Vegetable Crop Update #16
August 27, 2010

If you would like an electronic copy of the newsletter via email contact me at ajbussan@wisc.edu.

Vegetable Crop Update – A.J. Bussan, Department of Horticulture, UW-Madison, Tel. No. 608-225-6842, email: ajbussan@wisc.edu.

Potato: I heard many reports that bulking declined during the first 2 weeks of August and I must admit I was having a difficult time seeing the changes in the potato crop during that time. I guess that is why we collect data and take measurements. The estimated yield of Russet Norkotah increased 30 to 50% (80 to 150 cwt/a) from August 3 to August 12 with tubers increasing in size by at least an ounce. Russet Burbank yield estimates increased by similar amount with average tuber sizes of more than 5 oz per tuber. Norkotah crop appears to be nearly finished with fields almost 100% senesced. The Burbank crop still has bulking potential with healthy looking vines. Hopefully cooler nights have promoted increased tuber size and solids in the Burbank crop. Chip crop has also continued to grow with average tuber size of 2.5” in diameter and yields beginning to approach 500 cwt/a for Snowden.

Russet Norkotahs, Gold Rush, early chipping lines, and some other varieties in many fields are nearly 100% senesced. Chipping potatoes need to be vine killed within the next 7 days to allow for mid-September harvest and to optimize chemical maturity. Fields that have little bulking potential left should be vine killed to eliminate any green tissue to prevent late blight.

Vegetable Disease Update, August 20, 2010 – Amanda J. Gevens, Department of Plant Pathology, UW-Madison, Tel. No. 608-890-3072, Email: gevens@wisc.edu

Potato Late Blight: Late blight has been identified in additional counties along the east side of the state and in more fields in central WI this past week. Map below depicts reports of potato late blight (yellow stars) and tomato late blight (red stars) as of August 26, 2010.

Fields which were identified with foliar late blight may also have tuber blight. Tuber symptoms of late blight include gray-brown firm lesions on the outside of the tubers and brown, dry, and corky lesions internally. Pictures below show late blight on potato tubers. The dry late blight tuber infections can be further infected by soft-rotting bacterial pathogens in storage. If tubers are found to be infected in isolated areas of a field, these areas should be segregated and managed/marketed separate from the rest of the crop. Further details on handling harvest and storage management can be found in our August 13, 2010 newsletter #14: http://www.plantpath.wisc.edu/wivegdis/pdf/veg%20newsletter%2014.pdf.

DSVs are over the threshold of 18 for all Wisconsin locations. Information regarding fungicides can be found at: http://www.plantpath.wisc.edu/wivegdis/ or the University of Wisconsin Commercial Vegetable Production Guide A3422. The past several newsletters have also included specific fungicides for application and can be located at the above website.

<table>
<thead>
<tr>
<th>Location</th>
<th>Planted</th>
<th>50% Emergence</th>
<th>P-Day Cumulative</th>
<th>DSV Cumulative</th>
<th>Calculation Date</th>
</tr>
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<tbody>
<tr>
<td>Antigo Area</td>
<td>Early 5/3</td>
<td>5/27</td>
<td>742</td>
<td>219</td>
<td>8/26</td>
</tr>
<tr>
<td></td>
<td>Mid 5/14</td>
<td>6/6</td>
<td>677</td>
<td>208</td>
<td>8/26</td>
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</table>
Visit our web site at [http://www.plantpath.wisc.edu/wivegdis/index.htm](http://www.plantpath.wisc.edu/wivegdis/index.htm) where you can find updated P-Day and Severity Value information throughout the growing season. Values in red indicate a value greater than the threshold (P-Day of 300 and DSV of 18).

**Tomato: Late blight:** Please see comments above in potato section for information on late blight occurrences in the state. To date, late blight has been identified on tomato across central WI. Symptoms have been both on foliage and tomato fruit. Healthy appearing or asymptomatic fruits can begin to express late blight symptoms after harvest. For this reason, continue to assess tomatoes that may be temporarily stored prior to fresh market sale.

Plants that are heavily infected (both foliage and fruit) should be destroyed by one or more of the following methods (killing plants will kill the pathogen): application of herbicide to kill above-ground plant parts and fruit, cutting plants at the base and allowing plant to die in place, flame-killing plants with propane burner, pulling plants up (roots and all) and burning or placing into a black or dark-colored plastic bag and leaving in host sun to heat kill plants and pathogen. Do not deeply bury infected plant material or compost late blight infected plant material.

Late blight infected fruit should not be consumed. Although the late blight pathogen is not known to be a human pathogen, the damaged fruit can also become infected with bacterial pathogens that alter pH and impact safety of fresh or canned tomatoes. The following link will take you to further information by Dr. Barb Ingham, Food Science Extension Specialist from the University of Wisconsin regarding food safety concerns associated with late blight on tomato. [http://www.uwex.edu/news/read.cfm?id=1121](http://www.uwex.edu/news/read.cfm?id=1121).

**Cucurbits:** Downy mildew and Phytophthora crown and fruit rot continue to progress in many areas of the state. Protecting the foliar canopy of winter squash and pumpkin crops against downy mildew is important as several weeks of bulking and maturity still lie ahead. A loss of foliar canopy can result in sunscalding of the fruit, which directly affects fruit quality, and makes fruit more susceptible to disease. As indicated in last week’s newsletter, severe Phytophthora infection is best handled by destroying plant material by plowing under affected areas of a field or by rouging entire plants. This effort will limit further production of spores (inoculum). Information regarding fungicides can be found at: [http://www.plantpath.wisc.edu/wivegdis/](http://www.plantpath.wisc.edu/wivegdis/) or the University of Wisconsin Commercial Vegetable Production Guide A3422. The past several newsletters have also included specific fungicides for application and can be located at the above website.

**Pepper:** Peppers have been severely affected by Phytophthora crown and fruit rot in several WI locations this season. A recent Crop Advisory Team report released earlier this week by Dr. Mary Hausbeck at Michigan State University illustrates the benefit of incorporating varietal resistance (*Phytophthora capsici*-tolerant ‘Paladin’) with an effective fungicide program for the management of Phytophthora crown and fruit rot. The most effective fungicides on ‘Paladin’ pepper in this trial were Revus and Presidio. Link to article: [http://ipmnews.msu.edu/vegetable/vegetable/tabid/151/articleType/ArticleView/articleId/3118/Phytophthora-research-and-control-in-peppers.aspx](http://ipmnews.msu.edu/vegetable/vegetable/tabid/151/articleType/ArticleView/articleId/3118/Phytophthora-research-and-control-in-peppers.aspx).