



WEEKLY CROP UPDATE

UNIVERSITY OF DELAWARE COOPERATIVE EXTENSION

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Soybean Rust Update

Early this week soybean rust activity had increased with three new finds on soybean in sentinel plots in Georgia, southern Mississippi, and another county in Florida. All three sites had moderate incidence but low severity. The epidemic is still low and we are waiting to see what effect Hurricane Dennis may have had in distributing rust in the South. While spores have been found in spore traps in several southern states, infection of plants has not occurred at detectable levels yet. **All this means that it is still too early to begin fungicide applications for soybean rust control.**

The Diagnostic Clinic website address has changed during the update of the Extension website. This Diagnostic Clinic site is the home of our soybean rust information. The new address is
<http://ag.udel.edu/extension/pdc/index.htm>.

The toll-free Soybean Rust Hotline number is operational and a current message is available by calling 1-866-234-1347. The information presented here is for Delaware and Maryland. The information will be posted by me and Dr. Arv Grybaukas, Extension Plant Pathologist, University of Maryland.

Several of our listings of fungicides for soybean rust control have been updated and revised to reflect recent changes. The updated versions are available at the following links:

Section 3 and Section 18 products approved for SBR management in DE as of July 19, 2005:

<http://www.rec.udel.edu/update05/DEsbrFungicidesJuly19.pdf>

Application rates and restrictions for registered and Section 18 products for SBR in DE:

<http://www.rec.udel.edu/update05/SBRfungicideApplicationRates.pdf>

2005 SBR Fungicide Use Guidelines:

<http://www.rec.udel.edu/update05/05DEsbrFungicideGuidelines.pdf>

Uppercut, another tebuconazole fungicide for soybean rust has been added. Uppercut is from DuPont Crop Protection and the label is the same as for Folicur and Orius which are tebuconazole as well. These are available online and any Extension office can print them out for you.

The Soybean Rust Survey is in full swing. Six sentinel plots and 44 Soybean Board sponsored sites scattered throughout Delaware are being checked each week for soybean rust. The Delaware Department of Agriculture has supervised this effort and the survey staff was trained by Extension Specialists on soybean rust as well as soybean aphid identification. We were fortunate to find two very capable people, Zack Skibo and Ted Haas. This information is being posted on the national soybean rust website for our use as well as others around the country. For a map of the sites being surveyed follow this link

<http://www.rec.udel.edu/update05/SBRsentinalMap.pdf>

Bob Mulrooney

Vegetables

Vegetable Crop Insects - *Joanne Whalen, Extension IPM Specialist; jwhalen@udel.edu*

Lima Beans

Continue to scout the earliest planted fields for lygus bugs and stinkbugs. Treatment should be considered if you find 15 adults and/or nymphs per 50 sweeps. Capture, Mustang or Warrior are labeled for both species. The higher labeled rates will be needed if stinkbugs are the predominant insect present. You should also start scouting the earliest planted fields for corn earworm. A treatment will be needed if you find one corn earworm larvae per 6 ft-of-row.

Melons

Continue to scout all fields on a weekly basis for aphids, cucumber beetles and spider mites. As you begin harvest, be sure to watch for cucumber beetles feeding on the rinds.

Peppers

Corn borer trap catches have started to increase so be sure to maintain a 7 day spray schedule for corn borer control. In the Harrington area, a 5-7 day schedule is needed. Since trap catches can increase quickly at this time of year, be sure to check local moth catches in your area at <http://www.udel.edu/IPM/traps/latestblt.html>. You will also need to consider a treatment for pepper maggot. Since no threshold is available for beet armyworm (BAW) larvae, be sure to watch for the first small larvae as well as their feeding signs. You will also need to use a product like Spintor, Avaunt, or Intrepid which provide BAW control.

Snap Beans

Continue to scout all seedling stage fields for leafhopper and thrips activity. Sprays are needed at the bud and pin stages on processing beans for corn borer control. Since corn borer trap catches have started to increase, especially in the Harrington area, you will need to check our website for the most recent trap catches to help decide on the spray interval between the pin stage and harvest for processing snap beans (<http://www.udel.edu/IPM/traps/latestblt.html> and

http://www.udel.edu/IPM/thresh/snapbeanecbt_hresh.html). Once pins are present on fresh market snap beans and corn borers are being caught in local traps, a 7-day schedule should be maintained for corn borer control.

