



# WEEKLY CROP UPDATE

UNIVERSITY OF DELAWARE COOPERATIVE EXTENSION

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## Vegetables

**Vegetable Crop Insects** - *Joanne Whalen, Extension IPM Specialist; [jwhalen@udel.edu](mailto:jwhalen@udel.edu)*

NOTE - Trap catches are generally being updated twice a week on our IPM website at <http://ag.udel.edu/extension/IPM/traps/latestbit.html>. You can also call the Crop Pest Hotline (generally updated by Tuesday and Friday AM for the most recent trap catches at (800) 345-7544 (in-state) or (302) 831-8851 (out of state).

### Cucumbers

Continue to scout all fields for cucumber beetles and aphids. Fresh market cucumbers are susceptible to bacterial wilt, so treatments should be applied before beetles feed extensively on cotyledons and first true leaves. Pickling cucumbers have more tolerance to wilt, but a treatment may be needed on machine harvested pickles if 5% of plants are infested with beetles and/or showing fresh feeding injury. A treatment should be applied for aphids if 10 to 20 percent of the plants are infested with aphids with 5 or more aphids per leaf.

### Melons

With the predicted hot weather, be sure to scout carefully for aphids, cucumber beetles and spider mites. In some fields, spider mite populations are just at or below threshold levels. If spider mite populations are high at the time of treatment, 2 sprays spaced 5 days apart may be needed. Acramite (only one application per

season), Agri-Mek, Capture (bifenthrin), and Danitol are labeled on melons for mite control. Be sure to read all labels for restrictions, rates and maximum allowable amounts.

### Peppers

We have started to find corn borer egg masses on pepper leaves. Be sure to check local moth catches in your area at <http://ag.udel.edu/extension/IPM/traps/latestbit.html>. As soon as the first flowers can be found, be sure to consider a corn borer treatment. Depending on local corn borer trap catches, sprays should be applied on a 7-10 day schedule once pepper fruit is ¼ - ½ inch in diameter. You should also continue to check fields for aphids. A treatment may be needed prior to fruit set, if you find 1-2 aphids per leaf for at least 2 consecutive weeks and beneficial activity is low.

### Potatoes

Continue to scout fields for Colorado potato beetle (CPB), corn borers (ECB) and leafhoppers. Small and large CPB larvae can now be found in fields. Be sure to check our website at <http://ag.udel.edu/extension/IPM/traps/latestbit.html> for the most recent corn borer moth catches in your area. We can also find leafhopper adults and nymphs. As a general guideline, controls should be applied if you find ½ to one adult per sweep and/or one nymph per every 10 leaves.

## Snap Beans

Continue to scout all seedling stage fields for leafhopper and thrips activity. Once corn borer catches reach 2 per night, fresh market and processing snap beans in the bud to pin stages should be sprayed for corn borer. Sprays will be needed at the bud and pin stages on processing beans. Once pins are present on fresh market snap beans and corn borer trap catches are above 2 per night, a 7-10 day schedule should be maintained for corn borer control. Since trap catches can change quickly, be sure to check our website for the most recent trap catches and information on how to make a treatment decision in processing snap beans using trap catches (<http://ag.udel.edu/extension/IPM/traps/latestblt.html> and <http://ag.udel.edu/extension/IPM/thresh/snapbeanecbthresh.html>).

## Sweet Corn

Continue to sample seedling stage fields for cutworms and flea beetles. You should also sample all whorl stage corn for corn borers. A treatment should be applied if 15% of the plants are infested. The first silk sprays will be needed for corn earworm as soon as ear shanks are visible. Be sure to check both BLT and pheromone traps for the current trap catches since they can change quickly. Trap catches must also be backed up by field scouting. Trap catches are generally updated on Tuesday and Friday mornings (<http://ag.udel.edu/extension/IPM/traps/latestblt.html> and <http://ag.udel.edu/extension/IPM/thresh/silksp raythresh.html>).

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## Potato Disease Advisory June 8, 2007 - Bob Mulrooney, Extension Plant Pathologist

Disease Severity Value (DSV) Accumulation as of June 7, 2007 is as follows:

Location: Broad Acres, Zimmerman Farm, Rt 9, Greenrow: May 2

Remember that 18 DSVs is the threshold to begin a spray program for late blight

Date	LATE BLIGHT			EARLY BLIGHT
	Daily DSV	Total DSV	Spray Recs	Accumulated P days*
5/17	1	5	none	117
5/18 - 5/20	0	5	none	139
5/21 - 2/23	0	5	none	163
5/24 -5/28	0	5	none	196
5/29- 5/31	0	5	none	229
6/1-6/2	0	5	none	245
6/3-6/4	5	10	none	264
6/5- 6/6	0	10	none	282
6/6 -6/7	0	10	none	290

Remember that these values are for potatoes that would have about 50% emergence and made a row that you can see on or before May 2.

