

Verticillium Isolate WCS850 (081305) Fact sheet

Summary

Verticillium Isolate WCS850 is a fungus that is injected into the trunks of elm trees in urban landscapes to manage Dutch Elm disease. This Isolate seems to act by stimulating the tree's natural defenses so that the tree becomes resistant to the organism that causes Dutch Elm disease. Verticillium Isolate WCS850 does not harm treated trees, and is undetectable several weeks to months after injection. Tests show that the Isolate is not toxic or pathogenic to humans. The product is intended for injection into healthy elm trees which show no signs of Dutch elm disease. The fungal product must be applied yearly to prevent Dutch Elm disease. Because this fungal product is applied via a closed system, does not persist, and is not toxic, no harm is expected to humans, animals, or the environment when applicators follow label instructions.

I. Description of the Active Ingredient

Verticillium Isolate WCS850 does not infect plants. This Isolate was recovered from a diseased potato plant in the Netherlands, where it has been used to protect trees against Dutch Elm disease since 1992. This Isolate does not produce structures that allow it to reproduce or survive harsh environmental conditions; characteristics that help explain its inability to infect plants. The fungus works by inducing the elm tree's natural disease resistance mechanisms to protect the elm tree against Dutch Elm disease. *Verticillium* Isolate WCS850 can be detected only in the portion of the tree where the injection was made, and it is relatively short-lived.

II. Use Sites, Target Pests, and Application Methods

- **Use Sites:** Elm trees in urban landscapes
- **Target Pests:** *Ophiostoma novo-ulmi*, the organism that causes Dutch Elm disease
- **Application Methods:** Applied annually in the spring by professional applicators, using a closed system gouge gun to inject a few drops of the liquid product (fungal suspension) into the vascular system of elm tree trunk at waist height. This application method applies to the only product registered for this use as of November 2005, "Dutch Trig®."

III. Assessing Risks to Human Health

No harmful health effects to humans are expected from use of Verticillium Isolate WCS850 as a pesticide active ingredient. No evidence of toxicity or pathogenicity was found in laboratory animal studies. Exposure to workers is minimal to non-existent because the product is applied only by trained applicators using a closed system.

Whether or not a substance poses a risk to humans or other organisms depends on two factors: how toxic the substance is, and how much of it an organism is exposed to. Therefore, the EPA considers toxicity data and exposure data in determining whether to approve a pesticide for use.

IV. Assessing Risks to the Environment

No adverse environmental effects are expected when products containing *Verticillium* Isolate WCS850 are used according to label instructions. Applications to various other tree species showed no adverse effects, but only American elms can be treated with this product. Because of the closed application system and the non-mobility of the active ingredient once applied to the vascular tissue, no non-target exposures or adverse effects are expected, including to endangered or threatened species

V. Regulatory Information

April 1999-June 2005

EPA grants three EUPs (Experimental Use Permits) to the company so it can test application methods in various states.

October 19, 2005

EPA registers the first pesticide product containing *Verticillium* Isolate WCS850 as the active ingredient. "DUTCH TRIG®" EPA Registration # 71927-1

VI. Registrant Information

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VII. Additional Contact Information

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