Sweet Corn

In most locations, fresh market, silking sweet corn should be sprayed on a 3-day schedule. Be sure to check trap catches for the current spray schedule since trap catches quickly change. Trap catches are generally updated on Monday and Thursday nights.

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



Vegetable Crop Progress - *Ed Kee, Extension Vegetable Specialist; kee@udel.edu*

Pickling Cucumbers

Yields of pickling cucumbers have been generally good. Growers have done a great job on jumping on top of the downy mildew that appeared two weeks ago. Fungicide applications and hot weather combined to reduce inoculum and allow everyone to get ahead of the problem. I looked at more than ten fields last Friday and Saturday, when thunderstorms and showers were very active. Despite that wet weather, the fungicides were stopping the advance of the disease and the new growth was clean. The scouts and consultants, along with our plant pathologists, did the industry a real service by detecting it early and then providing the information to control it. However, it is important to be real vigilante as the season continues.

Watermelons

Watermelon vines and the potential crop of seedless generally look good. Growers have done a good job combating diseases and insects. Many fields are as clean as I have seen in many years. Again, vigilance is important in keeping ahead of disease and insect problems.

Sweet Corn

Processing sweet corn harvest has started. Average yields are reported to date, although at

least one field exceeded nine tons. Many fields do look promising and should exceed nine or even ten tons.

Agronomic Crops

Agronomic Crop Insects - *Joanne Whalen, Extension IPM Specialist; jwhalen@udel.edu*

Field Corn

During the last week, we have received a few samples with feeding damage from corn blotch leafminer. Information from the Midwest generally indicates that feeding damage from the corn blotch leafminer seldom results in yield loss. More details can also be obtained at the following links:

(http://www.entm.purdue.edu/entomology/ext/targets/p&c/P&C2003/P&C16_2003.htm;
<http://ianrpubs.unl.edu/insects/nf374.htm>).

The following is a summary of information from the Midwest regarding this insect on field corn. "The corn blotch leafminer adult is a tiny fly, about 1/4 inch long. Flies lay eggs on corn leaf surfaces, and as they hatch, fly larvae (maggots) tunnel into corn leaves. They feed internally by scraping away green leaf tissue, leaving behind transparent tunnels or mines. As the maggots grow, the mines increase in width. When larvae are mature they drop off the plant and pupate in the soil. Pupae are about 1/4 inch long, brown, and cylindrical in shape. Adults emerge and start the cycle over."

There are no sampling methods or thresholds for this insect. In some fields, damage has been confined to field edges. In other fields, the damage appears more extensive. However, even if damage appears more extensive, information from the Midwest indicated that control efforts would probably have to be targeted at the flies before they lay eggs, as the fly maggot is protected inside the leaf from insecticides. In addition, multiple applications against the adults would likely be needed to reduce injury levels, and the expense would probably not be worth the benefit. Since economic infestations are so rare, studies have not been conducted to evaluate insecticide efficacy against this pest on corn. In most years, several species of parasitic wasps usually control the leafminer.



Corn blotch leafminer damage on field corn

Soybeans

Continue to scout fields for green cloverworm, grasshoppers and Japanese beetles. Japanese beetles and grasshoppers continue to be the predominant defoliators. At the prebloom stage, controls may be needed if you find 30% defoliation. This threshold decreases to 15% defoliation during the bloom and pod-fill stages.

Be sure to continue to check fields for spider mites. A treatment is recommended if you find 20-30 mites per leaflet or 10% of plants with 1/3 or more leaf area damaged.

Be sure to also scout fields on a weekly basis for soybean aphids. The action threshold - developed in the Midwest - is an average of 250 aphids per plant on plants sampled throughout the field. Spraying at or beyond R6 has not been documented to increase yield.



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

As mentioned last week, Septoria brown spot and downy mildew continue to be seen and this week I can add frogeye leafspot to the increasing list of soybean leaf diseases. Frogeye symptoms are small circular to irregular ashy gray spots with dark reddish brown borders. The centers of old spots often have numerous small black fruiting bodies that can be seen with a 10X hand lens.