If pink rot or leak is a concern and no pink rot fungicide was applied at planting consider applying one of the following when potatoes are nickel-sized and repeating 14 days later. Apply in as much water as possible (20-30 gal/A): Mefanoxam/chlorothalonil (Ridomil/Bravo or Flouranil) 2 lb/A, or Ridomil Gold/MZ 2.5 lb/A, or Ridomil Gold/Copper 2 lb/A.

\* P days- We use the predictive model WISDOM to determine the first fungicide application for prevention of early blight as well. The model predicts the first seasonal rise in the number of spores of the early blight fungus based on the accumulation of 300 physiological days (a type of degree-day unit, referred to as P-days) from green row. To date, 290 P-days have accumulated at the site. Once 300 P-

days have accumulated, the first fungicide for early blight control should be applied. This usually occurs when rows are touching. Although we are not at 300 P-days yet, we will probably reach that this week. If fields have not received a fungicide yet it might be a good time to apply the first spray for early blight.

For specific fungicide recommendations, see the 2007 Delaware Commercial Vegetable Production Recommendations Book.

## Agronomic Crops

**Agronomic Crop Insects** - Joanne Whalen, Extension IPM Specialist; [jwhalen@udel.edu](mailto:jwhalen@udel.edu)

### Alfalfa

We continue to find both potato leafhopper nymphs and adults in fields. Although both stages can cause damage, once nymphs are detected damage can occur rapidly. The treatment thresholds are 20 per 100 sweeps on alfalfa 3 inches or less in height, 50 per 100 sweeps in 4-6 inch tall alfalfa and 100 per 100 sweeps in 7-11 inch tall alfalfa.

### Field Corn

We have found cereal leaf beetle adults feeding on corn. In most cases, feeding is confined to field edges; however, it may also be seen throughout the field. No controls should be needed unless you find 10 beetles per plant throughout the field and 50 percent of the plants are damaged.

### Soybeans

We continue to find bean leaf beetle feeding in the earliest planted fields. As a general guideline, a treatment for bean leaf beetle may be needed from plant emergence to the second trifoliolate when you find 2 beetles per foot of row and a 20 - 25% stand reduction. You should also watch for grasshoppers, especially in no-till fields. We continue to see an increase in activity of small nymphs. In general, the treatment threshold for grasshoppers is 1 per sweep and 30% defoliation. Multiple applications are often needed for grasshopper control.

**Agronomic Crop Diseases** - Bob Mulrooney; Extension Plant Pathologist; [bobmul@udel.edu](mailto:bobmul@udel.edu)

### Soybean Rust Update

Soybean rust was detected on kudzu in St. Mary's Parish in southern Louisiana on June 5th. Rust has now been found on kudzu in two Parishes in Louisiana. The incidence and severity of the disease at the initial site in Iberia Parish has increased significantly since it was first found on May 8. Weather conditions in this area are favorable for continued development of the disease. Soybean rust was also detected in a small patch of kudzu in eastern Texas in Liberty County on June 2. This is currently the only known active rust site in Texas. This Texas find is very small and did not require local soybean growers to begin spraying for soybean rust. Tropical depression Barry and the end of the high pressure system that was centered over Florida have resulted in a dramatic change in weather conditions in that state. Barry deposited several inches of rain across peninsular Florida last week. Current forecasts suggest that more typical rain patterns will continue in Florida which will favor soybean rust development and spread. Keep updated on new developments by visiting the Legume PIPE website [www.sbrusa.net](http://www.sbrusa.net).

Locally all our sentinel plots are planted and the most are in the VC stage of growth. No diseases have been seen so far.

### Corn

We have received several samples this week of foot-tall irrigated corn that has flopped over half way up the stem. The center of the plants is soft and mushy. Plants with advanced symptoms smell foul. The infected plants are scattered in a very random pattern. The cause of the problem is bacterial soft rot from bacteria introduced either from the irrigation water source, in

several cases pond water. The initial symptoms are water soaked leaf sheaths that progress into a soft rot of the whorl. The cut stems reveal the brown rot of the stem. The decay does not progress to the lower nodes and the roots of infected plants are healthy. The disease is favored by high temperatures and humidity, which we had last week, and irrigation with surface water: river, pond, or impounded water. We have looked for *Pythium* which can cause similar symptoms but have found none. The bacteria has not been reported to be seedborne. Some inbreds possess limited resistance. The disease is not common so the resistance or susceptibility of hybrids may not be known.



