

VegNet Vol. 11, No. 15, 16, 17 and 18, 2004

Special Edition: The last 4 newsletters together with the most recent on top

Update from southern Ohio Meigs County-

Growers have missed most of the rains, only 1/4 inch on Saturday July 31, while when visiting upstate Ohio we received 3-5 inches in Alliance & Chardon. Tomatoes & melons are ripening well. Sweet corn is feeling the effects of lack of rain. Best corn is being irrigated, rest has shorter ears. Peppers continue to mature, into 2nd & 3rd picking. Few European corn borer (zero to 2 a week) being caught in helio traps. Corn earworm moths caught in helio traps increased in counts from 3 to 17 this past week.

Pumpkins are setting in pumpkin patches, some Phytophthora root rot found in wet fields where standing water & irrigation water had been trapped.

This week hot and humid, expecting rain Wednesday night and cooler weather for the weekend.

VegNet # 18, August 19, 2004

Managing Lettuce Drop  
by Sally Miller

Midwestern vegetable growers have reported increasing losses due to drop in lettuce during the past several years. Cool, wet weather is very favorable for lettuce drop, caused by *Sclerotinia minor*, and in some areas *Sclerotinia sclerotiorum* as well. Both pathogens produce structures called sclerotia that can survive for many years in soil. These structures are small (< 1/16 inch) and generally round in *S. minor*, and irregularly shaped and considerably bigger (about 1/16 1/4 inch x 1/8 3/4 inch) in *S. sclerotiorum*. All lettuce cultivars are susceptible to this disease, which has been managed in the past using applications of the fungicides Rovral and/or Ronilan. However, growers are seeking alternative products for effective, long-term management of this disease.

New products for lettuce drop management. Research in 2002 and 2003 in Arizona (Dr. Mike Matheron, University of Arizona) has shown that the fungicide Endura (boscalid, BASF) significantly reduced drop caused by both *S. minor* and *S. sclerotiorum* in lettuce, and was more consistent from year to year than Ronilan or Rovral. In our on-farm trial in Ohio in 2003, under very severe disease pressure (60% incidence of drop in the untreated control), Endura applied twice (alternated with Rovral) did not significantly reduce drop. In the Arizona trials, the biofungicide Contans (distributed by Sylvan Bioproducts, contact Bill Stoneman (billstoneman@charter.net; 608-268-7040)), a fungus (mycoparasite) that kills sclerotia of both *S. minor* and *S. sclerotiorum*, was highly effective in controlling drop caused by *S. minor* when combined with an application of Endura. Recent

results by researchers studying white mold (caused by *S. sclerotiorum*) of canola in Germany have shown that the best time to apply Contans is just after harvest, when sclerotia are on the surface and can be readily attacked by the Contans fungus. Reducing the population of sclerotia of either pathogen using Contans may take several years: deeply buried sclerotia may not be exposed to the Contans mycoparasite at the time of application. As sclerotia are continually mixed and brought to the soil surface through cultivation, they will be exposed to the mycoparasite and eventually sclerotia numbers will decrease. According to the manufacturer, Contans MUST be incorporated 4-8 inches into the soil after application in order to maximize contact of the mycoparasite with sclerotia. They also concur that the product should be applied after harvest (with incorporation) in order to allow plenty of time for the mycoparasite to find and kill the sclerotia. Lettuce drop is a persistent problem that may require a multi-year, multi-tactic approach to management. The high levels of drop that have occurred in lettuce fields over the past three years in many Midwestern growing areas have contributed to increasing numbers of sclerotia in soil, which will increase disease pressure. Now is the time to start thinking about managing lettuce drop for next year and years to come.

VegNet Vol. 11, No. 17. August 13, 2004

Important Notice on Downy Mildew

Richard M. Riedel

Editors Note: Downy Mildew has developed very rapidly in the past week since last Friday, August 6.

Downy Mildew is developing rapidly on all vine crops in Ohio now. The cool moist weather favors development of this disease. The fungus causing Downy Mildew will destroy foliage; it does not directly affect fruit. However, loss of foliage can reduce yield and expose fruit to sunscald. Rapid foliage loss will prevent any fruit development and ripening of fruit already set on vines.

Fungicides to control Downy Mildew need to be applied NOW. Strobiluron fungicides will give control. Chlorothalonil and EBDC fungicides will not. Since strobilurons need to be alternated with these materials, Ridimol Gold will need to be added to the chlorothalonil or EBDC sprays.

Symptoms: The disease is most important on cucumber and cantaloupe though all cucurbits are susceptible. Infected leaves first show a mottling followed by light yellow spots. These spots are angular and limited by the small veins of the leaf. These areas coalesce and turn tan to brown. A fine white to gray downy growth soon develops on the underside of the leaf but may not be easily seen during the day. During periods of high moisture this growth may turn to a gray or purple color. Infected leaves die but remain erect while the edges of the leaf blade curl inward. Plants look as if they have been scorched or burned. Severe infection results in defoliation, stunted plants and poor fruit development. See our publication:

Important Pests and Diseases of Pumpkin in Ohio for pictures. Copies are available from: C. Welty, welty.1@osu.edu or 614-292-2803.