Mulrooney

Froeye leafspot caused by *Cercospora sojae*



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

Technical Consolidation Takes Commodity Prices Lower

The fall out in new crop corn and soybean prices this week has caught many traders and fundamental analysts off guard. However, trading activity this week is viewed as profit taking on the part of large fund traders.

Whether new crop corn and soybean prices regain their recent levels (\$2.73 per bushel for Dec corn, a new crop contract high, and \$7.50 per bushel for Nov soybeans) depends largely upon the impact that recent weather developments have in the Corn Belt.

Speculators are currently standing aside until the effects of recent thunderstorms moving through the Corn Belt are known. In fact, it might not be until the release of the August 12th crop report that we know which direction '05 crop production is expected to move. For the moment, grain marketers are likely to stand aside until the fall out clears.

July U.S. Production Estimates Decline

USDA's July crop report placed the U.S. corn crop production estimate at 10.785 billion bushels, compared to 10.985 billion bushels a month ago and 11.807 billion bushels last year. The current ending stocks estimate is at 2.240 billion bushels, compared to 2.540 billion bushels a month ago and 2.115 billion bushels last year.

'05 U.S. soybean crop production was projected at 2.890 billion bushels, as compared to 2.895 billion bushels a month ago and 3.141 billion bushels last year. Ending stocks for U.S. soybeans were placed at 210 million bushels, compared to 255 million bushels a month ago and 290 million bushels last year.

Announcements

Pesticide Safety Training and Testing for Pesticide Applicators Certification

September 21 & 22, 2005

Delaware Dept. of Agriculture Conference Center
 Dover, DE

Weather Summary

http://www.rec.udel.edu/TopLevel/Weather.htm
Week of July 14 to July 20, 2005
Readings Taken from Midnight to Midnight
Rainfall:
0.28 inches: July 14
0.10 inches: July 15
0.87 inches: July 16
Air Temperature:
Highs Ranged from 92°F on July 19 to 84°F on July 14.
Lows Ranged from 76°F on July 19 to 72°F on July 14.
Soil Temperature:
88°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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Weekly Crop Update is Compiled and Edited By:

*Emmalea Ernest
Extension Associate - Vegetable Crops
University of Delaware*

Potato Disease Advisory #20 - July 21, 2005, Bob Mulrooney, Extension Plant Pathologist

Late Blight Advisory (18 DSV's Exceeded)

Disease Severity Value (DSV) Accumulation as of July 20, 2005 is as follows:

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

Date	Daily DSV	Total DSV	Spray Recommendation
6/28-6/29	3	51	7-day
6/29-6/30	3	54	7-day
6/30-7/1	2	56	7-day
7/1-7/2	2	58	7-day
7/2-7/4	0	58	7-day
7/5-7/5	2	60	7-day
7/5-7/6	3	63	7-day
7/6- 7/9	17	80	5- day
7/12- 7/13	2	82	10- day
7/13-7/14	3	85	7-day
7/14- 7/15	5	90	7-day
7/15- 7/16	5	95	7-day
7/16- 7/17	2	97	7- day
7/17- 7/18	1	98	7- day
7/18- 7/20	0	98	7-day

P-day value is now 570, which is used to predict early blight and the need for protective fungicides. Early blight sprays are recommended.

Maintain fungicide sprays for both late blight protection as well as early blight.

The hot weather will favor leak and soft rot bacteria if growers have the opportunity to dig soon. During harvest do your best to prevent wounding tubers. Leak caused by Pythium and the soft rot bacteria enter through wounds. Obviously soft rot is favored when soil is wet during harvest when lenticels are swollen. Do the best you can to dig when dry. Chlorine (25 ppm) in the wash water is highly recommended during conditions like this. Keep tubers as dry as possible after washing to prevent a film of water around the tubers that favor moving bacteria into the lenticels. Ridomil Gold or Ultraflourish at planting or as a foliar spray earlier should prevent leak.

In areas that had heavy showers and wet fields, aerial bacterial blackleg can be found causing wilting stems.