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Vegetable Crops On the WEB at: <http://vegnet.osu.edu>

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Powdery Mildew and Downy Mildew Spotted on Pumpkins in Central OH by Bob Precheur, Mac Riedel, Lanny Rhodes, Jim Jasinski and Sally Miller

Pumpkins planted in late May and early June were showing early symptoms of both Downy and Powdery Mildew on Tuesday, July 24th. There were no symptoms of either disease the previous week. This field has not had any fungicides applied prior to this date. Since it is the last week of July, powdery mildew is arriving right about on time as in most years.

Growers should consider starting their disease control program very soon.

Symptoms of Downy Mildew are very similar to Powdery Mildew. Downy mildew will cause the upper sides of leaves to yellow and brown out and produce pale gray-purple fungal masses only on the underside of leaves.



Downy mildew of pumpkin. Symptoms on upper leaf surface (left), and olive grey lesions underside of leaf (center) and typical symptoms in field on (right).

Powdery Mildew will produce white fungal masses on the upper and lower leaf surface and the stem ruining quality if left uncontrolled. Also if downy or powdery mildew cause high defoliation, the fruit exposed to direct sunlight on hot summer days may begin to show symptoms of sunscald. Powdery Mildew will be more prevalent during drying weather; Downy Mildew will begin to show up more often during cool, wet weather.

Downy Mildew Recommendations – Sally Miller

Despite generally dry weather, downy mildew has been appearing in greater numbers of cucumbers and other cucurbit crops in Ohio, including melons and pumpkin. The only way to protect crops from this disease is the use of fungicides, including the mobile types such as Previcur Flex, Ranman and Tanos, tank mixed with a protectant fungicide such as Manzate or Bravo. Mobile fungicides should be tank mixed with protectant fungicides and alternated with each other to help prevent the buildup of

fungicide resistance. Once downy mildew has been observed in a field or nearby, the fungicide application schedule should be shortened to 5 days.



Powdery mildew pustules on upper leaf surface (left), and pustules growing together on upper leaf surface (right).

The first signs of powdery mildew are pale yellow spots on leaves, vines or petioles. These spots enlarge and become covered with white spores that appear powdery. Scout your fields by looking at the older leaves first although these symptoms can be found on younger leaves. Fields in low lying areas where mist forms and remains for long periods during the night are usually affected first. Make the first application when powdery mildew is detected in the area or is detected by scouting (one lesion on the underside of 45 old leaves).

Powdery Mildew Control for Cucurbits: There are a number of fungicides that can be used for powdery mildew management, including sulfurs (e.g. Microthiol), chlorothalanil (e.g. Bravo), myclobutanil (Nova) and triflumizole (Procure). Quintec (quinoxifen) is a very

effective powdery mildew fungicide but is labeled for melons only. Since Nova and Procure are the same type of fungicide, only one of them should be used and alternated with products with a different mode of action. Tank-mixing products such as Quintec, Nova or Procure with a sulfur fungicide will provide broad-spectrum protection, although it should be noted that sulfur can be phytotoxic to melon under certain conditions. Insensitivity of the powdery mildew fungus to strobilurin fungicides such as Quadris and Pristine have been reported, so if one of these fungicides is included in the program, particularly to manage other diseases, it must be alternated with a fungicide with a different mode of action and tank mixed with a contact fungicide such as sulfur or chlorothalanyl.

Phytophthora blight – Sally Miller

We have recently received samples of squash (see photo below), cucumber and pumpkin with Phytophthora blight. Fungicide options for management of Phytophthora blight are limited, and none of them can be expected completely control the disease. However, if Phytophthora blight is present in a field, fruits and vines should be protected with fungicides such as Acrobat, Gavel, Ranman or Tanos, tank-mixed with a protectant fungicide such as Maneb. Alternate fungicides to reduce the chance of fungicide resistance developing. Photo by

Rick Callendar.



Pumpkin Field Day, Date: 8/23/2007. 6:00 to 7:30 PM

Location: Western Agricultural Research Station, 7639 S.

Charleston Pike (Rt. 41), South Charleston, OH 45368

More Info and details coming: Contact: Jim Jasinski email:
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