



Greenhouse Pest Message, June 23, 2022

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Everyone is busy planting mums and cleaning up from the busy spring season. Unrooted poinsettia cuttings are also arriving. If you would like me to scout or walk thru your poinsettia crops, this fall, feel free to contact me.

Powdery mildews

Powdery mildew is often easily recognized by its white talcum-like growth. Powdery mildew colonies can vary for white and fluffy to colonies that are faint and hard to see. Colonies often start on the lower part of the plant where there is less air movement. Look closely for the fungal strands to distinguish from whitish spray residue.



Figure 1 & 2: Powdery mildew colonies on phlox (left) and coreopsis (right). Photos by L. Pundt

Many herbaceous perennials such as ***aster, centaurea, coreopsis, delphinium, monarda, phlox, rudbeckia, salvia, sedum*** and ***many others*** may become infected. If you are growing a diverse mix of herbaceous perennials, it is helpful to know the type of powdery mildew so you can better determine the potential spread of the disease to your crops. This will make your weekly scouting easier. For a chart of the more common powdery mildews and the host plants they attack, see the Penn State factsheet, [Powdery Mildew Cross Listing](#).

On susceptible varieties of sedum, brown scab-like lesions develop with little powdery growth. From a distance, it looks like a leaf spot disease or perhaps spray injury.



Figures 3 & 4: Powdery mildew on sedum. Photos by L. Pundt

Unfortunately, most ornamental crops are not selected for disease resistance. However, some resistant cultivars are available. See [Disease Resistant Annuals and Perennials in the Landscape](#).

Applications of silicon fertilization have slowed the progression of powdery mildew on zinnia, phlox and sunflower but did not eliminate it.

Preventive applications of biological fungicides or biorational materials are often helpful. They can be part of a rotation program with traditional chemical fungicides.

Use chemical fungicides preventively on highly susceptible crops. Always rotate among fungicide classes to discourage development of resistance. Certain fungicides, especially systemic fungicides, are at risk to development of resistance if they are used continuously. The fungicide resistance action committee has developed a numbering system for fungicides with the same mode of action (FRAC Codes). Fungicides with a high risk should be used in rotation with other fungicides or mixed with fungicides with different modes of actions. Repeated applications of fungicides are often needed.

Some of the fungicides that are rated very good to excellent against the powdery mildews include:

- Banner Maxx (propiconazole) (Banner Maxx) (28)
- Eagle (myclobutanil) (3)
- Terraguard SC (triflumizole) (3)
- Pageant Intrinsic (boscalid & pyraclostrobin) (7 & 11)
- Palladium WDG (cyprodinil & fludioxonil) (9 & 12)
- Mural (azoxystrobin & benzovindiflupyr) (11 & 7)
- Broadform (fluopyram & trifloxystrobin) (7 & 11)
- Orkestra Intrinsic (fluxapyroxad & pyraclostrobin) (7 & 11)

- Compass (trifloxystrobin) (Compass) (11)
- Potassium phosphites (Alude, Fosphite) (P07)
- Potassium bicarbonate (Milstop SP) (NC)
- Neem Oil (Triact 70)

Sources: From Compendium of Bedding Plant Diseases and Pests. APS Press published in 2018) and Michigan State Greenhouse Disease Management 2022 by Mary Hausbeck. <https://www.canr.msu.edu/resources/greenhouse-disease-management>

Another recent new fungicide from OHP is Seido fungicide, which is a new mode of action (FRAC 50) for control of powdery mildew on ornamentals. It is highly effective when applied preventatively and for early curative infections. Seido offers translaminar movement and redistribution on the leaf surface by vapor activity, which aids in coverage.

For more, see New England Greenhouse Management Guide online at <https://greenhouseguide.cahnr.uconn.edu/>

Consult and follow pesticide labels for registered uses. Many pesticides are labeled for only a limited number of perennial species. To avoid potential phytotoxicity problems, spot test before widespread use. No discrimination is intended for any products not listed.

Online registration is now open for the **Greenhouse Biological Control Conference on August 16th** at the Jones Auditorium in New Haven, CT. See: <https://greenhouse.uconn.edu/biocontrol-2/>

Featured speakers include:

- Ron Valentin, Director of Technical Business, Anatis BioProtection
- Suzanne Wainwright Evans, Buglady Consulting
- Elwood Roberts, Plant Products
- Michael Brownbridge, Bioworks

Registration includes boxed lunch and five pesticide credits. Preregistration is required, no walk ins.

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