Powdery mildew is a serious disease of melons caused by either *Sphaerotheca fuliginea* or *Erysiphe cichoracearum*.

Most of the powdery mildew in Southern California and Arizona is caused by *S. fuliginea*. Moist conditions, warm weather, high humidity (50 to 90%) and vigorous plant growth all promote the development of this disease. Powdery mildew overwinters on weeds and its spores travel great distances on air currents to infect new crops. In the coastal production area, powdery mildew may strike melons at any stages of development. In the San Joaquin Valley, Sacramento Valley and desert production areas, infections usually occur in the fall. Powdery mildew spreads quickly, so a good scouting program is essential for effective management of this disease. Fungicide sprays should be started as soon as the first disease symptoms are detected. Early symptoms are small yellow spots on the leaves, stems or petioles. As the disease progresses, spots enlarge and turn white, mycelium grows over the leaf surface and then begins to produce spores, giving the leaves a characteristic powdery appearance.

**About Trilogy®**

Trilogy is a natural pesticide containing clarified seed oil from the Indian neem tree. Trilogy works as both a preventive and curative fungicide. Sprayed before infection, Trilogy acts as a shield on plant surfaces preventing spores from germinating.

Trilogy also kills mycelium present on the surface of the leaf and can act as a curative fungicide if applied in the early stages of infection. Trilogy is a certified National Organic Program (NOP) product and is listed by the Organic Materials Review Institute (OMRI) for use in organic crop protection. It can be used to control powdery mildew in both organic and conventionally grown melons. As an additional benefit, Trilogy provides control of spider mites and suppression of soft-bodied insects. Since Trilogy is primarily a contact preventive fungicide, best control of *S. fuliginea* may be achieved by tank mixing with a complimentary fungicide, such as Topsin® M (thiophanate-methyl).

Always read and carefully follow label directions.
### Control of Powdery Mildew on Cantaloupe with Fungicides (2000)

**Investigator:** Dr. Michael Matheron, University of Arizona  
**Location:** Yuma, AZ

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### Production Area Applications

- **Coastal:** Timing: At first sign of mildew symptoms. There is a constant threat of infection. Tank mix Trilogy at 1% v:v plus Topsin M at 0.5 lb./acre.
- **San Joaquin Valley:** Timing: At first sign of mildew symptoms. Powdery mildew is most common in Fall.
- **Sacramento Valley:**
- **Desert:**

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**Four weekly applications by tractor-mounted boom sprayer at 50 GBA. Powdery mildew rated on 0 to 5 scale of increasing severity.**

- Trilogy is a registered trademark of Certis USA. Topsin and Microthiol are registered trademarks of United Phosphorus, Inc. Flint is a registered trademark of Bayer. Quadris is a registered trademark of a Syngenta Group Company. Latron is a registered trademark of Dow AgroSciences.