

Insect News
C. Welty

Corn earworm alert:

There has been a large increase in the number of corn earworm (=tomato fruitworm) moths caught in pheromone traps this week. The number of earworm moths per trap in past week was 11 in Meigs Co., 82 in Columbus, 27 and 32 in Wayne Co., 27 in Summit Co., and 0 and 21 in Sandusky Co. These moths have probably migrated into Ohio from the southern USA. When trap catches are between 6 and 90 moths per week, the suggested spray schedule for silking sweet corn is every 4 days if temperatures are above 80F or every 5 days if temperatures are below 80F. If trap catch exceeds 90 moths per week, then the schedule should be intensified to one day shorter intervals.

European corn borer:

The peak population of borer moths was last week (8/4- 8/10) when 221 moths were caught in our blacklight trap at Fremont; numbers are now falling, with 103 moths caught from 8/11-8/17. For this generation in Ohio, these moth numbers are lower than usual; 600-800 moths per week at peak is common in many years. We thus can hope that damage to sweet corn and peppers might not be as severe as in some years. If hot weather continues, there is a chance for another generation in September.

Hornworms:

Hornworms that were large larvae in late July are now entering their adult (moth) stage. There is no pheromone trap available to monitor this pest, but these large hawk moths (the size of hummingbirds) are caught in our blacklight trap. We had caught some hornworm moths in late June, then none until the past 2 weeks, when there have been up to 17 hornworm moths caught in one night. Eggs are likely being laid in tomatoes, peppers, and potatoes, with larvae showing up within the next few weeks.

Common questions about viruses on pumpkins

Q: Which virus is it?

A: Watermelon mosaic virus (now abbreviated as simply WMV, but formerly called WMV-2) was by far the most common virus detected when we ran ELISA tests on thousands of pumpkin leaf samples from across Ohio from 1994 to 1996. We occasionally found cucumber mosaic virus, squash mosaic virus, and papaya ringspot virus (formerly called WMV-1). We never detected zucchini yellow mosaic virus. [Visit 'Problem Of The Week' at the VegNet website for examples of virus symptoms on pumpkins]

Q: How do viruses get in a field?

A: Aphids are the vectors of all of the viruses listed in the previous question, except for squash mosaic virus which is vectored by cucumber beetles and which can be seed borne. Although most aphids are wingless, all aphid species have wings at some times in the season. It is the winged aphids that start a new infestation in fields.

Q: If I use insecticide to kill aphids, why do plants still get virus?

A: Viruses like WMV are transmitted quickly while the aphid is probing the leaf with its mouthparts, before it picks up the lethal dose of insecticide. Insecticides can do a good job of killing aphids that colonize pumpkin plants, that is, ones that stay to feed and reproduce. Insecticides can also do a good job of killing non-colonizer aphids, which are the ones that land in pumpkins take several tastes, then fly on to find more preferred hosts. In either case, the virus is transmitted before the aphids die.

Q: Will I get a harvestable pumpkin crop if my field has virus?

A: Usually yes. Most Ohio fields that get WMV start to show leaf symptoms (leaves twisted, warty, mottled light green and dark green color) in late July and symptoms are usually widespread by mid-August. Many fruit that were set before this time will show only mild virus symptoms: mostly uneven coloration and light green circular rings. Fruit set usually still occurs after virus infection but fruit symptoms are more severe: lumpy fruit with very uneven coloration.

Q: Do the aphids come from nearby or far away?

A: Both, but probably most are local. The most common species that land in pumpkin fields in Ohio are corn leaf aphid, artichoke aphid, green peach aphid, turnip aphid, melon aphid, cowpea aphid, potato aphid, and sunflower aphid. We have tested several of these for their ability to transmit WMV to pumpkins. We found that green peach aphid and melon aphid are good vectors, artichoke aphid and potato aphid are weak vectors, and corn leaf aphid is unable to vector this virus.

Q: Do aphids coming from far away bring the virus with them?

A: No, it is very unlikely.

Q: Where do the aphids pick up the virus?

A: We do not know for sure, but we think that there is a reservoir of virus in some species of local plants. We have tested about 50 species of plants for WMV. Most of the plants tested were perennial weeds, along with some perennial crops and annual weeds. The plants that were found to contain WMV were shepherd's purse, Virginia pepperweed, field bindweed, dandelion, purple deadnettle, and goldenrod.

Q: How can this virus be managed?

A: Resistant varieties seem to be the only way. Several WMV- resistant pumpkin varieties are under development and should be commercially available within 1 2 years.

New Resources for Information On Marketing.

