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## Downy Mildew Alert Downy Mildew Confirmed in Northeast Ohio

June 21, 2007 by Sally Miller and Ron Becker

Downy mildew was confirmed on cucumber leaves collected from a farm in Medina County, OH on June 20. None of the cucumbers in fields on eleven other farms scouted in the area, including northern Wayne county, showed symptoms of the disease. The cucumbers had not been sprayed with fungicides. This outbreak follows a report of downy mildew on production cucumbers in southwestern Ontario on June 8.

The weather in Ohio has been largely warm and dry this growing season, but Wayne/Medina counties have received approximately weekly thunderstorms, which may have provided favorable conditions for movement of downy mildew spores and crop infection. Ohio growers, particularly in the northern parts of the state, are

cautioned to take measures to prevent an outbreak of the disease in cucumbers. This includes stepped-up scouting and application of protectant fungicides on a 7–10 day schedule under current weather conditions. One of the following fungicides, tank mixed with Bravo (0 days PHI) or Dithane (5 days PHI), will provide protectant activity: Gavel (5 days PHI), Previcur Flex (2 days PHI), Tanos (3 days PHI), or Ranman (0 days PHI). Products must be alternated to avoid development of fungicide resistance.

Cucumber is the most susceptible of the cucurbits to downy mildew, and in the past we have not seen downy mildew on squash and pumpkins until several weeks after its appearance on cucumbers. However, growers should step up scouting of pumpkin and squash fields at this time and apply protectant fungicides if weather conditions are favorable and particularly if the disease has been reported in nearby cucumbers.

Please see the VegNet website for a detailed description of the disease and management recommendations (<http://www.ag.ohio-state.edu/~vegnet/news/currentvn13-07.htm>).

**Modified use of diazinon on potatoes by C. Welty**

The Ohio Dept of Agriculture just issued a new

special local needs label (24c) for use of Diazinon AG500 made by Makhteshim Agan of North America Inc. This registration allows use of one broadcast incorporated soil application per year on potatoes for control of wireworms and cutworms, only on potatoes that are not hand harvested. The label is similar to one we have had in Ohio since 2001 for the Diazinon AG500 product made by Helena Chemical Company. Although the Helena label is still valid, the Helena product is no longer being made. Makhteshim is now the sole registrant of diazinon. The new 24c label is posted on the internet at:  
<http://pested.osu.edu/documents/24%20C%20Labels/OH070003.pdf>

## Squash vine borer management by C. Welty

Squash vine borer adults are now active, which means that the first eggs are being laid at the base of squash stems, and larvae will soon be boring into the stems. There is one generation per year, with moths typically active from late June until late July. Plants that die from infestation start to droop in mid-July and are dead by late July to mid-August. This pest can be controlled by a preventive strategy of insecticide sprays directed at the base of plants. At sites where this pest is a significant problem every year, sprays are needed once per week for 4 weeks, from late June until late July. At sites where this pest is a minor problem, only two sprays are needed, in

early July and 10 days later. A pyrethroid (Pounce, Asana, Capture) or endosulfan (Thiodan) are most effective.

For about 10 years, we have been using a pheromone trap to detect activity of squash vine borer moths. We use a standard unitrap, which is a bucket-style trap that has a white bottom, a yellow midsection, and a green top. In earlier tests, we found the standard unitrap was more effective than the all-green unitrap or a standard sticky trap for trapping this moth. All of the traps work better when placed close to the ground than when several feet above ground. One of our observant trap cooperators tried using the squash vine borer pheromone in a large plastic-mesh cone-shaped trap (the 'Scentry Heliothis' trap), which is normally used to trap corn earworm moths, and found that this trap caught much higher numbers of squash vine borer moths than the standard unitrap. This year we set up one of the standard unitrap and one of the mesh traps on 30 May at Waterman Farm in Columbus. The standard unitrap caught the first squash vine borer moth on 13 June, while the mesh cone trap caught the first moth on 6 June. As of 18 June, the unitrap has caught 2 moths and the mesh cone trap has caught 13 moths. Although this is an unreplicated test, it appears that the mesh cone trap is superior to the unitrap for monitoring the squash vine borer. The main disadvantage of the mesh cone trap is that it is more expensive (\$55 opposed to \$9). It is also more unsightly in a garden situation.

## Crop Reports by Ron Becker

From 6/22/07 Wayne County IPM scouts found downy mildew in a Medina County cucumber field just north of the Wayne County line on June 20th. Eleven other farms in the same general area did not show symptoms in their plantings, but area growers are applying protectant fungicides. Early blight is being found in about a third of the area tomato fields with growers starting a 10–14 day fungicide spray program for protection and/or control. Bacterial spot has been found in pepper varieties that do not have genetic resistance. A severe infestation of bacterial speck was found in a tomato planting in Medina County. Due to the severity of the infestation and its occurrence within the field, it is suspected that the bacteria was present on the seeds of a specific variety. Cole crops had large numbers of Imported cabbage worm eggs, both recently laid (pale green) and nearly ready to hatch (dark yellow). Several fields needed to be sprayed due to the presence of both imported cabbage worm and diamond back moth larvae at threshold levels. Several potato fields were sprayed for potato beetle and potato leafhoppers. European corn borer is being found at low to moderate levels in sweet corn over 10 inches in height and at threshold levels in tasseling corn. Some corn is starting to silk and will be put on a 5–7 day spray schedule for corn borer control. Potato leafhoppers are being found in green beans with several

fields needing to be sprayed, but no pod damage has been found so far. Cucumber beetles are being found at threshold levels in several fields. Thrips are being found in onion fields at threshold levels (10–15 thrips per plant), though a few fields with what seems to be a beneficial mite present continue to have low levels of thrips. Tomatoes and peppers still have little insect activity, but timber rot is being found both in the field and in high tunnels. Eggplant has had flea beetle, potato leafhopper and potato beetle damage at low levels. Other insects being found on various crops include aphids, common stalk borer, armyworm and two spotted spider mites.

From Meigs county and southeast OH. Sweet corn harvest began in a few locations. Some tomatoes are ripe and harvest should be in full swing as we approach July 1. Heavy powdery mildew was found on zucchini squash in both young and older plantings. Be sure you are apply the right chemicals for control and alternating fungicides as recommended.