

Downy Mildew Control Options- Rick Yates, GGSPRO Technical Services
Manager rev 4.27.11

Downy Mildew is a particularly difficult disease to control. The first line of defense is to bag and dispose of heavily infected material off-site. The spores from dumped material can blow back into production facilities to re-infest the crops. When possible, modify the environment to avoid cool temperatures and persistent leaf wetting that favor sporulation. Spray weekly while scouting and removing infected plant material as it becomes symptomatic. Spraying can stop when no new symptoms appear for 2 weeks.



Preventative foliar sprays- the following products are more effective as preventative applications. Remember to rotate to different modes of action (MOA).

Cease- (EPA Reg. 69592-19-68539)
Active Ingredient: *Bacillus subtilis* QST 713 strain

Mycofungicide foliar spray applied at 1.25 oz per gallon or 1 gallon per 100 gallons.

Preventative control effective for about 7 days. Good plant safety including open blooms and no visible residue. Tank mix with Milstop for best results. Labeled for several edible crops. 0 day PHI. 4 hr REI. MOA NC. OMRI listed.

Compass WDG - (EPA Reg. # 432-1371-59807)

Active Ingredient: Trifloxystrobin

1 teaspoon per 2.5 gallon, (4 ounces per 100 gallons), safe on most open blooms, slight visible residue. Long residual preventative properties. Do not use with CapSil or other organosilicone surfactants. 12 hour REI. MOA 11. Restricted use pesticide in NY.

Fenstop- (EPA Reg #432-1389-59807)

Active Ingredient: Fenamidone

7-14 oz per 100 gallons, (1/2-3/4 tsp per gallon) 28 day re-application intervals. Labeled for ornamentals in greenhouses only. 12 hr REI. MOA 11. Not registered in NY.

Disarm-O- (EPA Reg #66330-64-59807)

Active ingredient: Fluoxastrobin

1/16-1/4 teaspoons per gallon, (1-4 ozs per 100 gallons). 12 hr REI, MOA 11 Not registered in NY as of 3.11. Do not use with Capsil.

Heritage WDG - (EPA Reg. # 100-1093)

Active ingredient: Azoxystrobin

1 teas per 2.5 gallons, (4 ounces per 100 gallons), as a foliar spray. Most effective as a protectant. No visible residue and safe on most open blooms. Do not use with CapSil or other silicone containing surfactants. 4 hr REI. MOA 11. Restricted use pesticide in VT. Cannot be used through ultra low volume applicators.

Pageant (EPA Reg. # 7969-251)

Active Ingredient: Pyraclostrobin and Boscalid

Foliar spray at a rate of 1 to 1.5 tsp per gallon or 12-18 oz per 100 gallons for ornamental plants grown in greenhouses, interiorscapes, nurseries and landscapes. Do not use in conjunction with organo-silicon surfactants such as CapSil. Good plant safety. Do not apply to wintercreeper, nine-bark. Flower spotting has occurred on impatiens and petunias. 12 hr REI. MOA11 & 7. Restricted use pesticide in NY.

Protect DF (EPA Reg # 1001-77)

Active Ingredient: Mancozeb

1 tablespoon per gallon or 1.5 lbs per 100 gallons, leaves a visible residue but is safe on most open blooms. Preferred use is on outdoor perennial production or early in the season on greenhouse crops when residue is not an issue. Most effective as a protectant. Never use on marigolds or geraniums due to manganese toxicity. Certain vegetable transplants added to the label. 24 hr REI. MOA M3.

Eradication sprays- These products can be used with Downy mildew present. Remember to rotate to different modes of action (MOA).



Adorn - (EPA Reg. # 59639-141)

Active ingredient: Fluopicolide

Foliar spray at 1/8 to 1/4 teas per gal or 2-4 ozs per 100 gals. The label requires that another fungicide labeled for the same disease be tank mixed with Adorn for all applications. Do not use on poinsettias. 12 hr REI. MOA 43.

Aliette 80% WDG - (EPA Reg. # 432-890)

Active Ingredient: Aluminum Tris (Fosetyl-Al)

Foliar Spray at 2.5-5 lbs per 100 gallons. Do not exceed 1 application per 30 days. 12 hr REI. MOA 33.

Alude – (EPA Reg # 71962-1-1001)

Active Ingredient: Mono- and di-potassium salts of Phosphorous Acid

Foliar spray at 2-4 tsps per gallon (1-2 qts per 100 gallons) Excellent plant safety, no visible residue, trial on open blooms before use. Certain vegetable transplants added to the label. 4 hr REI. MOA 33. Restricted use pesticide in NY.

Fosphite- (EPA Reg# 68573-2)

Active Ingredient: Mono- and di-potassium salts of Phosphorous Acid

Foliar spray rate: 2-4 tsps per gal or 1-2 qts per 100 gals. Do not apply less than 20 days before or after a copper fungicide treatment to avoid copper toxicity. Many edible crops on the label. 4 hr REI. MOA 25.

Milstop - (EPA Reg. # 70870-1-68539)

Active Ingredient: Potassium bicarbonate

1.5 tsp to 3.5 teaspoons per gallon, or 1.25-3 lbs per 100 gallons as a foliar spray. Fast acting product that is labeled for ornamentals and many vegetable crops. Formulated with a surfactant so do not add another. Exempt from food tolerances. Leaves some residue. Trial on open blooms, damage on hydrangea and pansy blooms has been reported. Best tank mixed with Cease. 0 day PHI. 1 hr REI. MOA NC. OMRI listed.

Stature DM- (EPA Reg # 241-419)

Active ingredient: Dimethomorph

Applied as a foliar spray. Greenhouse grown herbaceous annuals and perennials use 1 to 4 tsp per gallon or 3.2 to 12.8 oz per 100 gallons. Outdoor container grown herbaceous perennials and woody ornamentals use 6.4 to 25.6 oz per 100 gallons. 12 hr REI. MOA 40.

Stature SC- (EPA Reg # 241-428)

Active ingredient: Dimethomorph

A locally systemic fungicide for greenhouse and outdoor grown ornamentals. Foliar spray rates: 1/3-3/4 teas/gal or 6.12-12.25 ozs per 100 gals. 12 hr REI. MOA 40.

Subdue Maxx ME (Micro Emulsion) - (EPA Reg. # 100-796)

Active Ingredient: Mefenoxam

Foliar spray: ¼ to ½ tsp per 10 gallons or 0.5-1 oz per 100 gallons. Must tank mix with a non-MOA4 downy mildew fungicide and then rotate to a non-MOA4 downy mildew fungicide for the next application. Drench application: 1 oz per 100 gallons, only 1 drench application per crop is allowed. REI 48 hr for foliar sprays, 0 hr REI for drench applications if conditions on the label are met. MOA4.