



## VegNet Vol. 10, No. 17, September 4, 2003



### Corn earworm alert

C. Welty

Large numbers of corn earworm moths have been detected by traps at some central Ohio locations during the past 2 weeks, which means that late season sweet corn plantings will need a more intensive spray schedule than during the previous few weeks if corn ears are to be free of worms at harvest. Details of spray schedules based on trap catch are found in the sweet corn chapter of the Ohio Veg Production Guide. If temperatures remain below 80F, a 3-day spray schedule is needed during silking at sites where moth catches are more than 90 per week, or a 4-day spray schedule is needed during silking at sites where moth catches are 7 to 90 per week. Insecticide is not needed during the last 6 days before harvest. Insecticide options for corn earworm control on sweet corn are the pyrethroids (Asana, Mustang, Baythroid, Warrior, Capture), Lannate, Larvin, and SpinTor.

The number of earworm moths caught in pheromone traps this week were: 16 in Meigs County (up from 5 the previous week), 347 in Franklin County (up from 7), 10 in Clark County (up from 1), 241 in Miami County (up from 123), 20 in Wayne County/Wooster (up from 5), 7 in Huron County (up from 2), 2 in Sandusky County (up from 1), and 0 in Wood County (same as previous week).

#### European corn borer update

Peppers and sweet corn currently are at risk of infestation by European corn borer. Borer moths are still active and laying eggs, but we are now just past the peak egg-laying period.

On sweet corn, the spray schedule needed for corn earworm will also control the European corn borer; in areas where corn earworm is not active, a 5-day spray schedule will control borer during the peak egg hatch period. Insecticide options for European corn borer control on sweet corn are pyrethroids (Pounce, Mustang, Baythroid, Warrior, Capture), PennCap-M, Lannate, Larvin, SpinTor,

## **and Intrepid.**

The best insecticide to use on peppers for borer control during peak egg hatch is Orthene, but it can be used only two times per year. Three new insecticide options this year for peppers are Warrior (5-day PHI), Mustang Max (1-day PHI), and Intrepid (1-day PHI); Intrepid is an insect growth regulator that is an improved version of Confirm. Other insecticides than can be used for borer control on peppers are Baythroid (7-day PHI), Mustang (1-day PHI), Capture (7-day PHI), Pounce (3-day PHI), SpinTor (1-day PHI), and Confirm (7-day PHI).

The number of male European corn borer moths caught in pheromone traps this week were: 0 in Meigs County (same as previous week), 14 in Franklin County (down from 26), 5 in Clark County (up from 4), 330 in Miami County (up from 294), 182 in Wayne County/Wooster (up from 173), and 31 in Sandusky County (down from 42).

The number of European corn borer moths, males plus females, in blacklight traps was 177 in Wood County (down from 312). Trap contents in Franklin County were ruined by rain, and counts are not yet available from traps in Huron County and Sandusky County.

## **Other insect pests**

Corn leaf aphid is showing up in heavy infestations on ear husks in some fields. This pest can be difficult to control. The best time for control is in early silking. The most effective insecticide is PennCap-M; Larvin is a second choice. Care must be taken to not use these insecticides when bees are active. Fields should be scouted a few days before pollen shed is expected, and if aphids are found then treatment can be made before bees move into the field.

Fall armyworm moths have been detected in large numbers in Columbus during the past 2 weeks, and in smaller numbers at Celeryville. This pest can attack late sweet corn, tomatoes, and peppers. It is usually much more difficult to control than other caterpillars. Larvin works well for controlling it on sweet corn. On tomatoes and peppers, the pyrethroids are the best bet, with the exception of Asana which does not work well against this pest.



