



WEEKLY CROP UPDATE

UNIVERSITY OF DELAWARE COOPERATIVE EXTENSION

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Soybean Rust Update

There have been no confirmed new detections of soybean rust this week. Activity is very slow, but could change rapidly. Be sure to keep checking the forecasting websites for new information: <http://www.sbrusa.net/> and <http://www.ces.ncsu.edu/depts/pp/soybeanrust/>

All six of Delaware's sentinel plots have been visited this week and are at V2 to V3 stage of growth. *Septoria leafspot* or brown spot is present in most early soybeans including the sentinel plots. This is the first rust-look-a-like disease of the season and is very prevalent on the unifoliolate leaves. Become familiar with these symptoms now because if the season is wet, this disease often will be seen in the upper canopy about the time soybean rust may show up and it will be helpful to be able to distinguish between these two diseases.

Suggestions and recommendations for spraying for Asian soybean rust with ground sprayers

We concluded our Soybean Rust Sprayer Clinics Wednesday night and I thought they were very successful. I wanted pass along recommendations made by Ray Kaczmarczyk, Application Technology Engineer for DuPont Crop Protection at those meetings. Ray's recommendations were the following:

- Nozzle type - Spraying Systems Twin Jet and

Turbo Tee Duo, and Hypro Twin Cap (tip opening depends on spray volume, pressure, etc.)

- Nozzle spacing - no more than 20 inches, closer is better
- Nozzle angle - 80° or higher
- Droplet size - medium is best
- Pressure - 40 to 80 PSI
- Spray volume - 15 to 20 gal/A
- Boom height - 8 to 12 inches above the crop
- Speed - whatever works for you, but slower is better, but you have to get the acres sprayed too.

These recommendations are based on experience in Brazil as well as Ray's rigorous tests at DuPont. We are fortunate to have someone so close to us with this expertise and I really appreciated his willingness to come and present this information to our growers and some from MD as well.

Bob Mulrooney

Vegetables

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

Cucumbers

All fields should be scouted 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 if you find 2 or more beetles per plant and/or significant damage can be found on the cotyledons. 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. Fulfill, Thionex or Lannate are labeled for aphid control. Be sure to watch for bees foraging in the area. A pyrethroid (Asana, Capture, permethrin), Lannate, Sevin or Thionex are labeled for cucumber beetle control in cucumbers.

Melons

Continue to scout all melons for aphids, cucumber beetles, and spider mites. The treatment threshold for aphids is 20% infested plants with at least 5 aphids per leaf. Be sure to also watch for beneficials. The threshold for mites is 20-30% infested crowns with 1-2 mites per leaf. Cucumber beetle populations have exploded in many fields. Since beetles continue to re-infest fields, multiple applications are often needed. Be sure to watch for bees foraging in the area.

Peppers

Continue to sample for corn borers. We continue to find corn borer egg masses on pepper leaves and in some cases we have observed hatching from egg masses. Before fruit is present, these young corn borer larvae can infest stems and petioles. Be sure to also check local moth catches in your area at <http://www.udel.edu/IPM/traps/latestblt.html>. We are also starting to see an increase in aphid populations. 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 CPB larvae can now be found in fields. We continue to see an increase in corn borer moth activity as well as egg laying. Be sure to check our website at <http://www.udel.edu/IPM/traps/latestblt.html> for the most recent moth catches in your area. Just a reminder, heavy rains after egg hatch can

cause significant mortality to small corn borer larvae. If you are scouting for infested terminals, the first treatment should be applied when 10% (fresh market) or 20-25 % (processing) of the terminals are infested with small ECB larvae. We continue to find low levels of potato leafhopper adults.

Snap Beans

All seedling stage fields should be scouted for leafhopper and thrips activity. The thrips threshold is 5-6 per leaflet and the leafhopper threshold is 5 per sweep. If both insects are present, the threshold for each should be reduced by 1/3.

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 trap catches since the spray schedules can quickly change. Trap catches are generally updated on Monday and Thursday nights.

