

The Effect of *Trichoderma harzianum* on Honey Bee Survival

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INTRODUCTION

Botrytis cinerea is a fungal pest of berry fruit that causes gray mold or fruit rot. Infection usually occurs in the flower, remains quiescent until the fruit matures, and then develops abundantly, causing fruit decay. One biological control agent of *B. cinerea* that is commercial available is the fungal antagonist, *Trichoderma harzianum*.

Over the last four years we have sprayed *T. harzianum* and used bumble bees and honey bees to deliver a powdered formulation of *T. harzianum* to strawberry flowers for *Botrytis* fruit rot control. Results to date for both sprayed and bee delivered *T. harzianum* have shown good *Botrytis* control. Although *T. harzianum* is non toxic to birds and mammals and observational data from our trials indicated that it does not affect honey bees, experimental data must be generated to determine the effect of *T. harzianum* on honey bee health in order to facilitate the registration of this biocontrol agent. Therefore, the objective of this experiment was to determine the effect of *T. harzianum* on honey bee hive health.

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