Close-up of watersoaking from bacterial stalk rot.



Bacterial stalk rot. Note collapsed stalk and water-soaking of the leaf sheath. Lower stem and roots are healthy.



Symptoms on a cross-section of stem; note the brown discoloration and the tissues are very soft.

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**Magnesium Deficiency in Corn Part II** -  
*Gordon Johnson, Kent County Extension  
 Agriculture Agent; [gcjohn@udel.edu](mailto:gcjohn@udel.edu) and Richard  
 Taylor, Extension Agronomy Specialist;  
[rtaylor@udel.edu](mailto:rtaylor@udel.edu)*

As a follow-up to last week's article we are including some photos of corn with magnesium deficiency symptoms. Remember, in corn, magnesium deficiency commonly first appears as yellow or white stripes between the veins of lower corn leaves. As the deficiency progresses, the striping may turn into dead, round spots appearing as beaded streaks. Lower leaves may also be purple in color and leaf tips and margins may brown and die. The plants may be stunted and have an overall yellow appearance. Symptoms are most severe on older leaves because magnesium is a mobile element in

plants and will be scavenged from older leaves and transported to new growth.



Magnesium deficiency symptoms on corn.



Magnesium deficiency symptoms on corn.

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**Grain Marketing Highlights** - *Carl German, Extension Crops Marketing Specialist;*  
[clgerman@udel.edu](mailto:clgerman@udel.edu)

#### **Bull Run in Soybeans and Wheat Alleviates or Not?**

The Wednesday session this week marked, what could be, the discontinuation of a significant bull rally in the soybean and wheat markets. Further price deterioration is expected in the front month contracts as the index funds roll out of July positions and into September. The new crop corn, soybean, and wheat markets are still fundamentally supported by weather concerns.

#### **USDA Export Sales Report**

Pre-report estimates placed corn export sales at 700,000 to 900,000 metric tons (27.6 to 35.4 mb). The weekly report showed export sales of 375,800 metric tons (14.8 mb). The report will be viewed as bearish in that exports of 18 mb were needed this week to stay on pace with USDA's projection of 2.2 billion bushels for the '06/'07 marketing year. It is now being suggested that USDA may trim the export estimate for corn for the current marketing year.

Pre-report estimates for soybeans ranged between 250,000 to 400,000 metric tons (9.2 to 14.7 mb). The weekly report showed export sales of 200,200 mt (7.4 mb). This was above the 1.6 mb needed this week to stay on pace with USDA's projected 1.08 billion bushels of U.S. soybean exports for the '06/'07 marketing year. The report can be viewed either bullish or bearish depending upon the point of reference.

Pre-report estimates for wheat ranged between 300,000 to 400,000 metric tons (11 to 14.7 mb). The weekly report showed old crop net cancellations of 35,600 mt (-1.3 mb), and new crop sales of 347,700 metric tons (12.8 mb). This report is viewed as neutral to the wheat market.

#### **Marketing Strategy**

A look at the Northern Tier of the Corn Belt from an altitude of 35,000 feet, flying from Philadelphia to Omaha via Milwaukee, would suggest that '07 corn and soybean production has a long way to go. The 6 to 10 day weather forecasts are going to whipsaw prices in the trading pits in the weeks ahead as traders seek an equilibrium price that lines up with expected and, eventually, actual production. One has to wonder whether prices are already too high to sustain demand for U.S. corn, soybeans, and wheat in the world market. Perhaps a correction is in order? Nevertheless, weather remains the dominant factor. New crop Dec '07 corn futures are currently trading at \$3.88 per bushel; Nov '07 soybean futures at \$8.57; with July '07 wheat futures at \$5.27 per bushel. For technical assistance on making grain marketing decisions contact Carl L. German, Extension Crops Marketing Specialist.

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# Weather Summary

Carvel Research and Education Center Georgetown, DE

Week of May 31 to June 6, 2007

Readings Taken from Midnight to Midnight

## Rainfall:

0.91 inch: June 3

0.15 inch: June 4

0.06 inch: June 6

## Air Temperature:

Highs Ranged from 88°F on May 31 and June 2 to 69°F on June 3.

Lows Ranged from 67°F on June 4 to 56°F on June 6.

## Soil Temperature:

76°F average.

(Soil temperature taken at a 2" depth, under sod)

Additional Delaware weather data is available at <http://www.rec.udel.edu/TopLevel/Weather.htm>

*Weekly Crop Update is compiled and edited by Emmalea Ernest, Extension Associate - Vegetable Crops*

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