

Vegetable Crop Update - #10
July 24, 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: Bean Variety and Sweet Corn Hybrid Demo, Central WI - August 12-13, all day
Haltvick Meeting, Hancock ARS – July 13

Potato and Vegetable Crop Update 7-24-2008– Alvin J. Bussan, UW-Madison, Department of Horticulture, 608-262-3519, cell 608-225-6842 or e-mail ajbussan@wisc.edu

It was great to see a number of you over the past two days at the WPVGA Associate Division Golf Outing and the Hancock Ag Research Station Field Day. I hope to see more of you this afternoon at the Langlade County Field Day in Antigo.

Potato: The crop continues to progress nicely in Central WI up until this point. Cooler day and night temperatures should promote rapid tuber bulking. Early potato harvest has begun in earnest for Superiors, red, and other early season potatoes in Central Wisconsin. Yields are fair to decent with good average tuber size and good color on early reds in the sand. We continued bulking samples on Monday and had potatoes on display at the field day. The largest Russet Norkotah tubers were 8 oz in size with approximately 15% of tubers still under sized. Largest Snowden tubers are 2.5” in diameter, but average tuber size is just under 2” in diameter. One of the chipping lines we have been evaluating did have symptoms of surface scab beginning to develop this week. Russet Burbank tubers were slightly smaller than Norkotah’s with largest tubers approaching 6 oz. Premier Russet and Umatilla tubers appeared slightly smaller than Russet Burbank making one wonder if they may have a delayed tuber bulking pattern similar to Bannock.

We are fast approaching the mid way point of late bulking for a number of potato varieties. The ability to reach the yield and quality potential of this crop will depend on the relative vine health for the next 4 to 5 weeks. Standard Russet Norkotah vines have begun to senesce in our trials at Hancock, but the CO 8 line looks good in adjacent plots. Even CO 8 are showing initial symptoms of early dying in fields with high pressure or in fields of potato on potato. Russet Burbank, Bannock Russet, and many of the chipping and processing lines we are testing have relatively healthy looking vines. Petiole test numbers were low last week so we applied a final application of supplemental nitrogen. We are fast approaching 45 d pre vine kill so we will forego any further nitrogen.

I see lots of areas of fields with standing water that persist for several hours after irrigation systems have passed overhead. Heavy rains resulted in pooled water in a number of these spots as well. Some of the early dug potatoes are showing tuber infections suggesting need for concern about the storability of some of these suspect regions of the field as well. Start to map out these areas in long term storage potato fields now so you can prepare to segregate those potatoes and take steps to manage them in storage. I did not see pink eye yet, but conditions were ripe for its development last week.

Processing vegetables: Pea harvest has finished or is nearly done. I saw the beginnings of snap bean harvest this week. We have some root rot in snap bean plants in trials at Hancock, which is not surprising considering the wet growing conditions over the past several weeks. Snap beans planted 6/10-15 are pin bean stage suggesting the crop may be 4-5 days late in normal development. Sweet corn planted in early May has pollinated. Corn ear worm pressure has been heavy so we have been spraying since silking began last week. The corn crop also looks to be delayed 3-6 days relative to normal.

Vegetable Insect Update 7-24-2008 – 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.

Potato – As noted in last week's edition, 2nd generation Colorado potato beetle (CPB) adults continue to emerge from soil and again re-colonize fields. Unlike the overwintered adult beetles which emerged earlier in the year (ca. mid - late May), these are voracious feeders which will rapidly defoliate unprotected plants in a very short interval. Controlling these adults, and their generational offspring that will follow shortly thereafter, is critical in order to limit defoliation during the vulnerable bulking period in potato after flowering. Several new egg masses are starting to appear at both the Arlington (AAES) and Hancock Agricultural Experiment Stations (HAES), suggesting that early emerging, summer adult beetles have already mated and early larvae of the second generation could be expected to appear soon.

Snap Beans: Potato Leafhopper – Adult and nymph collections of potato leafhopper (PLH) continue to remain low in most field locations. This situation continues to be very unusual for mid- to late July and the explanations for the low populations may result from a combination of fewer meteorological events conducive to adult flights as well as frequent and heavy rains in the southern half of the state. In field populations of adults averaged < 1 adult / sweep at the AAES and just over one insect / plant in experimental plots at the HAES. The decision to apply insecticides for control of adults or developing nymphs should be made on a site specific basis as many fields have yet to reach established thresholds.

