
PENNSYLVANIA WEEKLY VEGETABLE DISEASE UPDATE

JULY 1, 2008

BETH K. GUGINO

PENN STATE VEGETABLE PATHOLOGIST

NOTE: This is the first of 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 if you have any questions, concerns or suggestions. Please feel free to include this information in your various newsletters and outreach efforts.

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

Early last week, downy mildew was confirmed in a small commercial field of slicing cucumbers south of London in Ontario, Canada. This 2008 season, all other reports of downy mildew in the Central and Eastern U.S. have been restricted to Florida, Texas, Georgia, Louisiana and South Carolina. The downy mildew pathogen does not survive the winter in cold climates therefore disease develops from either transplanting already infected plants or from the movement of spores in the wind from locations where the pathogen and disease are already present to locations where the environmental conditions favor disease development. A forecasting system has been developed to predict the movement of downy mildew across the eastern U.S. based on the forecasted weather conditions from the source across the forecasted wind trajectory. For more information visit the Cucurbit Downy Mildew Forecasting website at <http://www.ces.ncsu.edu/depts/pp/cucurbit/>.

As of July 1st, the risk of downy mildew spore movement from the source in Ontario, Canada to northwest PA is high. This means that weather conditions are favorable for the transport of spores in the wind trajectory from the infected field in Canada to susceptible cucumber fields in northwest PA and that conditions are also favorable for pathogen infection and disease development in PA. Growers need to be vigilant about scouting for downy mildew and initiate a protectant fungicide spray program for cucumbers, the most susceptible of the cucurbits to downy mildew. 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 Gugino, 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 1ST 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. Historically according to Barb Christ (Penn State), potato early blight inoculum is typically present in the field around July 4th. 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 1st using the BLITECAST forecaster for 19 locations across the state of Pennsylvania (thanks to Ellen Hay). 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.

Town	County	7 day rainfall total (24 to 30 June)	Blightcast spray message*
Fairview	Erie	0.42	Spray if none June 21
Corry	Erie	2.72	since..... June 26
Sweden Valley	Potter	2.60	June 26
Butler	Butler	1.94	June 26
Finleyville	Washington	1.17	June 26
Loretto	Cambria	0.73	June 26
Rock Springs	Centre	0.23	June 26
Jersey Shore	Lycoming	1.64	June 26
Montandon	Northumberland	0.88	June 26
Clarks Summit	Lackawanna	0.02	June 26
Wyoming Valley	Luzerne	1.32	June 26
Germansville	Lehigh	1.48	June 26
Kutztown	Berks	1.10	June 26
Ringtown	Schuylkill	0.13	June 10
Gratz	Dauphin	1.62	June 26
Maddensville	Huntingdon	0.74	June 26
Waynesboro	Franklin	2.53	June 26
Leola	Lancaster	1.63	June 26
Mt. Joy	Lancaster	0.86	June 26

*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 three days, Erie, Potter, Washington, Cambria, Centre, Northumberland, and Huntingdon Counties have reached the 35 cumulative disease severity value threshold to initiate a fungicide spray program based on the 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.

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.