

**Vegetable Crop Update - #13**  
**August 14, 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.

**Potato and Vegetable Crop Update 8-14-2008**– Alvin J. Bussan, UW-Madison, Department of Horticulture, 608-262-3519, cell 608-225-6842 or e-mail [ajbussan@wisc.edu](mailto:ajbussan@wisc.edu)

Hello from Buffalo, where I am attending the Potato Association of America meetings this week. So far it has rained every day so it makes Wisconsin seem a little drier in comparison. Weather has been relatively mild and ET's low as a result.

**Potato.** Based on the data reported, it seems the above portion of the crop is still relatively healthy for the most part. This is critical to promote continued bulking throughout the next 2 to 3 weeks to optimize yields and size of tubers. Mike Drilias did indicate that the standard Russet Norkotah has completely senesced and is done bulking, whereas the line 8's vines continue to hang on. FL1867 has also begun to show signs of vine senescence, but all other vines are relatively healthy suggested good bulking for at least the short term.

We have begun to sample and monitor for chemical maturity in chipping and russet potatoes to get an idea of current crop status. In the process we will begin monitoring dry matter content, sugars, and tuber size profiles that we should be able to share in a week. We did apply vine killer in one trial to make sure we have the opportunity to monitor chemically immature potatoes in storage this winter.

I sent out some information to the e-mail list serve last week making everyone aware of the current review of all soil fumigants by EPA. If you would like more information please call or e-mail me and I will send you a copy.

**Processing vegetables.** I hope you all had the opportunity to stop by the Hancock Agricultural Research Station and other breeding company plots across Central Wisconsin to take in the bean and sweet corn demonstration plots.

**Vegetable Insect Update 8-14-2008** – 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](mailto:groves@entomology.wisc.edu).

Since our last submission, a continued flight of alate (winged) **soybean aphids** has taken place. Although the magnitude of these captures has been considerably less than numbers captured in past years, the impact of these flights is now developing. Specifically, significant increases in the incidence of (presumably) **Cucumber mosaic virus (CMV)** was observed among different pepper field locations in the central sands. Symptoms of the viral disease include general chlorosis (yellowing of the foliage), circular, necrotic lesions on leaves, veinal necrosis, and finally leaf drop in the more adversely affected plants. Estimated incidence in recently affected fields ranged from 10-35% and symptoms of the disease have reportedly developed in less than 7 days, indicating that the transmission events which lead to symptom development likely occurred around 1 August. Recall that CMV can cause significant losses in other vine crops as well as snap beans.

Records of current season flights of soybean aphids are available through the North Central Region's, Aphid Suction Trap Network (<http://www.ncipmc.org/traps/>). Although reported flight data is nearly 10-12 days old by the time it is posted to the site, this information provides valuable information to pest management practitioners with respect to the timing of first flights and the area-wide scale of flights. For example, we continue to see rapidly building populations of soybean aphids in many field locations throughout the state and the risk of continued flights, and even increased numbers over what we have already experienced so far

this season, is a very real possibility. Some density estimates in highly infested fields in Dodge County, Wisconsin, are as high as 3,000 to 4,000 aphids per plant. This phenomenon appears to be occurring across southern Minnesota where numbers captured in traps located at Rosemont and Lamberton, MN have jumped to 880 and 381 winged soybean aphids, respectively in the last 2 weeks.

For cucurbit, snap bean, pepper, and potato growers, the current flights combined with the potential for a continued (or second and perhaps greater) flight, pose a significant risk for continued transmission of plant viruses including CMV and Potato virus Y (PVY) for our seed potato producers. Here again, one of the control options we continue to stress is the use of highly refined, light (white) mineral oils to interfere with aphid probing. As we emphasized last week, performance of oil applications is directly related to the extent of the spray coverage. In the case of virus control, spray application to all leaf surfaces is essential. Thorough (and continued) coverage of all leaf surfaces is crucial to lessen the risk of virus transmission. Other control options include the use of the registered insecticides, flonicamid (Beleaf<sup>®</sup> 50SG) and pymetrozine (Fulfill<sup>®</sup> 50WDG) which are compounds that cause a paralysis in insects with piecing sucking mouthparts (e.g. aphids). In a very short period after exposure to these compounds, insects will stop feeding and death eventually occurs through starvation over a period of a few days. The rapid reduction in feeding activity has been demonstrated to lead to reductions in overall virus incidence in non-persistently transmitted viruses, which includes CMV, AMV, and PVY. Re-application of these compounds may be required in order to achieve effective control (virus reduction), but ensure that all label guidelines are followed.

