Vegetable Crop Update

A newsletter for commercial potato and vegetable growers prepared by the University of Wisconsin-Madison vegetable research and extension specialists

Disease Supplement No. 2 – June 28, 2013

Vegetable Disease Update – Amanda J. Gevens, Assistant Professor & Extension Vegetable Plant Pathologist, UW-Madison, Dept. of Plant Pathology, 608-890-3072 (office), Email: gevens@wisc.edu. Vegetable Path Webpage: http://www.plantpath.wisc.edu/wivegdis/

Late blight has been detected on potato in Adams County Wisconsin. We have not yet characterized the strain, but will be working on this over the next few days. Most late blight identified in the U.S. this year has been of the US-23 clonal lineage and I would suspect this is the type collected in Adams County just today. At this time, with the wet weather, it is critical that preventative fungicide applications are made to protect susceptible tomato and potato crops from late blight. A shortened 5-7 day spray interval is recommended. A second file listing registered fungicides for potato late blight in Wisconsin is included as a companion to this newsletter (& will be accessible at Veg Path website above).

Clonal lineage	Mating type	Optimum growth temp	Host comments	Years found in WI	Resistance to mefenoxam
US-22	A2	24ºC	Tomato and potato, poor pathogen on pepper, eggplant, tomatillo	2009, 2010	Sensitive
US-23	**A1**	**18ºC**	**Tomato and potato**	**2010, 2011, 2012**	**Intermediately resistant**
US-24	A1	20ºC	potato	2010, 2011	Intermediately resistant esistant (variability among isolates)

Nationally, there has been a recent report of late blight in the U.S. in NJ on tomato. This Disease Supplement serves to make growers aware that late blight has been identified in Wisconsin and preventative fungicide application is recommended for producers of susceptible potato crops at all crop stages. The website: http://www.usablight.org/ indicates location of positive reports of late blight in the U.S. and provides further information on disease characteristics and management. Additional, specific fungicide recommendations will soon be provided through this newsletter for tomato and organics.

In order to help better understand the epidemic at hand, please submit samples to my lab or work through your county agent and request that they send to me for genotyping. All we need to know is the county of sample origin, we do not need to have specific field or grower information associated with the sample. Identification of genotype at the county level would be very helpful in improving our understanding of this epidemic and potential future risks. Lab address is: Amanda Gevens, 1630 Linden Dr, Room 689, Plant Pathology Dept., University of Wisconsin, Madison, WI 53706. Please send infected leaves in a slightly inflated ziplock bag with no paper towel. Overnight shipping is best.

Further information on late blight and its management can be found in the Vegetable Crop Updates newsletters archived at the University of Wisconsin Vegetable Pathology Website. Also, fact sheets on late blight are available under the "Late Blight" tab at the website.

Further details on registered fungicides for WI vegetables can be found in the Wisconsin Commercial Vegetable Production Guide A3422, http://learningstore.uwex.edu/assets/pdfs/A3422.PDF.

Comparison of Late Blight Fungicides (highest rates registered)
Provided by Dr. Steve Johnson, University of Maine Cooperative Extension

In addition to the products listed below in table, others may be available and effective; not a comprehensive list.

	Effectiveness				Mode of action							
Product	**Leaf blight**	**New growth**	**Stem blight**	**Tuber blight**	**Protectant**	**Curative**	**Anti-sporulant**	**Rainfastness**	**Mobility in the plant**	**FRAC #**	**REI**	**PHI**
Bravo etc	G	No	P	No	G	No	No	G	contact	M5	12 hrs	7 days
Curzate + Dithane etc	G	?	F	No	G	E	P	G	translaminar + contact	27 + M3	24 hrs	14 days
Dithane etc	G	No	P	No	G	No	No	F	contact	M3	24 hrs	3 days
Forum + Dithane	G	?	F	F	G	P	G	G	translaminar + contact	40 + M3	24 hrs	4 days
Gavel	E	No	P	F	E	No	No	G	contact + contact	22	48 hrs	3 days
Kocide etc	P	No	P	No	F	No	No	P	contact	M1	24 hrs	0 days
Omega	E	No	P	G	E	No	No	G	contact	29	48 hrs	14 days
Previcur Flex + Dithane etc	G	G	G	No	G	G	G	E	systemic + contact	28 + M3	24 hrs	14 days
Ranman	E	No	P	E	E	No	No	E	contact	21	12 hrs	7 days
Tanos	G	?	F	No	G	E	P	G	translaminar + contact	11	12 hrs	14 days
Revus Top	E	?	F	G	E	P	F	E	translaminar + contact	40 + 3	12 hrs	14 days
Tin	E	No	E	E	G	No	E	F	contact	M1	48 hrs	7 days
No=No effect; P=Poor; F=Fair; G=Good; E=Excellent; ?=Unknown.												