Cucurbits – Striped cucumber beetles continue to be a significant and serious pest so far this year in many cucurbit growing areas of the state. In addition to the direct damage caused by adult feeding, cucumber beetles are vectors of bacterial wilt pathogen caused by the bacterium, *Erwinia tracheiphila*. While foliage-feeding adult cucumber beetles can injure the crop, especially seedlings, the transmission of bacterial wilt disease is even more serious because wilt will kill the plant. Wilt symptoms have begun to develop at many locations in the state and vine removal is an important step to limit further damage. IPM practices crucial for successfully managing beetles and bacterial wilt of cucurbits include elimination of sources of bacterial wilt inoculum via clean culture and sanitation, planting tolerant or resistant varieties, and optimal application timing of reduced-risk insecticides to minimize damage to pollinators. Protecting pollinators is crucial for optimizing fruit set as up to 20 visits per flower may be necessary for good quality with uniform size. Recent declines in populations of honey bees continue to be a real threat to pollination of the crop. As we noted earlier in the year, this condition, known as Colony Collapse Disorder (CCD), has received significant scrutiny in the last several months. The proposed causes of the disorder are still numerous and unfortunately not yet well defined. As a result, proper selection and timing of insecticide applications is of renewed importance in these crops which depend on the domestic and wild pollinators. In addition, squash bugs and squash vine borer damage is now becoming evident at many sites around the state. Squash bugs feed on several vine crops but often prefer squash and pumpkin. Damage results from feeding by adults and nymphs and in unmanaged situations can cause a general wilting condition in plants. It is important to scout your fields early and often for insect pests because smaller populations containing predominantly nymphal populations are easier to kill than larger populations of adult insects.

Vegetable Disease Update 7-24-2008 - W. R. Stevenson, Department of Plant Pathology, UW-Madison, Tel. No. 608-262-6291, Email: wrs@plantpath.wisc.edu

Potatoes –

A week of field days is suddenly upon us and still no late blight has appeared in the Midwest. There was a report from Maine in the past week that potato late blight had been identified at two locations in central Aroostook County in Northern Maine. Here in Wisconsin, we continue to see conditions ideal for the development of late blight, although there have been no observations of the disease. Fields should be scouted thoroughly in the weeks ahead to be sure that if the disease is present, effective control measures can be applied immediately to minimize impact on yield and quality. All fields should be treated at least weekly with a protectant material such as maneb, mancozeb, metiram, chlorothalonil or in the case of organic acreage, fixed copper fungicides.

Early blight continues to slowly develop in untreated check plots at Hancock, but most of the fungicide programs being evaluated in the remainder of our fungicide trial continue to provide excellent control of this disease. This is a normal progression of disease as it first attacks the older and lower leaves and then progresses to the newer foliage,

unless an adequate fungicide program is in place. Control over the next two weeks is critical for successful control of early blight through the month of August.

Hail during the past two weeks is causing some concern in central WI. Our plots at Hancock were hit twice within 7 days and are showing the effects of hail damage. We've talked about this previously, but whenever hail strikes a field, the addition of fixed copper sprays to your normal fungicide program can help to reduce subsequent damage to leaves, petioles and stems by secondary invaders. Sprays should be applied within 24 hours of the damaging storm.

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	365	46	July 21
	Mid - May 15	June 11	305	30	July 21
	Late - May 23	June 18	257	20	July 21
Grand Marsh area	Early - Apr 20	May 23	454	54	July 21
	Mid - Apr 29	May 28	425	54	July 21
	Late - May 5	June 2	393	54	July 21
Hancock area	Early - Apr 16	May 10	516	42	July 21
	Mid - Apr 23	May 16	489	42	July 21
	Late - May 2	May 23	453	42	July 21
Plover area	Early - Apr 14	May 15	503	56	July 21
	Mid - Apr 22	May 23	463	56	July 21
	Late - May 3	June 1	410	54	July 21
Spooner	Apr 30	June 2	385	12	July 21
	May 5	June 9	335	11	July 21

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: There haven't been any new reports of downy mildew in the past week from midwestern or eastern states. However, with conditions favorable for development of this disease, intensive scouting of all acres in Wisconsin should continue until harvest of each field.

Snap Beans: Long periods of wet soil and foliage damp from rain, dew or fog creates an environment highly favorable for the development of white mold. This has been a prolonged wet period over the past several weeks. As plantings approach the bloom stage, each field needs to be assessed for the risk of white mold development. Knowledge of the previous cropping history and the history of white mold on susceptible crops grown in these fields helps in making a spray decision. Crops such as soybean, snap bean, lima bean, dry bean, sunflower, potato and other broad leafed vegetable crops are all susceptible to white mold. If fungicide sprays are applied to snap bean fields, the sprays are best timed to coincide with the open bloom stage.