



## **The Ohio State University Extension Vegetable Crops**

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### **Northern Ohio Crop Report** – *Matt Hofelich, OARDC Vegetable and Muck Crops Manager*

Many areas of northern Ohio over the last month have experienced excessive rainfall events which have included hail and strong winds. Here at the North Central Station during the period of June 25 to July 22 we received just over 15 inches of rainfall in a 28 day period. Poor quality and crop losses across northern, Ohio have been significant in many areas. Crops affected include tomatoes, cabbage, peppers, all cucumber types, summer and winter squash, greens, radish, and sweet corn. The area affected ranges from the Indiana line to the north central region around Celeryville, Ohio. Concerning labor, many growers again this season are experiencing a shortage of workers needed to harvest crops, additionally some labor has left due to weather and the condition of crops. With the excessive rains diseases have been prevalent this season and adding to grower frustrations. Diseases identified include bacterial spot, bacterial speck, phytophthora, phythium, and downy mildew. The extended forecast indicates that the area is getting back into a normal weather pattern which should be beneficial to crops. Below is an estimate of projected crop loss in Northern Ohio by USDA and Extension Educators and specialists due to excessive rains.

Tomatoes 20-25%

Cabbage Fresh Market 30-35%

Cabbage Processing 30-35%  
Cucumbers 30-35%  
Pumpkins & Squash 40-45%  
Field Corn 18-20%  
Soybeans 30-35%”

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**Potato and Tomato Late Blight Update** - *Sally Miller, Department of Plant Pathology*

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**Late blight was confirmed on July 30, 2013, on potatoes in Wayne County, OH.** This is our first report on potatoes in Ohio. We have also had reports of late blight on tomatoes from several home gardens in Wayne County in the last few days. Growers are urged to maintain an effective fungicide program on tomatoes and potatoes. The cool conditions are conducive to late blight, and more rain is expected in many areas this week. See VegNet July 17, 2013 for details on fungicide recommendations. Samples of tomatoes with late blight were sent to Cornell University for analysis last week and the strain of *Phytophthora infestans* isolated was US-23. This strain has been sensitive to mefenoxam (Ridomil) in the past. We will send potato samples for analysis this week. I will tweet the results as soon as I get them @OhioVeggieDoc.

I talked about what organic growers and home gardeners can do to try to get ahead of late blight last week (July 24 VegNet). Drs. Tom Zitter and Martha Mutschler-Chu of Cornell University have provided more information on resistance to late blight and other foliar diseases of tomatoes (for next year, alas)

(<http://vegetablemdonline.ppath.cornell.edu/NewsArticles/tomato%20growers%20need%20to%20know%20Apr%202013.pdf>). Table 1 from that article describing the varieties available is shown below. The three big defoliating diseases to which they refer are late blight (LB), early blight (EB) and Septoria leaf spot (SLS):

**Table 1: Tomato cultivars combining genetic control for 2 or more foliar diseases**

Tomato cultivars by type with other Resistance <sup>1</sup>	Control for the big 3 defoliating diseases				Seed Available from:
<b>Slicers – Determinate</b>	LB	EB	SLS	What to expect	-
Mountain Merit (F1) F3, N, TSWV, V	Heteroz <i>Ph2</i> , <i>Ph3</i>	Heteroz EBT	Susceptible	Excellent control of LB; <u>but</u> EB and SLS may require sprays	Bejo, Johnny's, Seedway
Defiant PHR (F1) F2, V	Heteroz <i>Ph2</i> , <i>Ph3</i>	Heteroz EBT	Susceptible	LB will be contained till end of season; <u>but</u> EB and SLS require attention	Johnny's, Stokes
Iron Lady (F1) F2, V	Homoz <i>Ph2</i> , <i>Ph3</i>	Homoz EBT	Heterozygous SLS-R	Provides the highest level of control for all 3	High Mowing
<b>Campari - Indeterminate</b>	-	-	-	-	-
Mountain Magic (F1) F3, V	Heteroz <i>Ph2</i> , <i>Ph3</i>	Heteroz EBT	Susceptible	LB will be contained until end of season; <u>but</u> EB and SLS require some attention	Johnny's, Totally Tomatoes, etc.
<b>Fresh Market Plum - Determinate</b>					
Plum Regal (F1) F2, V, TSWV	Homoz <i>Ph3</i>	Homoz EBT	Susceptible	Mild LB will occur; <u>but</u> SLS will require attention	Johnny's, Seedway, Totally Tomatoes

<sup>1</sup>Resistance key: **F** = Fusarium wilt, F, F2, F3 (indicating number of races); **V** = Verticillium wilt; **N** = Nematode; **TSWV** = Tomato spotted wilt virus.

## Onion Anthracnose – New to Ohio *Sally Miller, Department of Plant Pathology*

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Severe outbreaks of anthracnose were found on dry onions in northern Ohio during July, following a period of excessive rainfall and high temperatures. This is generally considered a tropical/sub-tropical disease and we have not encountered it in the past in this state. Symptoms are oval lesions, yellowing

and death of leaves. The lesions contain tiny black structures of the fungus that causes the disease. Large amounts of fungal spores that spread the disease are produced in the lesions. See the photos below.

This disease can be treated with the protectant fungicides mancozeb (e.g. Dithane or Manzate) or chlorothalanil (Bravo, Equus, Echo etc). The strobilurin fungicides Quadris and Cabrio are also effective, but must be used in a rotation with a protectant to prevent development of fungicide resistance.



Anthracnose lesion in field.

Close-up of anthracnose lesions in lab.

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

This small vinegar fly is mostly a pest of fruit (raspberries, blackberries, blueberries, cherries, grapes, etc.) but can also attack tomatoes later in the season. Since many growers who subscribe to VegNet have diversified vegetable and fruit operations, it bears updating the activity of this pest.

To date we have detected SWD in either apple cider vinegar baited traps or in fruit samples in Clinton, Greene, Clark, Portage, Warren, and Wayne counties. Nearby crops include cherries, raspberries, blackberries, blueberries, and grapes.

Fruit that is ripening in the presence of SWD is at risk of oviposition and damage. It is important to remember this pest attacks healthy berries, not decaying fruit like other vinegar flies. Growers can either set up their own apple cider vinegar trap to detect this pest (requires a high powered hand lens or microscope to correctly identify male and female SWD) or collect ripe fruit and perform a salt test to see if any SWD larvae can be floated out of the fruit. **If using the baited trap to catch adults, please note there are many kinds of vinegar flies in Ohio, therefore just catching flies does not mean you have SWD!**

If you want to hang a apple cider vinegar baited trap or use the salt test to look for larvae in fruit, please consult these fact sheets under the “Spotted Wing Drosophila” heading for proper trap set up and salt test protocol ([http://bugs.osu.edu/welty/fruit\\_info1/Fruit\\_info.html](http://bugs.osu.edu/welty/fruit_info1/Fruit_info.html)).

If you think you have SWD, please let Celeste Welty ([Welty.1@osu.edu](mailto:Welty.1@osu.edu)) or Jim Jasinski ([jasinski.4@osu.edu](mailto:jasinski.4@osu.edu)) know.

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### **Ask Us ??**

Do you have a pest management or production issue that you would like addressed in future VegNet issues? If so let us know. Email your suggestion to Jim Jasinski, [jasinski.4@osu.edu](mailto:jasinski.4@osu.edu).

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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.