

VegNet Vol. 11, No. 12. June 30, 2004
Ohio State University Extension Vegetable Crops On the WEB at: http://vegnet.osu.edulf experiencing problems receiving this fax, Call 614-292-3857

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Cucumber Downy Mildew by Gerald J. Holmes, Associate Professor & Extension Vegetable Pathologist, Department of Plant Pathology North Carolina State University

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Colleagues, Just a guick note to make you aware of a situation that could be coming your way. We are currently going through the worst epidemic of downy mildew on cucumber that anybody here can remember seeing. Four things about this epidemic are noteworthy: 1) it arrived about 6 weeks earlier than usual; 2) it is more severe than usual on cucumber; 3) it is only causing a problem on cucumber (a couple reports on melon); 4) it has not been reported from SC or GA. Typically we can grow our spring cucumber crop without fungicides. Even in the fall, when DM is around and causing problems on pumpkins and squash, it is not much of a concern on cucumber. I have always attributed this to excellent resistance in most cultivars. This year we have fields that were abandoned before the first harvest because of DM. I was at a field day yesterday (put on by our breeder Todd Wehner) and had a chance to talk with several cucumber growers; most said they got 2-3 harvests when they would normally get 5-6. It caught nearly everybody by surprise and fungicides were not applied preventatively.

At this field day, Todd had 35 pickling cultivars and 28 long green cultivars in a performance trial (replicated 3X). Although they had all been treated with a Quadris—Kocide rotation (not a particularly good selection but that's what the station superintendant did), there was plenty of disease present. Most modern pickling cultivars looked

good with 'Vlasstar' and 'Jackson' holding up quite well. In the long greens, 'Speedway' and 'Dasher II' were much more susceptible than 'Poinsett 76' or 'Stonewall'.

If the disease moves north (more likely than normal), I think the key to controlling it will be disease–resistant cultivars and preventative fungicide applications. Neither one alone will likely be sufficient and chasing the disease once it gets started is usually a losing proposition. As for fungicides, there are quite a few options: chlorothalonil, Tanos, Ridomil Gold Bravo, Cabrio, Pristine and Gavel all have good activity against the disease in the south. I am not hearing that any of these are working well right now in NC, but I don't think they were used preventatively. Many growers reported using Quadris which I have not seen good results with in my trials. Cabrio would be the better strobilurin to use. If you're interested, you can see this in our efficacy table:

http://ipm.ncsu.edu/agchem/chptr6/615.pdf
The following link has background information on Downy
mildew in cucurbits:

http://www.ces.ncsu.edu/depts/pp/cucurbit/

OFFER Twilight Tour, OSU/OARDCs Organic Food and

Farming Education and Research Program. Thursday, July 1, 2004, 6:00 9:00 p.m.

OARDCs Wooster campus. Meet in front of Fisher Auditorium at 6:00 P.M. to shuttle/carpool to farms. Free and open to the public

Program: Introduction and Overview of OFFER Research: 6:00 p.m.

Guests choose which of the following two concurrent sessions they wish to attend:

Organic Vegetable Research and Composting: 6:30 8:00 p.m. (Horticulture Unit 1 and Fry Farm), Peri-Urban Vegetable Transition Project Year 2; Organic Composting (in partnership with OARDCs Ohio Composting and Manure Management Program); New Vegetable Variety Experiment; Vegetable Transition Experiment Year 4

Organic Grains and Winter Squash Research: 6:30 8:00 p.m. (West Badger Farm).

New Corn Varieties; Small Grains – Hard Wheat, Spelt, High-Oil Naked Oats; Compost Experiments Year 6; Forage Crop Experiment Year 3; Corn New Giant Ragweed Control Experiment; New Biological Buffering Research; Japanese Co-Op Soybean Marketing Research; Field Crop Transition Experiment Year 5; New Organic Disease Management for Winter Squash

Groups re-join: Organic Strawberry Research and Food

Tasting: 8:15 9:00 p.m Horticulture Unit 2). Cultivars, fertility amendments, economics Strawberries and organic ice cream social