<http://www.udel.edu/IPM/traps/latestblt.html>

Agronomic Crops

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

Alfalfa

Continue to sample all fields for leafhoppers, especially spring planted fields. Once the damage is found, yield loss has already occurred. 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 fields with true armyworms feeding in the whorls of no-till corn. Be sure to sample no-till fields for larvae feeding in the whorls of plants where a grass cover or volunteer small grains were burned down at planting. The treatment threshold for armyworms in corn is

25% infested plants with larvae less than one-inch long. Large larvae feeding deep in the whorls will be difficult to control.

Small Grains

We continue to find a few barley and wheat fields with economic levels of armyworms. In some cases, grass sawfly are present in the mix but they are almost done feeding. The armyworm threshold is one per foot of row in barley and two per foot of row in wheat.

Soybeans

We continue to find bean leaf beetle feeding in the earliest planted fields. A treatment for bean leaf beetle may be needed from plant emergence to the second trifoliate when you find 2 beetles per ft. row and a 25% stand reduction. You should also watch for grasshoppers, especially in full season no-till fields. We are seeing an increase in activity of small nymphs. The treatment threshold for grasshoppers is 1 per sweep and 30% defoliation. Multiple applications may be needed for grasshopper control.

Wheat Diseases - Bob Mulrooney, *Extension Plant Pathologist*; bobmul@udel.edu

Wheat diseases continue to develop. Stripe rust is still very evident on susceptible varieties. Septoria leafspot is increasing but will probably be too late to do much damage at this point. Glume blotch caused by *Septoria nodorum* is just beginning to appear. The hot weather will slow down any powdery mildew that was developing. Look for scab on wheat 2-3 weeks after flowering. None has been spotted yet in my travels. It is too late for any fungicide treatment at this time.

Correction

I believe I have inadvertently given the wrong impression that Quilt is not labeled on wheat in DE and MD. In the articles I wrote on control of stripe rust I said that it was not labeled but meaning that it was not labeled for the later application at head emergence (Feekes 10.5) that is allowed for all the other wheat fungicides. It is labeled on wheat nationally but

in DE and MD up to growth stage 9 only, which is flag leaf emergence. I am sorry for the mistake and hope this clears up any confusion I may have caused.

Hot Weather and Volatility with Dicamba and 2,4-D - Mark VanGessel, *Extension Weed Specialist*; mjv@udel.edu

With the warm weather we have been having, spraying postemergence herbicides in early planted corn may require additional consideration because of the temperature. It is not recommended to spray dicamba or 2,4-D when the temperature is expected to be 85 degrees or hotter; or spray late in the day when temperatures drop below 85. A number of pre-mixes have dicamba (active ingredient in Banvel and Clarity) including, Distinct, Celebrity Plus, Marksman, and NorthStar; so the temperature consideration applies to them as well. Shotgun is a pre-package mixture of 2,4-D and atrazine.

Harvest Aid for Small Grain - Mark VanGessel, *Extension Weed Specialist*; mjv@udel.edu

Roundup WeatherMax (up to 0.7 qt/A) or Touchdown (up to 1 qt/A) are labeled as harvest aids in winter wheat and barley. Applications must be made after the hard-dough stage and at least 7 days prior to harvest.

Time to Scout Corn For Weeds - Mark VanGessel, *Extension Weed Specialist*; mjv@udel.edu

It is important to start to get over the corn ground to check if there are weed breaks, particularly since we have had so much rain, and we have not had much shading due to the slow growing corn. Crabgrass is one that worries me since it is very difficult to control with a postemergence spray. Most of the postemergence grass herbicides (Basis Gold,

Steadfast, or Option) will not control crabgrass over 1 to 2 inches tall. Herbicide-resistant corn (Liberty Link or Roundup Ready) gives you a wider window for crabgrass control. However, other weeds are likely to start emerging as well so be sure to check your fields soon.



