

## Controlling Powdery Mildew on Dogwood

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(Revised 5-2002)

Powdery Mildew usually attacks dogwood from mid to late May until frost in Tennessee. Banner MAXX, Rubigan, and Eagle have provided better control over previously recommended fungicides. These are systemic fungicides, as are Bayleton and Cleary's.

We are recommending that you spray at least 6 hours prior to a rain. We are also recommending that you spray prior to a rain, rather than after the rain, to protect foliage from spores being scattered by the splattering effect of rain drops impacting foliage.

Powdery mildew produces thousands of spores per square inch on a dogwood leaf. Spores break off of small stalks and are wind-blown to other trees. New growth must be protected with sprays every 2 weeks (frequency can vary with the fungicide selected and rate).

We observed up to a 50 percent increase in caliper and height where fungicides were sprayed every 2 weeks, May 28--August 19 in 1998. Fungicides also prevented leaf scorch that was observed on the unsprayed control plants.

Banner, Bayleton and Eagle are very effective, but should not be sprayed over and over or at high rates as stunting and resistance can result. Rotate between mode of action groups (instead of chemical classes). Banner, Bayleton, Strike and Eagle are all 3 mode of action (triazoles). Cleary's is a 1 mode of action (benzimidazole). Daconil is a M5 mode of action (an aromatic organic). Rubigan is a 3 mode of action (pyrimidine).

Their price per container may seem high; but they are concentrated. Compare cost per spray tank, not pesticide container. Follow label directions.

A good quality spreader should be used if recommended by the label. The fungicides above are also effective on Dogwood Anthracnose (*Discula*) and Spot Anthracnose, except Rubigan.

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Banner MAXX and Rubigan AS are mixed 8 fluid ounces per 100 gallons; 0.5 teaspoon (or 2.4 cc or ml) per gallon; or 1.5 teaspoons per 3 gallons. Eagle WP is mixed 4 ounces per 100 gallons. It comes in water soluble packets and should not be opened for backpacks or hand sprayers. A liquid formulation would be easier.

Others are listed for your convenience: Bayleton 25WP is mixed 2-4 ounces per 100 gallons or 1/8 teaspoon per gallon. Daconil 2787 WDG (Water Dispersible Granule) is mixed 1 1/4 pounds per 100 gallons or 2 teaspoons per gallon. Daconil 2787 4.17 F (Flowable) is mixed 32 fluid ounces per 100 gallons or 2 teaspoons per gallon.

Cleary's 3336F is mixed 10-20 fl oz per 100 gallons or 3/4 -- 1 1/4 teaspoon per gallon. Zyban 75WP is mixed 1 1/2 pounds per 100 gallons or 2.5 teaspoons per gallon. Use lower rates as preventative and the higher rate after the disease is present. Spray every 7 days when the disease is severe (frequency can vary with the fungicide selected and rate). The Daconil label recommends no surfactant.

Labels are changed periodically. My rates could be incorrect. Follow the label. Scales are required that will weigh only a few ounces accurately for the dry formulations. Excellent coverage of the foliage is required.

It is also recommended that container dogwoods not be watered overhead to avoid Dogwood Anthracnose and lessen the severity of Powdery Mildew. A drip system using a spray stake in each pot will keep the foliage dry. Watering overhead at 5am would be the best time of day until the conversion to drip can be made.

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