Downy Mildew: May be Coming to a Field Near You by Sally A. Miller, Department of Plant Pathology

Downy mildew has now been reported on cucumbers in Monroe county (SE Michigan) and Niagara, Erie and Ontario counties in Western New York. The disease was found in commercial fields late last week and confirmed and reported July 7. This follows an outbreak in Aylmer, Ontario, Canada on cucumbers reported on June 20 (see VegNet #8–08: http://vegnet.osu.edu/news/currentvn08-08.htm).

The OSU Vegetable Pathology program has sentinel plots in Fremont, Celeryville, Wooster and South Charleston, Ohio in association with the multi-state ipmPIPE downy mildew monitoring program. So far we have not seen downy mildew on any of the cucurbit crops in the sentinel plots, and none has been reported from commercial fields in Ohio. However, it is likely that downy mildew is in the state, most probably in the Lake counties or elsewhere in northern Ohio. Cucumbers are the most susceptible of the cucurbits, but squash and pumpkins may start showing symptoms at about the same time (although we have usually seen a lag of a few weeks). Although we know that different strains of the downy mildew pathogen exist, we don’t know which strains were involved in the Ontario, Michigan and New York outbreaks. Results from the sentinel plots and research being conducted in several states may shed light on this in the coming months.

Ohio cucurbit growers should take precautionary measures including stepped-up scouting and application of protectant fungicides. One of the following fungicides, tank mixed with Bravo (0 days PHI), Manzate (not labeled for pumpkins) or Dithane (5 days PHI), and applied on a 7–10 day schedule, will provide protectant activity (products must be alternated to avoid development of fungicide resistance): Gavel (5 days PHI; not labeled for pumpkins), Previcur Flex (2 days PHI), Tanos (3 days PHI), Curzate (3 days PHI), Ranman (0 days PHI) or Presidio (2 days PHI). See detailed management recommendations in VegNet #8–08: http://vegnet.osu.edu/news/currentvn08-08.htm.

We need your help to efficiently report downy mildew outbreaks to the national database. If you find what looks like downy mildew in cucurbit fields, bring or send a sample (overnight delivery) for confirmation to Sally Miller or Fulya Baysal-Gurel, Department of Plant Pathology, The Ohio State University, OARDC, 1680 Madison Ave., Wooster, OH 44691, ph. 330–263–3838, or to the C. Wayne Ellett Plant and Pest Diagnostic Clinic, OSU, Kottman Hall, 2021 Coffey Road, Columbus, OH 43210, ph. 614–292–5006 (c/o Nancy Taylor). We will examine the lesions under the microscope to determine if the tell–tale spores characteristic of downy mildew are present.

Crop Reports by Matt Hofelich
Northern, Ohio July 7, 2008

Diseases Bacterial Spot / Speck has been reported in processing pepper and tomato fields in northern Ohio. The wet weather conditions that most areas of northern Ohio have experienced has resulted in isolated reports of Phytophthora in cucurbit, tomatoes and peppers crops. Growers are maintaining very tight spray schedules on all crops.
Insects  ◆ There are reports of moderate to heavy cucumber beetle activity and feeding on all types of cucurbit crops. ◆ Corn bore and ear worm traps in the Ottawa and Sandusky County areas have resulted in very few moths being caught in the last 7 days. ◆ Potato beetle has been noted in tomato fields in low numbers. ◆ Sticky traps set into cabbage fields are showing the presence of thrips. ◆
◆
Crops ◆ Fresh market summer squash and cucumber harvest began this week. ◆ Machine harvest of processing cucumbers should begin by July 9th with hand harvest starting the week of July 14th. ◆ Overall the pickle crop looks excellent. ◆ Early sweet corn harvest should start by this weekend July 12th. ◆ Processing and fresh market cabbage harvest should begin by July 25th.

Weather ◆ Frequent rainfall events of ◆ to ◆ inch have continued in the north central area of Ohio while heavier events 1 ◆ 5 inches have occurred in the northwestern Ohio region. ◆ The National Oceanic and Atmospheric Administration is calling for average rainfall in July with average to slightly above average temperatures. ◆