



earth-wise guide to

Powdery Mildew



description

White powdery fungal growth on the leaf surface; does not require moist leaves to spread, but is particularly active in the spring and fall during cool, humid conditions. Spreads rapidly and can produce spores within 72 hours of infection

infestation

- Can cause leaves, buds and twigs to be distorted and dwarfed
- New growth particularly susceptible
- Powdery mildew seldom causes permanent damage to plants

attacks

- Crape Myrtle
- Squash
- Phlox
- Roses
- Many species of plants under appropriate conditions

identify before you buy
Need help diagnosing a plant problem? Call the Texas Agrilife Extension @ 854-9600 and ask for the Master Gardener desk or email them at travismg@ag.tamu.edu

Least Toxic Solutions

- Avoid excess fertilizer
- Choose mildew-resistant plant varieties (see Crape Myrtle varieties below)
- Allow space for good air circulation when planting
- Remove a plant that repeatedly contracts powdery mildew
- Avoid severe pruning – it stimulates new growth which is more susceptible to infection
- Remove infected leaves from plant and off the ground



choose disease resistant roses such as 'Belinda's Dream'

If You Must Use a Fungicide...

- Avoid applying the more toxic fungicides. Manage the disease with low toxicity products containing potassium bicarbonate or neem oil
- Apply the fungicide at the first sign of disease to help prevent outbreak
- Mix according to directions and apply only recommended dosage
- Test fungicide on a small area before treating the whole plant - some products damage plant foliage
- Avoid overuse of chemicals
- Never use systemic fungicides on plants that you intend to eat

Disease Resistant Crape Myrtle varieties:

- | | | |
|-----------------------|--------------|----------------|
| • Apalachee | • Fantasy | • Tightwad Red |
| • Biloxi | • Lipan | • Tonto |
| • Basham's Party Pink | • Miami | • Townhouse |
| • Caddo | • Natchez | • Tuscarora |
| • Chickasaw | • Osage | • Tuskegee |
| • Choctaw | • Pecos | • Wichita |
| | • Red Rocket | |

Check www.growgreen.org for more varieties

product toxicity comparisons

Evaluation of active ingredients only; does not include toxicity information on inert or "other" ingredients.

Toxicity/Threat:

○ low ◐ low to moderate ◑ high ● highest NA not applicable
 ? unknown toxicity 🌍 earth-wise

Hazards:



note	Product Name	active ingredient(s) / concentrations	human toxicity		aquatic life	birds, bees, pets	soil mobility	environmental persistence
			acute	chronic				
🌍	Monterey E-Rase™	Jojoba oil 97.50%	○	?	?	?	?	?
🌍	Serenade® Disease Control	Bacillus subtilis 1.34%	○	○	○	○	○	○
🌍	Safer® Garden Fungicide	Sulfur 12%	○	?	○	○	○	N/A
🌍	Garden-Ville® Potassium Bicarbonate	Potassium bicarbonate	◐	○	○	○	?	?
🌍	Concern® Copper Soap Fungicide®	Copper octonate 0.08%	◐	○	◐	○	○	○
🌍	Safer® 3 in 1 Spray	Potassium salt of fatty acid .75% Sulfur .40%	◐	○	◐	○	○	○
most toxic	Green Light® Neem Concentrate	Extract of Neem Oil 70%	◐	?	◐	●	○	○
	Garden Safe® Fungicide 3-in-1 Ready-to-Use	Extract of Neem Oil 0.9%	◐	?	◐	●	○	○
	Bayer Advanced™ Disease Control for Roses, Flowers & Shrubs Concentrate	Tebuconazole 2.9%	◐	○	◐	○	◐	◐
	Fertilome® Liquid Systemic Fungicide	Propiconazole 1.55%	◐	◐	◐	●	◐	◐
	Fertilome® Halt Systemic Rose, Flower, Lawn & Ornamentals Fungicide	Acephate 4%, Triforine 3.25%	○	◐	◐	●	◐	○
	Bonide® Garden Dust	Copper 7% Rotenone 0.75% Other cube resins 1.5%	◐	○	◐	●	◐	○
	Actinovate® SP	Streptomyces lydicus 0.037%	◐	?	◐	○	●	◐
	Green Light® Neem II Ready-to-Use	Pyrethrin .02% PBO .20% Extract of Neem Oil 0.90%	◐	●	◐	●	○	○
	Ortho® Orthenex® Garden Insect & Disease Control Concentrate	3-thioallphanate 50%, Fenbutatin oxide 0.75%	◐	◐	◐	●	◐	◐
	GardenTech® Sevin® Daconil® Ready-to-Use	Chlorothalonil 0.087%	◐	●	◐	○	◐	◐/●
	Spectracide Immunox® Plus Insect & Disease Control	Myclobutanil 0.78% Permethrin 1.25%	◐	◐	◐	●	◐	◐/●
	Bayer Advanced™ 3 in 1 Insect, Disease & Mite Control	Tebuconazole 0.65% Imidaproclid 0.47% Tau-fulvalinate 0.61%	◐	◐	◐	●	◐	◐

The City of Austin and the Texas AgriLife Extension provide this information as a comparative reference only. Listing of a specific product trade name does not constitute an endorsement of its use. Many other pesticides and pesticide products, other than those listed in these tables are available and may be suitable for use.

Products rated by Grady J. Glenn, Ph.D., B.C.E., of the Pesticide Safety Education Program, Texas AgriLife Extension Service who can be reached for questions at (979) 862-1035. The rating system was developed by Philip Dickey of the Washington Toxics Coalition.

why grow green?

The Grow Green program is based on Integrated Pest Management (IPM) principles that encourage the LEAST TOXIC approach to pesticide and fertilizer use. The goal is to reduce the amount of landscape chemicals that degrade water quality when they run off into waterways or leach into our groundwater.

Grow Green is a partnership between the City of Austin Watershed Protection Department and Texas AgriLife Extension Service. Call 974-2550 or 854-9600 for more information or visit our website at

www.growgreen.org

www.growgreen.org



974-2550



Texas A&M System