

***Trichoderma harzianum* Rifai Strain T-39 (119200) Fact Sheet**

Summary

Trichoderma harzianum Rifai Strain T-39 is a naturally occurring fungus that is used to protect crops from the harmful gray mold, *Botrytis cinerea*. The active ingredient is not expected to cause disease or adverse health effects to humans and is not likely to harm the environment. It can be applied outdoors and in greenhouses to most food crops except those below.

I. Description of the Active Ingredient

Trichoderma harzianum Rifai Strain T-39 is a naturally occurring fungus found on some plants and in the soil worldwide. As a pesticide, it displaces the disease-causing gray mold from plants if it is applied early in the growing season.

II. Use Sites, Target Pests, and Application Methods

Use Sites: The fungus can be applied, using the application methods described below, to most food crops grown in greenhouses, shade houses, or in agricultural fields,. It is not clear whether this strain of the fungus has adverse effects on certain crops as other members of the *Trichoderma* fungal species do. Therefore, products containing this active ingredient **must not be used** on apples (fruit), barley, chickpea, corn, cotton, kiwi, lemon, mushrooms, oats, pechay (bok choy), rice, soybean, sugarcane, tobacco, tomatoes, and wheat, until the registrant provides more information.

Target Pests: Gray Mold or *Botrytis cinerea*, a fungus which causes diseases on plants.

Application Methods: Products containing this active ingredient are to be sprayed on crops using ground equipment only. It works best if all parts of the crop receive uniform spray coverage, and if spraying occurs early in the season.

III. Assessing Risks to Human Health

There are no expected health risks from use of products containing this active ingredient if label directions are followed. Laboratory data indicate that no adverse effects are expected when people eat food treated with this T-39 strain of the *Trichoderma* fungus. However, there is a potential for eye and skin irritation and adverse acute lung effects for workers who mix, load and apply the pesticide products, or who enter a treated field within 12

hours of spraying. The lung effects do not appear to be due to the fungus itself, but may be caused by the inert substance present in the single registered product. EPA requires that workers wear goggles, long sleeved shirts, long pants, shoes, socks, and respirators to protect their eyes, skin, and lungs.

IV. Assessing Risks to the Environment

No harmful effects to the environment are expected if the pesticide is used as labeled. Tests show that the fungus is not toxic to mammals or birds. The Agency has required more detailed analyses to show that the pesticide does not adversely affect the honey bee, aquatic invertebrates and certain crops. Also, in order to understand the effect on non-target organisms in the beetle family, the Agency is requiring tests on ladybugs as an indicator species. More data are required if the registrant requests use of the active ingredient on the crops which are excluded from the current label. In addition, data are required to fully explain the effects of products containing *Trichoderma harzianum* strain T-39 on fish, if the registrant wishes to register aerial applications and treatment of aquatic crops.

V. Regulatory Information

At the date of publication, there was one pesticide product containing *Trichoderma harzianum* strain T-39 registered. The use of this fungus is allowed until 2001 while the registrant provides the required ecological effects data. Appropriate action will be taken regarding this registration after EPA analyzes the new data which the registrant has agreed to submit.

VI. Producer Information

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VII. Additional Contact Information

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