

## Prescription Downy Mildew Solution



### Conditions Favorable for Downy Mildews

**Downy mildews** can become active with cool to warm (not hot) temperatures, wet conditions and high humidity. Six continuous hours of wet leaves will provide an excellent environment for downy mildew to become established in a crop. Downy mildews are in the same pathogen class as Pythium and Phytophthora (water molds). Symptoms are not always easy to recognize and may appear as other plant problems. There may be microscopic sporangia (spore sacs) on the bottom of the leaf with a darker blotch on the upper surface. Some downy mildews are more aggressive than others. The fungus grows within the plant tissue and not on the surface and symptoms may not appear until conditions are perfect for spore formation, when they emerge on the underside of the leaf. On some plants, symptoms include distortion, stunting and curling of new leaves that appears much like damage from aphids.



*Downy Mildew on Coleus  
Dr. Ann Chase*



*Downy Mildew on Snapdragon*



*Sporulation on underside of leaf*

## Conditions favorable for Downy Mildews

To control downy mildews it is important to irrigate early in the day and have good air circulation to avoid wet leaves for long periods, especially overnight. Sometimes these best efforts might not be enough to avoid conditions favoring a downy mildew outbreak.

Control is difficult and most fungicides only offer protection and not eradication. When conditions are favorable for downy mildew it is very important to use a fungicide rotation program to manage these diseases as part of a fungicide resistance management program. Treatments under favorable conditions are generally applied on 7 day intervals.

Application	PDSx™ Product (s)	Chemical Class	MOA Group	Residual	REI
1	FenStop™ (7 – 14 oz/100 gal)	Imidazolinone	11	7 days	12
2	Aliette® 50 WDG (2.5 lbs/100 gal)	Ethyl Phosphonates	33	7 days	12
3	Compass™ O (1-2 oz/100 gal)	Strobilurins	11	7 days	12
4	Stature® DM (6.4- 12.8 oz/100 gal)	Cinnamic Acid Amides	40	7 days	12
Alternate	Mancozeb (can be alternated with or apply with products in this Prescription.)	Dithiocarbamates	M3	7 days	<b>24</b>

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