



The Ohio State University Extension Vegetable Crops

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Emergency Issue!

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Downy Mildew Confirmed in Wayne and Medina Counties - *Sally Miller, Department of Plant Pathology*

Downy mildew was confirmed in cucumbers in Wayne and Medina counties in Ohio on July 3. Northern Ohio cucumber and melon growers should commence preventative fungicide programs if not already started. See recommendations below.

SUGGESTED DOWNY MILDEW MANAGEMENT PROGRAMS FOR CUCUMBERS AND MELONS:

Fungicide application:

Protection before disease appears: Apply one of the following fungicides on a 7-10 day schedule, tank mixed with Bravo, Manzate or Dithane: Presidio, Ranman, Previcur Flex, Tanos, Curzate or Gavel (Gavel already contains mancozeb). Alternate products. The application interval can be lengthened under dry conditions. Use the shorter interval under cool, moist conditions.

Management after disease appears: Apply one of the following

fungicides on a 5-7 day schedule, tank mixed with Bravo or Dithane: Presidio, Ranman, Previcur Flex, or Tanos. Alternate products. The application interval can be lengthened under dry conditions. Use the shorter interval under cool, moist conditions. See product labels for fungicide rates.

Always tank mix targeted fungicides with a protectant fungicide and alternate targeted fungicides with different modes of action (see FRAC Codes below). Note that the fungicides recommended above have different pre-harvest intervals (PHI). Keep this in mind when fungicides are applied after harvesting begins.

Product	PHI (days)	FRAC Code	Comments
Chlorothalanyl e.g. Bravo Weather Stik	0	M5	Protectant; tank mix with targeted fungicides below
Mancozeb e.g. Dithane or Manzate	5	M3	Protectant; tank mix with targeted fungicides below
Ranman	0	21	
Previcur Flex	2	28	Reduced activity suspected in some Ohio counties
Tanos	3	11 + 27	Up to 2 days curative activity but low residual (3-5 days)
Gavel	5	22	Contains mancozeb; see label for worker safety requirements
Presidio	2	43	Possible resistance in CDM populations in Eastern US but not documented in

			Midwest
Curzate	3	27	Up to 2 days curative activity but low residual (3-5 days)
Zampro	0	40 + 45	No Ohio data; moderate to low efficacy on cucumber in Eastern US

Spotted Wing Drosophila Detected – *Jim Jasinski, OSU Extension IPM Program, Celeste Welty, Dept. of Entomology*

Spotted wing drosophila (SWD) flies were detected in apple cider vinegar baited traps at two berry farms on July 3rd, in Clinton and Greene counties. This new species and its relatives are commonly called fruit flies or vinegar flies. This new invasive pest was first found in OH in September 2011 and was found at several Ohio sites in August 2012. Unlike the common fruit fly that is found on over-ripe fruit, the new species attacks **ripening** fruit of most berry crops such as raspberries, blueberries, blackberries, grapes, cherries, strawberries, as well as peaches and apples. Berries infested with SWD will begin to break down and mold within a few days.

To detect this fly we have deployed a network of apple cider vinegar baited traps in seven locations across the state in berry crops. To date these are the first SWD reported in 2013.

The threshold for SWD is one fly, meaning once a SWD is confirmed at a location, all susceptible ripening crops should be protected using an insecticide spray weekly through final harvest. Various insecticide options are listed on page 2 of the [general Ohio SWD fact sheet posted at this link on the internet](#). Other management options are sanitation by trying to remove old or dropped berries and mechanical control by row covers or screening. Because the threshold is so low, early detection is essential. There are two methods to detect SWD: using an apple cider vinegar baited trap to detect the adults, and using a salt test to detect the larvae (maggots) in the fruit

itself. Methods are outlined at the links posted here for assembling the [baited traps](#) to detect adults and here for using the [salt test](#) to detect larvae. If growers want to determine if SWD larvae are in the fruit, then using of the salt test is the easiest way to detect this pest, as the tiny maggots will leave the fruit and float to the top of the bag or tray.

Growers should be aware that if an apple cider vinegar trap is put up on a farm, it will catch various kinds of fruit flies; this means that the samples will have to be sorted to properly identify **WHETHER OR NOT** the SWD is in the sample or not. These flies are very small and must be examined carefully to identify them. The males can readily be detected by the “spot” on their wing which is visible to the naked eye, but it takes a very high power hand lens (30x) or a dissecting microscope to identify the female SWD with her heavily serrated ovipositor; the female does not have spots on the wings. In other words, just because fruit flies or vinegar flies are in the trap does not mean you should begin spraying!

Disclaimer Information presented above and where trade names are used, they are supplied with the understanding that 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 responsibility of consulting the pesticide label and adhering to those directions. Ohio State University Extension embraces human diversity and is committed to ensuring that all research and related educational programs are available to clientele on a nondiscriminatory basis without regard to race, color, religion, sex, age, national origin, sexual orientation, gender identity or expression, disability, or veteran status. This statement is in accordance with United States Civil Rights Laws and the USDA. Keith L. Smith, Associate Vice President for Agricultural Administration; Associate Dean, College of Food, Agricultural, and Environmental Sciences; Director, Ohio State University Extension and Gist Chair in Extension Education and Leadership. TDD No. 800-589-8292 (Ohio only) or 614-292-1868.