Vegetable Crop Update - #14
August 21, 2008

The vegetable crop update is archived on the Wisconsin Crop Manager website at: http://ipcm.wisc.edu/wcm/. We welcome your input and suggestions.

Important Dates: Potato disease management evaluation, Hancock ARS, August 27, 10-noon
Haltvick Meeting, West Madison ARS – August 9, 12-3:00

Potato and Vegetable Crop Update 8-21-2008– Alvin J. Bussan, UW-Madison, Department of Horticulture, 608-262-3519, cell 608-225-6842 or e-mail ajbussan@wisc.edu
The PAA in Buffalo was a successful meeting with lots of discussion about field and storage management of potato. The weather has been moderate with warm days and fairly cool nights. Many crops are now maturing rapidly with quality and yields varying widely across the state.

Potatoes. The potato crop has changed dramatically over the past 5 to 10 days with plants appearing to mature and senesce rather quickly for short and intermediate season varieties. I think the heat help to push some of these crops over the edge. CO 8 Russet Norkotah vines continue to hang on in some trials, whereas W2683 remains relatively healthy. Russet Burbank, Umatilla, Premier, Freedom, and especially Bannock Russet vines have nearly full canopies where early dying and early blight management has been effective. FL1867 are completely senesced, but FL1879, Snowden, White Pearl, and MegaChip are now beginning to senesce. W2133 still has a full and healthy canopy.

Tuber bulking continues in many of these crops. August 31 is a critical date with most crops continuing to bulk up until that date. There are a few exceptions such as Bannock Russet which repeatedly bulks well into September under Wisconsin production systems. White Pearl, Snowden, and other chipping lines have 85 to 90% of tubers over 2" in size. We have seen few tubers in plots (12" in-row spacing) over 4" diameter at this point. Russet Burbank tubers have a wide range in size with 25 to 30% of tubers under 4-6 oz (corresponds to over 75% of the crop 4 oz or larger). The Russet Burbank plants I evaluated had an average set of 16 tubers/plant so hopefully late bulking helps improve yield and size of the crop.

Vegetable Insect Update 8-21-2008 – Russell L. Groves, Vegetable Entomologist, Applied Insect Ecologist, UW-Madison, Department of Entomology, 608-262-3229 (office), (608) 698-2434 (cell), or e-mail: groves@entomology.wisc.edu.

Corn earworm – Flight activity continued again this week with significant captures in several locations throughout south-central Wisconsin. Foliar applications should be initiated, if not continued, to avoid direct feeding damage by early instar larvae as egg deposition should still be underway. Counts remained quite high around the Madison area and continued to increase in areas of west-central Wisconsin. Forecast warm temperatures for later in the week and into the weekend continue to elevate the risk of infestation and the potential for northward moving populations. As outlined in **A3422**, ***Commercial Vegetable Production in Wisconsin***, chemical treatments are recommended when counts of 5-10 moths are registered in 3 consecutive nights and should be applied every 2-5 days (or every 100 degree days) until the silks turn brown. Continued captures over the past week have exceeded this threshold at several locations and treatments should continue on silking sweet corn.

European corn borer – Adult moths continue to be captured in black light traps over the last week. Treatments for this second generation should continue to be considered on susceptible vegetable crops including later planted snap beans in flowering or pin-bean stages, flowering to early fruit set on peppers, and silking sweet corn. Chemical treatments targeting early larvae hatching from recently laid eggs must be

applied during the period after egg hatch and before larvae bore into the vulnerable fruit which is expected to occur between 1,500 and 2,100 DD's. The current degree day accumulations indicate that peak periods of flight reach up to north central Wisconsin.

Soybean aphid - Soybean aphid surveys continue to illustrate that aphids are present in many locations of the state, but were identified as below economic thresholds for treatment in > 90% of the fields examined. Conversely, counts which exceeded the established threshold of 250 or more aphids per plant were documented on < 10% of the sites, and these sites were located in central and northwest districts of the state. Economic thresholds for this insect as a competent vector of non-persistent plant viruses have not been documented in any crop. With continued population persistence in soybean and captures in the Soybean Aphid Suction Trap Network, the risk of virus movement and transmission continues to be a threat to susceptible vegetable crops.

