

***Alternaria destruens* Strain 059 (028301) Fact sheet**

Summary

Alternaria destruens Strain 059 is a well characterized, naturally occurring fungus which is parasitic to several *Cuscuta* species, including dodder, swamp dodder, largeseed dodder, field dodder, and smallseed dodder. The active ingredient has been formulated into two herbicidal end-use products, Smolder G (a soil applied granular) and Smolder WP (a spray formulation). Based on available information, *A. destruens* Strain 059 appears to have no adverse effects on humans or the environment and is not known to infect plants other than *Cuscuta* spp.

I. Description of the Active Ingredient

Alternaria destruens Strain 059 was initially isolated from swamp dodder (*Cuscuta gronovii*) in 1986 and is indigenous to the United States. This fungal pathogen acts by infecting and suppressing dodder at early and late stages of growth. To function effectively, the active ingredient requires a moist environment and adequate temperature (4°C to 35°C) during the infection period, which can last for three to four hours. Under dry conditions, the onset of infection may be delayed until increased moisture is available. *Alternaria destruens* Strain 059 can feed on live or dead dodder plant tissue and demonstrates poor survival in the absence of this host.

II. Use Sites, Target Pests, and Application Methods

- Use Sites: Fruit and vegetable crops, and ornamentals.

- Target Pests: *Cuscuta* spp., known as dodder, swamp dodder, largeseed dodder, smallseed dodder, and field dodder.

- Application Methods: Smolder G: Granules are applied to moist soil at a rate of 50 pounds (1 bag) per acre at, or immediately prior to, dodder emergence.

- Smolder WP: This liquid sprayable product should be applied when dodder vines are beginning to reach the top of the crop canopy.

III. Assessing Risks to Human Health

No harmful health effects to humans are expected from use of *Alternaria destruens* Strain 059. Appropriate tests found no evidence that the fungus is toxic to humans and other mammals. No toxicological or pathogenic effects of *A. destruens* in mammals have been reported in available public literature or in the submitted data. In addition, certain biological characteristics of *A. destruens*, which include its moisture and temperature requirements during infection, and its dependence on *Cuscuta spp.* as hosts, are further indications that this microbial pest control agent would not be pathogenic to mammals.

IV. Assessing Risks to the Environment

Available studies show that no adverse environmental effects are expected when products containing *Alternaria destruens* Strain 059 are used in accordance with label instructions. *Alternaria destruens* has not been reported in public literature to infect any organism other than *Cuscuta spp.* In addition, exposure of birds, fish, aquatic invertebrates, and honey bees to Smolder G and Smolder WP is anticipated to be minimal because the products are applied to soil and foliage.

V. Regulatory Information

Alternaria destruens Strain 059 was registered (licensed for sale) on May 5, 2005.

Two products, Smolder G and Smolder WP , were registered at that time (EPA Reg. Nos. 34704-824 and 34704-825).

VI. Registrant Information

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VII. Additional Contact Information

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