asperelloides to increasing concentrations of chemical fungicides. These isolation of Trichoderma were exposed to three fungicides: Captan, Thiabendazol and the mixture Captan-Carboxin. Some selected lines of these strains reached tolerance to Captan and partial tolerance to the mixture Captan-Carboxin. The biological and genetic changes in these tolerant lines were monitored by determining the relative growth rate of the fungus, inhibition of Fusarium and by analyzing the genomic changes through UP-PCR. The results show that the tolerance to fungicides can be developed without affecting the parameters of biological activity in these lines of Trichoderma (growth and parasitism against Fusarium). Chemical tolerance to the fungicide was verified by means of changes at the DNA level (UP-PCR), mainly in the lines tolerant to Captan. This suggests that Trichoderma survives in environments with remnants of fungicide molecules.

KEYWORDS
Trichoderma; Mutation; Chemical Fungicide; Biological Control; Tolerance

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