VegNet Vol. 11, No. 16. August 12, 2004

Insect pest update

C. Welty

New adult moths of European corn borer began emerging in late July and have been present in increasing numbers during the past week. Emergence is not likely to be peaking yet. Egg masses were found on pepper leaves this week at Fremont, and eggs should be abundant on fresh-silking sweet corn also. Among our trap cooperators, the highest numbers of moths are being caught in Wood County where a blacklight trap caught 227 borer moths in one night last weekend. Among pheromone traps, highest catch is from Miami County where over 100 borer moths were caught in the past week. The next two weeks are predicted to be the best time for pepper growers to use Orthene, which is allowed for only two applications per year.

Moths of the corn earworm are being detected at several locations although in low to moderate numbers. Pheromone traps caught 10 in Miami County, 6 in Meigs County, 6 in Franklin County, 0 in Clark County, 0 in Huron County, and 2 in Sandusky County. Earworms can be prevented from infesting silking sweet corn if insecticides are used on a 5 day schedule (see sweet corn chapter of Ohio Veg Production Guide for more details about spray schedule based on trap catch and temperature.

Beet armyworm remains active in Ohio. Recent pheromone trap catches are 17 in Henry County, 75 at Clark County, 36 in Greene County, 4 in Franklin County.

Peppers and tomatoes should be scouted for beet armyworm larvae if moths are being caught in the area.

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Crop Reports From August 4

Hal Kneen

VegNet Vol. 11, No. 15. July 29, 2004

Section 24(c) label for Ridomil Gold on Brassica Greens

Sally Miller

The Ohio Department of Agriculture has approved a FIFRA Section 24(c) Specific Local Needs label for the use of Ridomil Gold [ in Ohio to control downy mildew in Brassica greens including broccoli raab, collards, kale, mizuna, mustard greens, mustard spinach and rape greens. Ridomil Gold [ must be applied in a tank mix (rate = 0.125 0.25 pt/A) with a labeled protectant fungicide in order to reduce the chance of development of resistance in the downy mildew pathogen to the fungicide. Foliar treatments should begin when conditions are favorable for disease but before

infection. Ridomil Gold may be applied as a foliar spray on a 14day schedule with a maximum of two applications per crop. Ohio growers applying Ridomil Gold to Brassica greens must have the SLN label in their possession. It can be downloaded from the following website: <http://pested.osu.edu/> Go to General Information, click on Ohio 24(c) registrations and scroll down to OH04004. Click on this to download the PDF file.

### Online Edition of the 2004 Ohio Vegetable Production Guide, Now Available

Please note: The 2004 Ohio Vegetable Production Guide is available electronically only in PDF format. The software necessary for viewing these documents is available, free of charge, from Adobe Systems

### What's New At The VegNet Web Site

#### Problem Of The Week

A pictorial comparison of Squash Vine borer damage and Bacterial Wilt in pumpkins. While the symptoms are similar, there are some key differences. Check it out. Click on the 'Problem of the Week' button of the left side.

#### VegNet Vegetable Schools

A series of slide presentations are now available in order to update you on the latest pumpkin and sweet corn research. We begin with 6 pumpkin topics in Pumpkins 101 and have 10 slide presentations available in Sweet Corn 101. In sweet corn. Powerpoint presentations and html online slide shows are available now. Go to the VegNet homepage.

#### Pumpkins 101

The use of trap crops and Admire for cucumber beetle control and New varieties for 2001. We have presentations on cover crops for disease control and pumpkin fungicide use.

Perimeter Trap Cropping. Online html slide show | Perimeter Trap Cropping. PPT, 7 Mbytes

See also the Research Results section on the home page for text version of the report.

#### Sweet Corn 101

Presently only Powerpoint presentations available. Coming Soon: Online HTML slide shows. Check back often Nine topics including:

Aspects of Variety Selection based on Disease Control [ ppt 40 KB]

Internet Link To "Reactions of Sweet Corn Hybrids to Prevalent Diseases" Dr. Jerald Pataky [www.sweetcorn.uiuc.edu](http://www.sweetcorn.uiuc.edu)

Producing Early Sweet Corn [ ppt 3.5 Mbytes ]

Managing Weeds in Sweet Corn [ ppt, 9 Mbytes ]

Sweet Corn Herbicides & Variety Sensitivity. [ ppt 2Mbytes ]

Sweet Corn Development and Critical Periods for Irrigation Management [ppt 1.6 Mbytes ]

Flea Beetle Management in Sweet Corn [ ppt 510 KB ]

How To Keep Worms Out of Sweet Corn Ears [ ppt 8.3 Mbytes ]  
Role of Bt Transgenic Hybrids in Sweet Corn Pest Management. [ ppt 21.2 Mbytes ]  
Bt Sweet Corn Efficacy in OH, 1999-2000 [ppt, 208 KB ]

[Return to Vegetable Crops Homepage | Ohio State University Extension](#)

We appreciate very much the financial support for this series of vegetable reports which we have received from the board of growers responsible for the Ohio Vegetable and Small Fruit research and Development Program. This is an example of use of Funds from the "Assessment Program".

Where trade names are used, no discrimination is intended and no endorsement by Ohio State University Extension is implied. Although every attempt is made to produce information that is complete, timely and accurate, the pesticide user bears the responsibility of consulting the pesticide label and adhering to those directions.

Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Keith L. Smith, Director, Ohio State University Extension.

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