



For Use to Control Douglary Mildow in California

For Use to Control Powdery Mildew in California Squash and Pumpkin Crops

Powdery mildew is a serious disease of squash and pumpkins caused by *Erysiphe cichoracearum*. 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 squash and pumpkins at any stage of development. In the San Joaquin Valley, Sacramento Valley, and desert production areas infections usually occur in the fall.



Moist conditions, warm weather, high humidity (50-90%) and vigorous plant growth all promote the development of this disease.

Early symptoms of powdery mildew on squash and pumpkin 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.

Uncontrolled powdery mildew can coat the upper and lower leaf surfaces with mycelium. The result can be a complete loss of foliage. Vines with little or no foliage produce fewer and smaller fruit. Pumpkins and squash grown without the shade provided by the leaves become sunburned and discolored. 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.

## About Trilogy®

Trilogy is a natural pesticide containing clarified seed oil from the Indian neem tree. It 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 meets National Organic Program (NOP) standards, and is Organic Materials Review Institute (OMRI) listed. It can therefore be used to control powdery mildew in both organic and conventionally grown squash and pumpkin crops. As an additional benefit, Trilogy provides suppression of soft-bodied insects. Since Trilogy is primarily a contactpreventive fungicide, best control of *Erysiphe cichoracearum* may be achieved by tank mixing with a complimentary fungicide such as Topsin<sup>®</sup> M (thiophanate-methyl).

Always read and carefully follow label directions.



Production Area	Application Timing and Comments	Recommended Use Rate
Coastal	Timing: At first sign of mildew symptoms. There is 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		



All applications were made with a backpack sprayer delivering 135 gpa.

The Kangreen<sup>®</sup>, Kangreen<sup>®</sup>, Kangreen<sup>®</sup>, Runy<sup>®</sup>, Quadris<sup>®</sup>, and Rany<sup>®</sup> treatments were applied every 7 days.

Columns of the same color bearing the same letter are not significantly different from each other (p > 0.05)

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