

# Vegetable Crop Update - #4

June 20, 2007

The vegetable crop update is archived on the Wisconsin Crop Manager website at: <http://ipcm.wisc.edu/wcm/>.

**Potato and Vegetable Crop Update 6/20/07 – 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)**

Crops are developing nicely across much of the state with few exceptions. Harvesting of peas has commenced and many fields of cucumber, snap beans, sweet corn, and other summer crops continue to be planted in earnest. We received some much needed precipitation in some parts of the state over the past several days, as hot dry weather was prevalent over much of Wisconsin late last week and into the weekend.

**Potato** - Many potato varieties are in bloom giving the fields an aesthetically pleasing appearance across much of Wisconsin. Some slow developing varieties finally closed canopy over the past week and it's a good thing as ground cover is important for shading soils for moderating soil temperatures during hot sunny days.

Russet Norkotah were 2" long yesterday afternoon with 6 to 10 tubers set per plant in the few I dug. Russet Burbank potatoes were about 1" in size with well over 10 tubers per plant and a number of stolons with no tubers present. Red Norland potatoes were 2" in diameter on sand, and about half that size on the muck when planted in May.

Hot weather late last week and into the weekend caused wilting of plants in front of the irrigation systems. Hot weather can stress potato plants even though soil moisture status is adequate to meet crop needs. Potato rooting systems are limited and under warm conditions the crop simply cannot take up enough water to prevent wilting.

ET rates have exceeded 0.2" per day for most of the last week and reached 0.25" during the early part of this week. Irrigation is critical for preventing hills from drying and for maintaining cooler soil temperatures. Potato crops have initiated tubers and the crop is well into the early bulking stage.

Checking hill moisture before and after the irrigation system travels through an area of the field can provide indications of how well irrigation is maintaining soil moisture. To this point, we have been able to avoid the formation of the dry zone, but the recent conditions favor its development especially once the vines begin to lodge.

**Processing vegetables** – Sweet corn planted the first week of May is waist high and has reached the 10 to 12 leaf stage. Tassels have just begun to emerge in some hybrids and some fields. Cooler conditions over the past couple of days should favor pea growth and pod fill. Rain was a welcome site on many non-irrigated processing crops and should improve stands in new fields.

**Vegetable Insect Update 6/20/07 – 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).**

**Onions** – Warm and dry conditions have helped to drive increases in the populations of onion thrips in both direct-seeded and transplant onion crops. In early transplants, onion thrips populations are nearing thresholds (1 immature thrips / leaf), and perhaps may have very recently exceeded this threshold at some locations. Yellow sticky traps setup surrounding onions have detected dispersing populations of thrips throughout the week and more are expected as climatic conditions remain favorable for these populations (warm and dry).

The treatment interval for onion thrips varies depending upon the method of onion planting (transplanted vs. direct seeded) and maturity of the variety. Dr. Brian Nault, Cornell University entomologist who has worked extensively with these insect pests, suggests that action thresholds for thrips control are often reached in mid-June for transplanted onions in New York and are often reached or exceeded in early July in the later-maturing, or direct seeded fields. Furthermore, he recommends the following sequence of materials for use based upon the planting methodology and also revised action thresholds.

**Sequence of insecticides to apply for onion thrips control in onion fields.** Two applications of each product should be used and timing should be based on an action threshold. For Carzol, sprays may be timed 10 days apart or longer. For most other products, sprays will likely be timed 7 days apart. However, if there is a field that is experiencing a significant influx of thrips from an adjacent field or if the population is high, the spray interval may be shortened to every 5 days, label permitting.

**Transplanted onions and early maturing direct seeded onion varieties**

1. SpinTor 2SC @ 1 thrips per leaf (2 applications, probably 7 days apart)
2. Carzol SP @ 3 thrips per leaf (2 applications, probably more than 7 days apart)<sup>1</sup>
3. Lannate LV, or Vydate L @ 1 thrips per leaf (2 applications, if needed)

**Direct-seeded onions (late-maturing varieties)**

1. SpinTor 2SC @ 1 thrips per leaf (2 applications, probably 7 days apart)
2. Carzol SP @ 3 thrips per leaf (2 applications, probably more than 7 days apart)<sup>1</sup>
3. Lannate LV, or Vydate L @ 1 thrips per leaf (2 applications, if needed)
4. Pyrethroid insecticide @ 1 thrips per leaf (2 applications, if needed)<sup>2</sup>

<sup>1</sup> If first spray of Carzol does not reduce the thrips population to below 1 thrips per leaf after 7 days, apply again at this time. Do not wait until 3 thrips per leaf is met.

<sup>2</sup> If the onion thrips population increases after the product was applied, avoid the second application and use a different product belonging to the opposite class. For example, if Warrior is used and the population increases after one spray, do not make a second application of Warrior. Instead, use another mode of action class that has not previously been used during the season.

