Vegetable Crop Update - #1

May 25, 2005

This is the first newsletter of the growing season. We’ll try to update you weekly or as important information needs to be shared. We welcome your input and suggestions.

ANNOUNCEMENT

Potato Irrigation Workshop

When: Thursday June 9th, 2005 from 1:30 to 4:00
Where: Hancock Ag Research Station
Program: Description of drought and heat sensitivity in potato
Sugar end syndrome in potato
The need for irrigation scheduling as a component of water management
Relating soil moisture data to plant stress
General discussion on irrigation management

Registration: Please contact the Portage County Extension Office if you plan to attend (715-346-1316)

Potato Crop Update

Alvin J. Bussan, Potato and Vegetable Production Specialist, Department of Horticulture, UW-Madison. 608-262-3519 or 608-225-6842 or ajbussan@wisc.edu.

Spring has sprung and summer is slowly creeping into view. Dry weather during April, required some growers to irrigate fields prior to planting potatoes to ensure good soil moisture. Otherwise we had good conditions for planting and most of the potato crop is in the ground. There are a few acres of muck and seed potato that still need to be planted, but everything else is already finished. Many growers have begun to plant other crops including sweet and field corn and soybeans. Onion and carrot have emerged in may locations. We did have some freezing temperatures, but with few apparent consequences with regard to crop health or stand.

Cool temperatures have been discussed statewide as a reason for slow crop growth. Analysis of soil temperatures to date between 2004 and 2005 indicate that soil temperatures have been no cooler during 2005 than they were in 2004. GDD days were calculated based on maximum and minimum soil temperatures with a base temperature of 50 F. Similar soil temperatures resulted in similar emergence dates. Most of the varieties in my trials at HARS had emerged by May 12. The exception was Bannock Russet which typically emerges slower. No emergence issues have been experienced like we had in plots last year.

Air temperatures have in fact been slightly cooler than last year especially since June 15th. Cooler temperatures may result in slightly slower canopy development and delayed tuber initiation if they persist. However the delay may only be 4 to 7 days based on current trends.
Last year at this time we were discussing the need to side-dress with nitrogen fertilizer due to the heavy precipitation. This year has been drastically different with infrequent and only moderate precipitation events. As the crop approaches tuber initiation, irrigation may be necessary depending on the rainfall patterns and actual ET rates. Potential ET has been 0.15 or so inches per day when sunny. Irrigation should be minimal until tuber initiation to minimize potential effects of early dying, but ramped up with early bulking.

Best wishes in planting any remaining crops. We have a number of projects on different vegetable crops so we have a fair amount of planting to do as well. Next week I will discuss what breeding lines and varieties we are studying and provide more information on new variety management.

Figure 1. Cumulative growing degree day accumulation at 2 inch depth in soil during spring of 2004 and 2005 at Hancock Agricultural Research Station.

Figure 2. Cumulative ground air growing degree days during spring of 2004 and 2005 at Hancock Agricultural Research Station.
Weed Management in Red Beet
Alvin J. Bussan, Potato and Vegetable Production Specialist, and Dan Heider, IPM Specialist, Department of Horticulture, UW-Madison. 608-262-3519 or 608-225-6842 of ajbussan@wisc.edu or djheider@wisc.edu.

The section 18 request for post-emergence applications of Betanex on red beet was not approved by the EPA. Therefore, the request was withdrawn. The request was not approved due to insufficient data on efficacy of the product as well as other reasons. As a result, red beet growers must be prepared to manage weeds with currently labeled products. The crisis exemption received for Betanex in red beets last year is extremely unlikely for the 2005 season.

Currently labeled herbicides include RoNeet, Pyramin, Outlook, Stinger, and postemergence grass herbicides.

RoNeet should be applied up to 7 days prior to planting and incorporated via tillage immediately. RoNeet will control grass weeds and some broadleaf weeds. RoNeet has no effect on common ragweed.