## **Weather ripe for disease development on pumpkins.**

**By Andy Wyenandt and Dr. Mac Riedel, Dept. of Plant Pathology, Ohio State University**

[NOTE: Links to pictures are provided in the web version of this article. See "Problem of the Week" on the VegNet homepage. <http://vegnet.osu>] With the wettest August weather in Ohio history and wet weather to start September pumpkin growers need to be well aware of potential disease problems. This summer pumpkin growers have been faced with more disease pressure than in the past because of all the heavy, frequent rain. Growers in Ohio needed to start their fungicide maintenance programs a few weeks early this year because of Anthracnose which began to show up on foliage in early July. Left untreated, the fungus can cause damage to fruit. Anthracnose produces distinct symptoms and

growers should look for orangish/pink spore masses which develop on the veins on the underside of leaves. Similarly, small concentric lesions can develop on fruit if spores are splashed around during rainfall. Another problem which has shown up in the past month on pumpkin foliage is Downy Mildew. Symptoms of Downy Mildew are very similar to Powdery Mildew. Downy mildew will cause the upper sides of leaves to yellow and brown out and produce grayish/white fungal masses only on the underside of leaves. Powdery Mildew will produce white fungal masses on the upper and lower leaf surface and the stem ruining quality if left uncontrolled. Also if downy or powdery mildew cause high defoliation the fruit exposed to direct sunlight on hot summer days may begin to show symptoms of sunscald. Powdery Mildew will be more prevalent during drying weather; Downy Mildew will begin to show up more often during cool, wet weather. Microdochium blight, or 'white speck', seems to become more and more prevalent each year in Ohio pumpkin fields. The fungus will produce small white lesions which can develop very quickly on all parts of pumpkin foliage and then spread to the topside of fruit causing aesthetic damage to the fruit and stem. With all this extremely wet weather over the Labor Day weekend Phytophthora blight can become a serious problem if fields remain under water. Phytophthora blight can become serious problems in low lying areas and can cause green vines to look wilted while nearby vines look healthy. Infected fruit will begin to develop white cottony growth and eventually rot off the vine. Fusarium fruit rot is one disease that growers may not realize is present until they begin to harvest. The fungus will invade the belly side of fruit that is in direct contact with the soil. Symptoms include small to large red/purple expanding circular lesion that often has white, cottony centers. Another disease common in pumpkin fields this year has been Bacterial Spot. The bacterium causes small, circular lesions that can be confused with insect feeding damage, although the pathogen appears to be contained on the surface of the fruit it can penetrate the seed cavity and cause the fruit to rot prematurely. Another bacterial disease which will cause wilting and death of vines is Bacterial Wilt. Petioles of infected plants will begin to appear stand upright and the leaf will begin to curl down with the area between major leaf veins turning yellow then brown. A good insecticide program for the control of striped cucumber beetle when the first populations appear is necessary keep bacterial wilt infection to a minimum. The striped cucumber beetle is often confused with the corn rootworm. A very simple way to tell them apart is that the striped cucumber beetle has a black belly and the corn rootworm has a yellow belly and does not transmit the bacterium. Symptoms of virus infection are beginning to show up on infected plants and fruit. Infected plants can be stunted, often have irregular leaf shapes, and reduced fruit set if vines are infected early in the growing season. The most common virus in Ohio, Watermelon Mosaic Virus, is transmitted by aphids. Virus infection can cause fruit to become bumpy, show ring spots and cause uneven (mosaic) or premature ripening. Unfortunately, it is difficult to control virus infection because it is unfeasible to spray for aphid control. Growers may avoid virus problems by planting their pumpkins earlier in the growing season. For more information on the control of these diseases and insects growers should consult their Ohio Vegetable Production Guides or contact their local extension agent or crop advisors. Growers can also contact Dr. Mac Riedel @ [riedel.1@osu.edu](mailto:riedel.1@osu.edu) or Andy Wyenandt, @ [wyenandt.1@osu.edu](mailto:wyenandt.1@osu.edu) or by phone at The Ohio State University, Dept. of Plant Pathology at (614)292-9355.



## The 7 Day Outlook

## R. Precheur

September 4, 2003; A WEAK COLD FRONT WILL MOVE ACROSS THE STATE TODAY.

HIGH PRESSURE OVER THE MIDWEST WILL BUILD INTO OHIO ON FRIDAY.

THE WEEKEND SHOULD REMAIN MAINLY DRY. HOWEVER...A WEAK COLD FRONT THAT WILL BE APPROACHING THE STATE LATE SUNDAY MAY CAUSE A THREAT OF SHOWERS OVER THE NORTHEAST COUNTIES SUNDAY NIGHT. HIGHS WILL BE IN THE 70S ACROSS THE STATE THIS WEEKEND.

