

VEGETABLE CROPS HOTLINE

A newsletter for commercial vegetable growers prepared by the
Purdue University Cooperative Extension Service

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<http://www.entm.purdue.edu/entomology/ext/targets/newslett.htm>

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DOWNY MILDEW OF CUCURBITS - (Dan Egel) - *The following article was written as a Vegetable Crops Hotline - BULLETIN, June 26, 2007.* This disease has been confirmed in extreme southeast Michigan in a homeowner's garden and is suspected in a nearby cucumber field. All cucurbit growers (the cucurbit family includes cucumbers, muskmelon, squash, pumpkin and zucchini) should be vigilant.

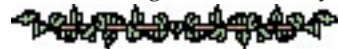
The recent outbreak was observed on June 25 and appears to be a new infection. This outbreak is too recent to have been reported at the downy mildew forecast center www.ces.ncsu.edu/depts/pp/cucurbit/. Growers in northern Indiana should begin a downy mildew spray program (see below). Growers in the rest of Indiana should monitor the progress of the epidemic and be prepared to manage the disease. A few days after downy mildew was reported in the same Michigan County in 2006, the disease was reported in northern Indiana.

Symptoms - Downy mildew is primarily a leaf disease. Often, the first symptoms one observes are yellow, angular or square looking spots on leaves. The underside of the leaves may be covered with a black fuzzy looking growth--this is the fungus that causes the disease. Leaves may eventually turn brown and crinkle. The leaves may turn upwards as they dry. Severe outbreaks may result in the rapid death of vines.

Disease cycle - The fungus that causes downy mildew has not been reported to over winter in Indiana; it "blows" in from southern states (or in this case, from greenhouses in Canada). Thus, we do not usually observe downy mildew until August or September.

Downy mildew requires a period of leaf wetness and high humidity for successful infection. Heavy dews can provide adequate moisture to get this disease going. Although the fungal spores may land in your field, there has to be leaf wetness for the disease to cause problems. The optimum temperature for downy mildew is 59 to 68 °F. Generally warm and dry weather over the next few days should slow the progress of any disease that might arrive in Indiana.

Control - Consult the Midwest Vegetable Production Guide for Commercial Growers www.btny.purdue.edu/Pubs/ID/ID-56/ for control measures. Briefly, contact fungicides such as chlorothalonil (e.g., Bravo, Echo, Equus) or mancozeb (e.g., Dithane, Penncozeb) can be used against downy mildews. Strobilurin products such as Cabrio, Flint, Ranman, and Quadris may provide adequate control if applied before the disease appears. There have been reports of some downy mildew resistance to strobilurin products; it is recommended to tank mix these products with a contact fungicide if downy mildew threatens. Recent data indicates that Previcur Flex, Tanos and Curzate have been effective systemic fungicides against downy mildew. Please consult the label for important application and resistance management instruction. The weather-based disease-forecasting program MELCAST was not designed for down mildew. Therefore, if downy mildew threatens, apply fungicides on a regular 5 to 7-day schedule.



CENTER PIVOT IRRIGATION SYSTEM UNIFORMITY - (Gene Matzat) - Lyndon Kelley, Michigan State/Purdue Extension Irrigation Educator, and Beth Clarizia, Indiana NRCS Ag Engineer, will be conducting a Center Pivot Irrigation System Uniformity Evaluation Workshop on Thursday, July 12, 2007, beginning at 9:30 a.m. CDT (note local time!) at Pinney Purdue Ag Center, Wanatah. The workshop will conclude at about 2:30 p.m. Cost will be \$10 to cover refreshments and meal (pay on the day of the workshop). Please register by calling our office (219) 324-9407.

Currently available irrigation scheduling tools will also be reviewed.

This training may be important to those producers who irrigate and who have enrolled or plan to enroll in the NRCS EQIP irrigation program, as NRCS personnel will be available to answer program questions and Extension staff will share research and other information based on experiences. CCA CEUs will be available (**no** PARP or CCH credits will be given).

A map to Pinney PAC can be viewed at www.agriculture.purdue.edu/pac.

For more information contact Gene Matzat, Extension Educator-Ag & Natural Resources in LaPorte County, (219) 324-9407.

Web Sites

Purdue Fruit and Vegetable Connection Web Site
www.hort.purdue.edu/fruitveg

Vegetable Insects and Their Management
<http://www.entm.purdue.edu/entomology/vegisite/>

Vegetable Pathology at Purdue
<http://www.btny.purdue.edu/Extension/vegpath.html>

Selected Publications

Midwest Vegetable Production Guide for Commercial Growers (ID-56)
<http://www.btny.purdue.edu/Pubs/ID/ID-56/>

Vegetable Crops Hotline Newsletter
<http://www.entm.purdue.edu/entomology/Vegisite/commercial/hotline2007.html>

Starting a Farmers' Market (EC-739)
<http://www.ces.purdue.edu/extmedia/EC/EC-739.pdf>

Electronic Mail List for Fruit and Vegetable Farmers
<http://www.hort.purdue.edu/fruitveg/fvmaillist.shtml>

Upcoming Educational Programs

(Watch for details in Purdue newsletters, or contact 219-785-5673, or purduenwhort@pnc.edu)

Pumpkin and Sweet Corn Twilight Meeting, September 11, 2007, Wanatah

Illiana Vegetable Growers' School, January 3, 2008, Schererville

Indiana Horticultural Congress, January 28-30, 2008, Indianapolis

Southwest Indiana Melon and Vegetable Meeting, March, 2008, Vincennes

Resources for Vegetable Growers



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