Outlook must be applied after red beet reach the 2” stage but before the 6” stage. Outlook can be tank mixed with Poast, Select, and Stinger to control emerged weeds. Outlook has good to excellent activity on many annual grasses and fair to good control on a number of small seed annual broadleaf weeds.

Pyramin can be applied pre- or post-emergence or sequentially if total application rate does not exceed 11.25 lb/a. Pre-emerge treatments should be applied immediately after planting. Post emerge treatments should be applied after beets reach the 2 leaf stage, but before weeds reach the 2 leaf stage. Pyramin provides control on a number of broadleaves including ragweed and some nightshade.

Stinger has a relatively new label on red beet. Stinger can be applied post emergence to red beet for control of a number of nightshade species and common ragweed. Stinger has some minor activity on pigweed but does not control lambsquarters. (Label can be seen at http://www.cdms.net/ldat/ld02P045.pdf).

Select and Poast are labeled for red or garden beet and both provide good to excellent control of numerous grass weeds when applied post emergence.

Cultivation is also an important tool for weed management in red beet. Incorporation of mechanical and herbicide management strategies can lead to improved control. Many red beet herbicides are costly, so band applications can be used to help reduce cost, but requires timely interrow cultivation for optimum success. Please review and follow label directions before applying herbicides to red beet.

Research is underway to test efficacy of Betanex and other herbicides for efficacy in red beet in order to support current and future label requests.
Vegetable Disease Update - W. R. Stevenson, Department of Plant Pathology, UW-Madison, Tel. No. 608-262-6291, Email: wrs@plantpath.wisc.edu

Potatoes - Disease-wise, we are off to a slow start of the growing season. That’s good for the industry at this stage of the game. For the earliest emerging fields (May 18), we’ve accumulated only 3 severity values. One year ago (2004), we had already accumulated 17 severity values at Hancock. Unless things change drastically in the next few days, I would consider the early 2005 season risk for late blight to be very low.

Emergence has taken longer than normal due to cool soil conditions. There have been isolated cases of some seedpiece decay problems, but at the moment, nothing major. Some of the seed decay problems are likely due to the very dry conditions and warm temperatures at planting. This likely influenced wound healing and contributed to soft rot of the cut seedpieces. Our assays of rotted seedpieces will be completed in the next few days and once we know what the culprit is, we can make plans for next year.

Soybean Rust – Many growers have been asking about soybean rust and movement in southern states. The public website for soybean rust (http://www.sbrusa.net/) reports that “Four counties in Florida have reported soybean rust on kudzu. Seminole County in Georgia remains the only county with a positive rust find on soybeans. This was found on volunteer soybeans and these plants are being eliminated. Scouting continues throughout the south and southeastern part of the U.S. on kudzu and volunteer soybeans.” With funding provided by the Midwest Food Processors Association, we are planning an extensive evaluation of canning peas, dry peas, snap beans, lima beans and dry beans for their susceptibility to the soybean rust pathogen. We picked a field location near Jackson, MS because of it’s proximity to rust observation late last year and soybean production in the area. Our cooperator is patiently waiting for the rust pathogen to move over to Mississippi, but at the moment, our planting plans are on hold. We have explored alternative planting sites in Florida and feel that this is another option, should soybean rust begin to move. For the moment, we feel that the magic seeds are better in our suitcase than in the ground. At the first sign of movement off of kudzu to commercial soybeans, we will finalize our planting plans.

Weather Stations and Spray Triggers - You can keep tabs on severity value (late blight trigger) and P-Day (early blight trigger) accumulation at our four sites (Hancock, Grand Marsh, Plover and Antigo) at the following web address: (http://www.plantpath.wisc.edu/wivegdis/index.htm). The site currently contains information from only the Hancock site where we observed 50% emergence occurred on May 18. Environmental monitoring equipment is now installed at all sites. As the stations gather sufficient data to report and emergence is noted, we will expand the tables with P-Day and Severity Values and continue these calculations for the rest of the growing season.