

VegNet Vol. 12, No. 16. August 18, 2005
Ohio State University Extension Vegetable Crops
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Insect Report More from 7/27/05 by C. Welty

New product Oberon for mite and whitefly control

Oberon is a new insecticide/miticide that was registered in May 2005 for control of two-spotted spider mite, broad mite, whiteflies, and psyllids on melons, squash, and other cucurbit crops; eggplant, tomato, peppers, and related fruiting vegetable crops; lettuce and other leafy greens; brassica leafy crops; potato and other tuber and corm crops; and strawberries. Oberon kills target pests in all stages: egg, nymph, and adult, but is strongest on juvenile stages. Oberon is classified as general use, not restricted use. Oberon contains spiromesifen as the active ingredient, which is part of a new family called tetrionic acids. It is formulated as a 2 SC (suspension concentrate), and is made by Bayer. On cucurbits and most veg crops, the rate is 7 to 8.5 fl oz per acre, the pre-harvest interval is 7 days, and the re-entry interval is 12 hours.

Spider mite on vine crops

The recent hot dry weather has contributed to flare-ups of two-spotted spider mite on melons and squash as well as other crops such as beans and even tomatoes. Because mites are small, they are often overlooked. Mite damaged plants usually look yellow and have webbing on the leaf undersides. Mites have many natural enemies that kill them, but mite outbreaks occur when the natural enemies are not abundant, so that chemical intervention can be needed to keep the crop alive. Miticide choices vary somewhat by crop (for example, dimethoate can be used on melons but not on squash), but in general Agri-Mek is one of the most effective. Acramite is another good alternative. An excellent new choice is Oberon as described in article above. Although Capture and Danitol are labeled for spider mite control when used at the high end of the rate range, they are generally not very effective for mite control. Kelthane is an old miticide that is still effective at some sites, but does not perform well at sites where resistant populations have developed.

Disease Notes Several Sources and by Sally Miller
Banana Pepper Problem

Pepper problem in MI, OH and PA. Photo by Mathieu Ngouajio, MSU. Symptoms reported by M. Ngouajio: The fruits have extensive brown spots, making them unmarketable. The leaves look fine. The fields were regularly irrigated but this summer has been exceptional hot.

We are also seeing this symptom on banana peppers in northwest Ohio on banana peppers. We saw it last year and it was diagnosed as Cucumber Mosaic Virus (CMV). Last year we also had very characteristic symptoms on leaves such as the oak leaf pattern as well as mottling, stunting, leaf malformation and defoliation. This year, the growers were telling us that the leaves looked fine. However, today I went out into several fields and searched carefully, eventually found plenty of plants with mild mottling symptoms on the newer leaves. Some plants had more severe symptoms but none so far have the oak leaf symptom. One grower told us that there were no symptoms at all a week ago,

I had taken an Agdia immunostrip kit for CMV with me to the field and all of the samples with the leaf mottling symptom, as well as the fruit with the brown discoloration, were positive. Jalapenos in a nearby field also tested positive for CMV.

Other Diseases

Phytophthora is running wild in a lot of crops. I even found it in green beans yesterday in Fremont and buckeye rot on tomatoes is the worst I have ever seen.

Buckeye Rot (Phytophthora spp., including *P. capsici*)

Buckeye rot caused by the pathogen *Phytophthora* spp. can become a major problem in processing and fresh market tomato production during periods of heavy rainfall which lead to saturated soils. The pathogen can infect developing green tomatoes which are sitting in free water or on saturated soils causing them to rot. Infected tomatoes will develop concentric tan/brown lesions

We are also seeing angular leaf spot on cukes, squash, etc.

Angular Leaf Spot. First symptoms of the disease are water soaked lesions on the pumpkin leaves.

Close up view of upper (left) and lower (right) surface of the leaf on pumpkins. The lesions expand until they are limited by leaf veins which causes them to take on an angular shape. The water soaked areas become light tan to white in color, dry out and fall out of the leaf leaving an angular shot hole in the foliage

Angular leaf spot of pumpkin. Typical symptoms with shotholes developing.

Microdochium Blight Found on Pumpkins by L. Rhodes and R. Precheur

Microdochium (or Plectosporium) blight, also called White Speck, on petiole (left) and stem and petiole (center) and on green and orange fruit (right).

Microdochium Blight: All parts of the pumpkin plant maybe affected. Spindle shaped, tan to white lesions less than 1/4 inch in length develop on stems, leaf veins, petioles and peduncles. Stem and petiole lesions can result in death of attached leaves and defoliation can occur in severe infections. Individual lesions on pumpkin fruit are quite small, but usually coalesce to form white to tan roughened areas on the upper fruit surface. Fruit symptoms may resemble mite infestations. Mancozeb fungicide is recommended for control of this disease.

(Disease symptom description from: "Identification and Management of Pumpkin Diseases" By Richard Latin and Karen Rane, Dept. of Botany and Plant Pathology, Purdue University. <http://www.agcom.purdue.edu/AgCom/Pubs/menu.html>)

Crop Reports

Southeast Ohio 8/10/05 by Hal Kneen

Rain continues to avoid growers' fields, irrigated fields are the only fields left in production except for pumpkins. Pumpkin size is sure to be affected if rain doesn't come soon. Several tomato growers discontinued harvest due to low market price and higher costs of harvest. Growers with later tomato plantings are hoping for a rebound in the price of tomatoes. sweet corn continues to hold price at a wholesale level if worm free.

Insect trap counts through August 9th. 2005

No European Corn Borer in either helio trap continues a trend noticed last year.

Corn earworm caught 9 moths

beet army worm - caught only 8 moths, appreciable lower counts than last week.

More interest in irrigation, black plastic, fertigation and yield. Growers commented on good local sales to farm markets and grocery stores. Perhaps more drop ship efforts to farm markets next year.

New Bt Publications

From Brent Rowell at UKY detailing the release of two new Bt bulletins for veg crops. The pdf's need to be read in Adobe 6 or higher, my old 4.0 wouldn't open them.

We have two new publications on the use of Bt in vegetable crops which we hope will be useful to other vegetable IPM programs. One is fairly comprehensive and was designed for extension agents, scouts, and advisors (ID156) while a simpler, short version (ID156a) was intended more for growers.

The pdf files can also be found at: <http://www.ca.uky.edu/agc/pubs/pubs.htm>

The easiest way to find them here is to click on Author search, then type in my name Brent Rowell