**Snap Beans** – As reported in a recent newsletter, weather conditions during the late spring have contributed to significant, long-distance immigrations of several problematic insect pests including the potato leafhopper (PLH). In both potato and the early-planted snap bean crop,

populations of adult PLH are increasing and populations have exceeded thresholds in potato over the last 2 weeks in several areas. In early planted snap beans, populations of leafhoppers have continued to increase again this week and some early nymphs have been reported. Furthermore, action thresholds of 0.5 – 1.0 adult PLH / 25 sweeps have been exceeded in some younger fields and initial insecticide applications have begun. Damage caused by the insects include stunting of early plants, leaf bronzing, and overall chlorosis with plant decline. Damage to the vascular tissue results from a toxemia injected into the plant found in the saliva of the feeding PLH. Affected areas initially become necrotic and eventually progress from the leading edge of affected leaves towards the leaf base over time. Sufficient control of these problematic populations can be achieved using lower to mid range rates of synthetic pyrethroids including, but not limited to, Capture<sup>®</sup> 2EC, Asana<sup>®</sup> XL, or Mustang Max<sup>®</sup>.

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

**Potato:** The potato crop health continues to be excellent. The first lesions of early blight are beginning to appear on the lowest leaves of the earliest planted fields. There are currently no reports of late blight in our state or neighboring states. The Severity Value totals are slowly increasing but with the forecast for the next few days, I don't expect to reach the spray threshold of 18 severity values for several more days. P-Days are increasing steadily and we will be at the early blight spray threshold of 300 P-Days by the end of this week. Many growers have initiated fungicide sprays to achieve coverage of lower stems and older foliage before row closure. With the uniformity of crop growth and excellent crop color, the crop is off to a great healthy start.

Some growers have a history of pink rot and plan to apply protectant fungicides such as mfenoxam (Ridomil) or one of the phosphoric acid materials beginning at nickel size tubers. Our research trials in commercial fields are being initiated this week, earlier than I anticipated. Tubers are growing rapidly in the test fields so the two trials we are involved in this year are off to a good start. If you are intending to use one of these products that depend on tuber size for application, you could be close to the first treatment threshold.

A few fields were hit with hail last week with consequent leaf tearing and stem scarring. When this type of injury occurs, I generally suggest that the field be treated as soon as possible with a mixture of broad spectrum fungicide such as chlorothalonil or EBDC product combined with one the copper materials at label rates. These materials will protect the injured tissue and buy some time while the plant recovers.

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

|                  | Planted:       | 50%<br>EMERGENCE | P-Days | Severity<br>Values | Calculation<br>Date |
|------------------|----------------|------------------|--------|--------------------|---------------------|
| Antigo area      | Early - May 8  | May 31           | 133    | 7                  | 6/18/07             |
|                  | Mid - May 21   | June -           | 59     | 0                  | 6/18/07             |
|                  | Late - June 1  | June -           | -      | -                  | -                   |
| Grand Marsh area | Early - Apr 16 | May 12           | 203    | 8                  | 6/11/07**           |
|                  | Mid - Apr 20   | May 18           | 170    | 8                  | 6/11/07**           |
|                  | Late - Apr 27  | May 28           | 106    | 8                  | 6/11/07**           |
| Hancock area     | Early - Apr 16 | May 8            | 286    | 9                  | 6/18/07             |
|                  | Mid - Apr 24   | May 14           | 245    | 9                  | 6/18/07             |
|                  | Late - May 2   | May 23           | 192    | 9                  | 6/18/07             |
| Plover area      | Early - Apr 14 | May 8            | 283    | 12                 | 6/11/07             |
|                  | Mid - Apr 20   | May 15           | 234    | 12                 | 6/11/07             |
|                  | Late - May 2   | May 22           | 190    | 12                 | 6/11/07             |
| Spoooner         | Mid - May 4    | May 30           | 151    | 2                  | 6/7/07              |

\*\* - The Grand Marsh weather station is not answering the phone. We will manually retrieve the data on 6/19 and update our website. This has been an ongoing problem at this site with the device answering only on the afternoons of sunny days and even then it seems to be hit or miss. We are pursuing several options and hopefully a solution will be forthcoming.

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.

**Peas and Snap Beans:** Pea and snap bean fields continue to exhibit a uniform color and with excellent stands, disease problems are minimal at this time. We seem to have just enough rain and irrigation to keep the plants growing optimally without promoting root rot or bacterial pathogens on the foliage.

**Other Vegetable Crops:** We are not seeing samples of other vegetable crops with disease signs or symptoms to indicate any problems at this point. Conditions are ideal for crop development.