### Akron Canton

| Day/Date     | SAT 06 | SUN 07 | MON 08 | TUE 09 | WED 10 | THU 11 |
|--------------|--------|--------|--------|--------|--------|--------|
| Temp Min Max | 54 69  | 58 69  | 60 67  | 58 66  | 58 67  | 57 65  |
| POP 24 hrs   | 7      | 14     | 22     | 33     | 30     | 34     |

### Cincinnati-

| Day/Date     | SAT 06 | SUN 07 | MON 08 | TUE 09 | WED 10 | THU 11 |
|--------------|--------|--------|--------|--------|--------|--------|
| Temp Min Max | 56 72  | 58 72  | 60 73  | 62 73  | 60 72  | 60 71  |
| POP 24 hrs   | 1      | 6      | 10     | 21     | 21     | 25     |

### Cleveland

| Day/Date     | SAT 06 | SUN 07 | MON 08 | TUE 09 | WED 10 | THU 11 |
|--------------|--------|--------|--------|--------|--------|--------|
| Temp Min Max | 57 70  | 59 69  | 61 70  | 60 67  | 60 68  | 60 67  |
| POP 24 hrs   | 7      | 15     | 22     | 31     | 29     | 33     |

### Columbus

| Day/Date     | SAT 06 | SUN 07 | MON 08 | TUE 09 | WED 10 | THU 11 |
|--------------|--------|--------|--------|--------|--------|--------|
| Temp Min Max | 57 74  | 59 76  | 61 74  | 61 72  | 60 72  | 59 70  |
| POP 24 hrs   | 4      | 9      | 15     | 29     | 25     | 28     |

### Dayton

| Day/Date     | SAT 06 | SUN 07 | MON 08 | TUE 09 | WED 10 | THU 11 |
|--------------|--------|--------|--------|--------|--------|--------|
| Temp Min Max | 54 72  | 57 73  | 59 73  | 60 71  | 59 71  | 59 68  |
| POP 24 hrs   | 1      | 7      | 14     | 23     | 22     | 26     |

### Findlay

| Day/Date     | SAT 06 | SUN 07 | MON 08 | TUE 09 | WED 10 | THU 11 |
|--------------|--------|--------|--------|--------|--------|--------|
| Temp Min Max | 54 70  | 57 72  | 59 68  | 59 69  | 58 70  | 58 67  |
| POP 24 hrs   | 1      | 7      | 16     | 22     | 22     | 25     |

### Mansfield

| Day/Date     | SAT 06 | SUN 07 | MON 08 | TUE 09 | WED 10 | THU 11 |
|--------------|--------|--------|--------|--------|--------|--------|
| Temp Min Max | 54 67  | 57 70  | 59 66  | 58 66  | 57 67  | 57 65  |
| POP 24 hrs   | 16     | 23     | 27     | 43     | 40     | 44     |

### Toledo

| Day/Date     | SAT 06 | SUN 07 | MON 08 | TUE 09 | WED 10 | THU 11 |
|--------------|--------|--------|--------|--------|--------|--------|
| Temp Min Max | 54 70  | 58 73  | 61 69  | 58 69  | 59 71  | 58 67  |
| POP 24 hrs   | 8      | 18     | 23     | 30     | 32     | 35     |

### Wilmington

| Day/Date     | SAT 06 | SUN 07 | MON 08 | TUE 09 | WED 10 | THU 11 |
|--------------|--------|--------|--------|--------|--------|--------|
| Temp Min Max | 52 69  | 55 70  | 57 70  | 60 69  | 58 68  | 58 68  |

POP 24 hrs | 1 | 7 | 13 | 24 | 22 | 26

#### Zanesville

| Day/Date     | SAT 06 | SUN 07 | MON 08 | TUE 09 | WED 10 | THU 11 |
|--------------|--------|--------|--------|--------|--------|--------|
| Temp Min Max | 53 72  | 56 74  | 59 72  | 59 70  | 58 70  | 56 69  |
| POP 24 hrs   | 2      | 7      | 15     | 29     | 23     | 27     |

\* POP = probability of precipitation for the 24 hour period.



## 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 Heribicies & 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 ]**



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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".

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