1. "Marketing Options for Commercial Vegetable Growers" (B. Rowell, University of Kentucky Publication ID-134). Tim Woods (Ag Econ), Jim Mansfield (KY Dept. of Ag) A document which will provide a good basic introduction to marketing of commercial vegetable crops. This is something extension agents can give to new growers. The publication was written with tobacco growers in mind with the following introductory headings: "Tobacco is not a Vegetable", "Joint Marketing and Production Decisions", "Playing by the Rules", "Counting the Costs", and "Choosing a Market". Most available produce marketing options are compared and contrasted including direct markets, produce auctions, cooperatives, local wholesalers, direct store deliveries, chain stores, terminal market brokers, etc.

ID-134 is available in print and on the web in both html and pdf formats under the UK College of Agriculture's "Pubs Online" pages

at:<http://www.ca.uky.edu/agc/pubs/agpubs.htm>

This list is alphabetical so you will need to scroll down into the "I" section to get to "ID-134". Our primary production publication "Commercial Vegetable Crop Recommendations" (ID-36) can also be found in this list.

2. "Farmers and their Diversified Horticultural Marketing Strategies".

An new educational video on innovative marketing is available. This 49-minute video features descriptions of 8 successful farms in MA, ME, NY and VT that employ a variety of approaches to selling their products.

The marketing methods covered are: roadside stand, farmers market, large-scale community supported agriculture, internet sales, pick-your-own, restaurant sales, and wholesale cooperative.

The video can be ordered from:

Center for Sustainable Agriculture,
University of Vermont,
590 Main St.,
Burlington, VT 05405-0059.

The cost per video is \$15 including postage within the continental US. Orders must be prepaid with a check or money order made to 'UVM'. When ordering, please provide your complete mailing address, a daytime telephone number and indicate your primary occupation (farmer, extension, etc.).

For more information call (802)656-5459 or e-mail susagctr@zoo.uvm.edu

Crop Reports

H. Kneen

Southeast:

Cooler temperatures and scattered rainfall on Aug. 13 &14, less than 0.3 inches reported. The temperatures soared back into the 90's early this week. Fog in the morning has increased early blight pressure in tomatoes and mildew on pumpkins, squash and melons. Some tomato fields are already finished and a cover crop planted. Sweet corn is still being harvested, some corn borer damage at row ends where sprays have missed. Meigs County Fair this week and fruit and vegetable entries are over 400, the largest in several years.

TOMCAST Report

J. Jasinski

DSV Hotline -1-800-228-2905

TOMCAST is a tomato disease forecasting network which many growers find aids in their timing of fungicide applications. As of August 18, the total TOMCAST DSV, are given for each station below:

The current stations and DSV counts as of August 18, 1999:

If you have further questions, please contact: J. Jasinski
at 937-454-5002 or
jasinski.4@osu.edu

The 7-10 Day Outlook*

Temperature:

From 18 Aug to 23 Aug, the mean surface temperature will be 60 to 70 degrees for all of OH.

From 23 Aug to 28 Aug, the mean surface temperature will be 60 to 70 degrees for all of OH except extreme southwest OH will be 70 to 80 degrees.

Precipitation:

From 18 Aug to 23 Aug, expect about 0.2 to 0.5 inches for the northern one third of OH, and expect 0.5 to 1.0 inches for the southern two thirds of OH.

From 23 Aug to 28 Aug, expect 0.1 to 0.3 inches for the northern half of OH. For the southern half, expect 0.2 to 0.5 inches.

During these periods, most of the precipitation will come from thunderstorms and rainfall levels can vary widely in the affected areas.

[Editors Note: Long term precipitation forecasts (5 days or more) are much less accurate than short term (the next 4 to 5 days)..]

What's New At The VegNet Web Site

Visit "The Talk Between The Rows" Did You Make It To 'The Horticultural Field Night' in Hillsboro??

If not, take the Virtual Tour. See: tomatoes, pumpkins, melons and more.

Visit "Problem Of The Week", See: Watermelon Mosaic Virus Symptoms on Pumpkin Leaves, Revisited

Muck Crops DAY

If you didn't make the tour, take the virtual tour.

See: Lettuce, green onions, parsley and more.

Visit "Problem Of The Week", See: Spider Mites On Pumpkin Leaves

The Washington/Meigs Vegetable Tour

If you didn't make the tour, take the virtual tour. The Washington-Meigs Annual Twilight Vegetable Tour was held June 23. at Witten Farms, Take the virtual tour and see sweet corn, tomatoes, melons and more.

"Problem Of The Week from July 1"

See:

Command Carryover Damage on Tomatoes

Bacterial Wilt in Melons

Drought Conditions

A New Section to VegNet

This week see our newest section: Vegetable Pest Trap Summary
Here you can review the trap counts of various pests from around the state.
You can get to it from the main homepage.
Impatiens Necrotic Spot on Pepper Transplants
1999 Ohio Vegetable Production Guide - Online. Visit: "The Library

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.

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