Grain Marketing Highlights - *Carl German, Extension Crops Marketing Specialist;*
clgerman@udel.edu

Recap of the May Supply and Demand Report
USDA will release the June supply and demand report this Friday, June 10th. Not many changes are foreseen in this report. It is possible, but not exceptionally likely, that USDA may choose to back off from their preliminary production estimates for U.S. corn. The reason that is not likely to happen in this report is because USDA generally does not make changes in production estimates in the June report. The May '05 U.S. corn production estimate was placed at 10.985 billion bushels from 74.2 million acres harvested and a yield estimate that was slightly above trend at 148 bushels per acre. Ending stocks were estimated at 2.540 billion bushels. For soybeans, we are not likely to see a change in the production estimate at this juncture; however, we may get a reduction in projected ending stocks due to strong demand, particularly from China. Ending stocks for U.S. soybeans were placed at 290 million bushels in the May report. According to the May report, USDA is projecting a 2.895 billion bushel soybean crop from 72.6 million acres harvested at 39.9 bushels per acre. Total '05 wheat production is currently forecast at 2.185 billion bushels, with ending stocks building to 678 million bushels.

Factors Driving the Market

Three words can best describe the primary factors that are currently dictating commodity prices at the Chicago Board of Trade -- weather, weather and weather!!! Of course the impact of the weather is increasing the activity of the funds and commodity speculators which in turn adds to commodity price volatility. It is fair to say that the 'weather train' boarded early this year and that it is likely building steam. The months of June and July are generally the most

volatile trading months in the corn and soybean pits. A word of caution is in order in attempting to do an orderly job of marketing '05 crop production and that is, thus far, the Weekly Crop Condition reports have been normal. Nevertheless, look for volatility in commodity prices to remain strong over the next 6 to 8 weeks.

Market Strategy

Savvy commodity marketers are now in a 'wait 'n see' mode with anywhere between 25 to 50% forward priced. Stay tuned to commodity prices in the near term, over the next thirty days. Due to the volatility that is now in the commodity markets, time is on the commodity sellers side, a seller's market if you will. Bear in mind that a general soaking rain or two in the drought swath through Illinois can (will) turn corn and soybean prices South in a hurry.

Current New Crop Futures Prices

Dec corn \$2.36; Nov soybeans \$6.79; July wheat \$3.17 (1:35 p.m. 6/8/05).

New Crop Basis Bids

Dec corn 10 over; Nov soybeans 20 under; July wheat 25 under (Bridgeville).

Delaware Marketing Loan Rates

Corn \$2.18 per bushel; Soybeans \$5.13 per bushel; Wheat \$2.57 per bushel.

Put Option Premiums

Dec corn - \$2.40 Strike Price - 20 cents per bushel; Nov soybean - \$6.80 Strike Price - 47 cents per bushel; Dec wheat - \$3.20 Strike Price - 13 cents per bushel.

General Info

Careful of Surfactant Use in this Weather -

Mark VanGessel, Extension Weed Specialist;
mjv@udel.edu

Due to cool weather and ample moisture, plants have very thin cuticles which may result in increased injury with postemergence herbicides. Nitrogen additives are most likely to cause crop injury with this weather. Also, consider using non-ionic surfactant rather than crop oils to

reduce the risk of injury. University of Delaware data supports use of non-ionic surfactants over crop oil concentrates (when both are listed as options) because non-ionic surfactants provide similar levels of weed control as crop oils with less risk of injury.



Cultivation and Postemergence Herbicide Treatment - Mark VanGessel, Extension Weed Specialist; mjv@udel.edu

Questions have come in about whether to cultivate first or spray first for weed control. Keep a few things in mind. Weeds are easier to control when they are small but consider which option is going to be more effective when weeds get larger. Cultivation will control the weeds

between the rows but not in the row. Those weeds in the row are the ones on which you need to base your decision of whether to spray or cultivate first. More often than not, it is better to spray first and then cultivate. Also, weeds not completely killed with cultivation are more difficult to control with herbicides. **Note this assumes that the herbicide is the right herbicide for the weed(s) in your field. The weeds that emerge after cultivation are going to be much smaller and have less impact on yield (if any impact at all). Setting your cultivator so it runs only 1 to 2 inches deep will slice through the weeds and not disrupt the herbicide layer from your preemergence herbicides. This in turn will limit the number of weeds that will emerge due to cultivation. It is generally recommended to wait a minimum of 5 to 7 days between herbicide treatment and cultivation.