**Corn earworm** – Increased flight activity (captures) was registered in pheromone traps over the last week. Recorded from black-light traps through the interval 31 July to 7 August, corn earworm moths escalated sharply at several south central Wisconsin trap locations, indicating the start of the primary flight. As we move into the weekend, with warmer, forecasted temperatures, the risk of infestation increases and the potential for advancing populations into central Wisconsin is also high. These trap catches included: Cottage Grove (260); Stoughton (250); Sun Prairie East (143); Madison (48); Evansville (40); Tomah B (30); Lancaster (21); Sun Prairie North (15); Cashton (8); Marshfield (4); Wausau (1); Chippewa Falls (0); Janesville (0); Sparta (0). Sweet corn producers in the south central and central counties may expect corn earworm infestations if susceptible fields are not sprayed in a timely manner. 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.

**Vegetable Disease Update 8-14-2008 - W. R. Stevenson, Department of Plant Pathology, UW-Madison, Tel. No. 608-262-6291, Email: [wrs@plantpath.wisc.edu](mailto:wrs@plantpath.wisc.edu)**

**Potatoes** – Many growers are now counting down the days until vinekill and at least for Wisconsin, there is still no late blight. I'm attending the Potato Association Meeting in Buffalo, NY this week where I learned that late blight is now distributed through the New England states and eastern Canadian provinces. Late blight is also present in an isolated field in Idaho. Other than inoculated field plots in Michigan, late blight appears to be absent in the Midwest. Conditions are ideal for late blight development throughout the northern tier of states as well as northeastern U.S. and Canada. We continue to rack up severity values here in Wisconsin indicating that the environmental conditions have been ideal for disease development, if inoculum is present. Growers still need to be scouting their fields carefully up until complete vinekill. Protectant fungicides remain the order of the day to provide protection if inoculum makes its way into the state during the last few weeks of the growing season.

Early blight continues to increase as we reach the last few weeks of the growing season. Control in commercial fields continues to be very good with the implementation of effective fungicide spray programs. Remember that I'll be in the fungicide trials at Hancock on August 27 (10 to noon and beyond if necessary) to show anyone interested through these experiments. Future control recommendations will be based on product performance in these trials and there are several programs providing exceptional control.

### 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	<b>516</b>	<b>54</b>	August 11
	Mid - May 15	June 11	<b>455</b>	<b>38</b>	August 11
	Late - May 23	June 18	<b>407</b>	<b>28</b>	August 11
Grand Marsh area	Early - Apr 20	May 23	<b>615</b>	<b>80</b>	August 11
	Mid - Apr 29	May 28	<b>586</b>	<b>80</b>	August 11
	Late - May 5	June 2	<b>555</b>	<b>80</b>	August 11
Hancock area	Early - Apr 16	May 10	<b>675</b>	<b>52</b>	August 11
	Mid - Apr 23	May 16	<b>648</b>	<b>52</b>	August 11
	Late - May 2	May 23	<b>612</b>	<b>52</b>	August 11
Plover area	Early - Apr 14	May 15	<b>665</b>	<b>73</b>	August 11
	Mid - Apr 22	May 23	<b>624</b>	<b>73</b>	August 11
	Late - May 3	June 1	<b>572</b>	<b>71</b>	August 11
Spooner	Apr 30	June 2	<b>542</b>	16	August 11
	May 5	June 9	<b>492</b>	15	August 11

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 are fortunate that downy mildew has yet to appear in Wisconsin. Many states to our east are experiencing downy mildew problems this summer with cool and wet conditions favoring outbreaks of this disease. Wisconsin growers need to stay on their toes as we get into the last few weeks of the season and cooler nights, long periods of leaf wetness from dew and fog become the norm. Powdery mildew is beginning to take hold. If you are growing one of the PM resistant pumpkin cultivars, you are likely seeing very little powdery mildew and protectant sprays for powdery mildew control are unnecessary. Susceptible cultivars can experience severe foliage loss and, to be effective, sprays need to be initiated before signs of the pathogen and symptoms appear.

**Snap Beans:** Given the amount of rain and long periods of leaf wetness that we are experiencing, I anticipate that white mold is going to be a significant problem on late planted snap beans this year. The application of the biological control Contans prior to planting has shown efficacy in past years and helps to rot away the sclerotia of the white mold pathogen. This management tool along with a single fungicide spray at flowering will help to keep white mold from becoming a yield limiting disease this year.

**Onions:** Onion acreage should be watched closely during the next few weeks. Downy mildew is being reported in Michigan and similar conditions are occurring here in Wisconsin. I've already received reports from Wisconsin growers concerning Botrytis leaf blight and purple blotch. So be alert for unusual symptoms and continue to treat with protectant fungicides up to harvest.