Vegetable Disease Update 8-21-2008 - W. R. Stevenson, Department of Plant Pathology, UW-Madison, Tel. No. 608-262-6291, Email: wrs@plantpath.wisc.edu

Potatoes – Time is marching on and still no symptoms of late blight in Wisconsin. Conditions continue to be favorable for late blight development with severity values roughly 20-40 units ahead of this date last year. Our season has been characterized by long periods of leaf wetness, high relative humidity and cool temperatures, all favorable for late blight development. It's interesting to note that late blight has now appeared in many production areas across the U.S. indicating that late blight has not disappeared from the national potato scene and further strengthening the argument for planting clean seed, destroying cull piles and practicing a solid management program.

Early blight continues to progress in untreated test plots at Hancock and in some grower fields planted with early maturing varieties. When I compare P-Day totals for this year with the same date last year, surprisingly we are a bit ahead of last year. This helps to explain why the pressure from early blight is a bit higher than last year. Many of our treatment programs at Hancock continue to provide exceptional control of early blight. Our last of nine weekly treatments will be applied this Wednesday. I'll be in the fungicide trials at Hancock next Wednesday on August 27 (10 to noon and beyond if necessary) to show interested parties through these experiments. Cost effective control producing high yields of quality tubers is the overall goal of this trial. Current data are now up on our website for review. (http://www.plantpath.wisc.edu/wivegdis/ - See field trial progress report section)

Current P-Day (Early Blight) and Severity Value (Late Blight) Accumulations

	Planted:	50% EMERGENCE	P-Days	Severity Values	Calculation Date
Antigo area	Early - May 7	June 4	**570**	**54**	August 18
	Mid - May 15	June 11	**509**	**38**	August 18
	Late – May 23	June 18	**461**	**28**	August 18
Grand Marsh area	Early - Apr 20	May 23	**669**	**89**	August 18
	Mid - Apr 29	May 28	**640**	**89**	August 18
	Late - May 5	June 2	**608**	**89**	August 18
Hancock area	Early - Apr 16	May 10	**730**	**54**	August 18
	Mid - Apr 23	May 16	**703**	**54**	August 18
	Late - May 2	May 23	**667**	**54**	August 18
Plover area	Early - Apr 14	May 15	**720**	**76**	August 18
	Mid - Apr 22	May 23	**679**	**76**	August 18
	Late - May 3	June 1	**628**	**74**	August 18
Spooner	Apr 30	June 2	**599**	**21**	August 18
	May 5	June 9	**549**	**20**	August 18

Visit our web site at **(http://www.plantpath.wisc.edu/wivegdis/index.htm)** where you can find updated P-Day and Severity Value information throughout the growing season.

Other Vegetable Crops:

Cucurbits: We've still not observed symptoms of **downy** mildew on cucumbers or pumpkins this year. The disease is becoming a widespread problem in states to our east. Signs and symptoms of **powdery** mildew have been showing up in Wisconsin for the last two weeks, but if fungicide sprays haven't been started yet for the disease in fields with widespread disease, it's likely too late to have much of an impact. Keep a close eye on differences in disease development across the varieties grown on your farm. Breeders continue to make excellent progress in breeding for disease resistance, thereby reducing the need for fungicide treatments.

Tomatoes: I've noticed an unusual amount of early blight and Septoria leaf blight on tomatoes this year, likely a reflection of advancing plant maturity and abundant splashing rainfall. There's a long list of effective fungicides available for managing these diseases. Coverage is critical, especially on the lower leaves. Remember to check on reentry times and PHI's when applying fungicides to this crop. Septoria does not directly affect the fruit, but premature defoliation can lead to sunburning of ripening fruit.

Snap Beans: Cool nights and warm days often lead to heavy dews and extended periods of foliage wetting. This coupled with rainfall and irrigation to wet the soil can provide the perfect opportunity for the development of white mold. Field and disease history plays a big role in the decision to treat with a fungicide during the bloom period. Combining the application of the biological Contans applied prior to planting with the application of fungicide during bloom in fields with a high risk of white mold can provide effective management of this troublesome disease.