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## PENNSYLVANIA WEEKLY VEGETABLE DISEASE UPDATE

JULY 8, 2008

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**NOTE:** This is the second in a series of weekly disease updates that will be made over the remainder of the 2008 growing season. Please feel free to contact me at 814-865-7328 or [bkgugino@psu.edu](mailto:bkgugino@psu.edu) if you have any questions, concerns or suggestions. Please feel free to include this information in your various newsletters and outreach programming.

### **DOWNY MILDEW CONFIRMED ON CUCUMBER IN ONTARIO, CANADA: TIME TO BE VIGILANT IN PENNSYLVANIA**

This past week, the weather patterns were conducive for the repeated movement of downy mildew spores up the east coast. Two new sources were identified in South Carolina. The one source was in a 45 acre cucurbit field and is being considered a significant source of inoculum due to the size of the field and leaf symptom severity. Downy mildew was also identified even closer to home in three counties (Niagara, Erie and Ontario) in New York. One was a small commercial cucumber field and we are still waiting on the details of the other two confirmed reports. As of today, there are no confirmed cases of downy mildew on cucurbits in Pennsylvania.

Cucurbit production is close to wrapping up in Florida so a number of fields with active downy mildew have been harvested and destroyed therefore they are no longer producing spores that could be moved up the east coast. The forecasted weather conditions for this week indicate another active week for the movement of downy mildew. Remember that there is a 5 to 7 day latent (waiting) period between when the spores land on the plant and the development of visible symptoms. As of July 8<sup>th</sup>, the most recent cucurbit downy mildew forecast indicates that Pennsylvania growers should be most concerned about the movement of downy mildew from South Carolina. It is too early to forecast the movement from the sources in New York. Please check the Cucurbit Downy Mildew Forecasting website (<http://www.ces.ncsu.edu/depts/pp/cucurbit/>) for the most up-to-date forecasts. They are updated on Mondays, Wednesdays and Fridays. Please continue to be vigilant about scouting for downy mildew and if you have not already, consider initiating a protectant fungicide spray program for your most susceptible cucurbits.

Tank mix one of the following products with a protectant such as Bravo (chlorothalonil), Dithane (mancozeb), or Maneb (maneb) for resistance management: Ranman (cyazofamid; FRAC 21), Previcur Flex (propamocarb (FRAC 28), Gavel (mancozeb and zoxamide; FRAC M3+22), Curzate or Tanos (both cymoxanil; FRAC 27). It is important to also alternate between different modes of action (FRAC codes) for resistance management.

Please report any suspect cases of downy mildew in cucurbit fields and bring or send a sample (overnight delivery) for confirmation to Beth Gugin, Department of Plant Pathology, 219

Buckhout Lab, University Park, PA 16802. We will examine the sample under a microscope and look for the characteristic downy mildew spores.

**TOMATO AND POTATO DISEASE UPDATE AS OF JULY 8<sup>TH</sup> 2008**

To my knowledge, to-date there have been no reports of tomato early blight or late blight on tomatoes or potatoes in Pennsylvania or the surrounding region. There was one positive report for a field in New Brunswick (from Abby Seaman, Cornell – IPM). Historically according to Barb Christ (Penn State), potato early blight inoculum is typically present in the field around July 4<sup>th</sup>. For earlier planted cultivars this can coincide with the transition of the crop from flowering to tuber formation; a more susceptible stage in the phenology of the crop.

Below are the spray recommendations for managing LATE BLIGHT as determined on July 8<sup>th</sup> using the BLITECAST forecaster for 19 locations across the state of Pennsylvania (thanks to Ellen Hay – Penn State). These suggestions are run using site specific SKYBIT weather data provided by ZedX (Bellefonte, PA) and are based on the assumption that late blight inoculum is nearby.

<b>Town</b>	<b>County</b>	<b>7 day rainfall total (1 to 8 July)</b>	<b>Blightcast spray message*</b>
Fairview	Erie	0.22	Spray if none July 3
Corry	Erie	0.97	since..... July 3
Sweden Valley	Potter	0.73	July 3
Butler	Butler	0.44	July 3
Finleyville	Washington	0.30	July 3
Loretto	Cambria	3.01	July 3
Rock Springs	Centre	0.25	July 3
Jersey Shore	Lycoming	0.74	July 3
Montandon	Northumberland	0.65	July 3
Clarks Summit	Lackawanna	0.03	July 3
Wyoming Valley	Luzerne	0.37	July 3
Germansville	Lehigh	1.30	July 3
Kutztown	Berks	1.24	July 3
Ringtown	Schuylkill	0.52	July 3
Gratz	Dauphin	0.94	July 3
Maddensville	Huntingdon	3.04	July 3
Waynesboro	Franklin	1.04	July 3
Leola	Lancaster	0.58	July 3
Mt. Joy	Lancaster	0.74	July 3

\*As a general rule of thumb, if you have not applied a fungicide in the past 14 days then one needs to be applied to protect the new vegetative growth.

Within the past 7 days week, the remaining 10 counties (Butler, Lycoming, Lackawanna, Luzerne, Lehigh, Berks, Schuylkill, Dauphin, Franklin, and Lancaster) represented by the 19

locations listed above reached the 35 cumulative disease severity value threshold to initiate a fungicide spray program based on the Tom-FAST disease model for EARLY BLIGHT.

If you hear of any reports of either blight on tomato or potato in Pennsylvania or in the region, please report it to Beth Gugino at 814-865-7328 or bkgugino@psu.edu. Tomato and potato disease updates will also be updated weekly and also available via the 1-800-PENN-IPM hotline.

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Information provided is intended for consideration by the user, but is not intended to be a recommendation. Production decisions should be based on consideration of many types of information (scientific, experimental, economic, legal, etc.) available to the user.

Where trade names are used no discrimination is intended, and no endorsement by the Cooperative Extension Service is implied.