Potato Disease Advisory #7 - June 9, 2005, Bob Mulrooney, Extension Plant Pathologist

Late Blight Advisory (18 DSV's Exceeded)

Disease Severity Value (DSV) Accumulation as of June 8, 2005 is as follows:

Location: Joe Jackewicz Farm, Magnolia, DE. Greenrow: May 4, 2005

Remember that 18 DSV's is the threshold to begin a spray program.

Date	Daily DSV	Total DSV	Spray Recommendation
5/4- 5/18	0	1	none
5/20-5/21	6	7	none
5/22	2	9	none
5/24- 5/26	7	16	none
5/27 - 6/1	0	16	none
6/2	1	17	none
6/2- 6/4	11	28	-
6/4	2	30	5- day
6/5	2	32	5-day
6/6	2	34	5-day

The weather event beginning late Thursday night into Saturday morning was significant for promoting conditions for late blight. If potatoes have not been sprayed now is the time for an application to prevent late blight.

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 4th. Any potatoes making greenrow after May 24 have also accumulated more than 18 DSV's as well.

P-day values, which are used to predict early blight and the need for protective fungicides, are now 252. Our threshold for p-day values is 500, so we are more than halfway. These were accumulating slowly due to the cool weather, but that has changed.

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/Copper 2 lb/A, or Ridomil Gold/MZ 2.5 lb/A.

Early Blight and Black Dot

Many fields are flowering or approaching flowering and this is a good time to consider switching to an application or two of Gem, Headline or Quadris (Amistar) for early blight susceptible varieties. This can also be helpful for late season varieties, including russets, if stress makes plants susceptible to black dot. Make one or two applications at the end of flowering and repeat 14 days later. Apply mancozeb or chlorothalonil 7-days later between the two applications.

Announcements

Pea Twilight Meeting

Wednesday June 22, 2005 6:00 p.m.

University of Delaware Research & Education Center

Walk through the late pea variety trial (planted April 18) and receive preliminary results from the early trial (planted March 7).

Bob Mulrooney will give an update on what's known about Asian soybean rust on lima and snap beans.

Enjoy food and refreshments (including Chesapeake Bay Crabs) at the conclusion of the walk-through.

No reservations are needed. For more information contact Ed Kee or Emmalea Ernest at (302) 856-7303

Pesticide Safety Training and Testing for Pesticide Applicators Certification

June 28 & 29, 2005

Kent County Extension Office

June 28 is training – 8:30 am – 4:30 pm. Training continues the morning of June 29, from 8:30 am – noon. The exam starts at 1:00 pm on June 29.

Be sure to bring your Workbook! You don't have to register for training, but you must register for the exam. Call DDA (302-698-4500) one week in advance to register for the exam. All the exams are closed book!! Bring your calculator for the calibration questions.

Delaware Organic Food & Farming Association Summer Social

Thursday, June 30, 2005 7:00 p.m.

Richard Swartzentruber Farm, Greenwood, DE

Go on a farm tour of certified organic animal and crop production. See rotational grazing, grass fed cattle, organic dairy, organic poultry, organic field crops, and organic vegetable production. Meet with other organic growers and just enjoy the fellowship.

There will be a brief organizational meeting. Refreshments will be provided. However, you are welcome to bring a snack to share with the group.

All those interested in organic farming are encouraged to attend!

For more information please contact Gordon Johnson at (302) 730-4000 or Richard Swartzentruber, President, DOFFA at (302) 349-5544

Directions:

Take Rt. 13 to Greenwood. At Greenwood go East on Rt. 36/16 for 0.5 mile to the traffic light. Turn Left on to Shawnee Rd. (Rt. 36) and go 1.25 mile. The Swartzentruber Farm is on the right, 12468 Country Lane.



Weather Summary

<http://www.rec.udel.edu/TopLevel/Weather.htm>

Week of June 2 to June 8, 2005

Readings Taken from Midnight to Midnight

Rainfall:

1.35 inches: June 3

0.01 inches: June 5

0.48 inches: June 6

0.30 inches: June 7

Air Temperature:

Highs Ranged from 92°F on June 8 to 62°F on June 2.

Lows Ranged from 68°F on June 8 to 55°F on June 2.

Soil Temperature:

75°F average.

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

Web Address for the U of D Research & Education Center: <http://www.rec.udel.edu>

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