Soybean Rust Update

There have been several new detections of soybean rust in sentinel plots this week. Two of them bring soybean rust a little closer to DE and the Eastern Shore. The latest report of rust infected soybean plants is in Putnam County, Georgia. Rust also was confirmed in South Carolina for the first time in 2005; the SC find was in Hampton County. The Putnam County, GA find is the northernmost detection to date. The number of infections and the spore production in the South is still low and poses a low risk of spore movement and infection in DE. Recent weather patterns are indicating a low to moderate risk of spore movement into eastern North Carolina but it will be 10 days or more before any infections could be detected. Rust is still moving slowly allowing more soybeans to develop and reach late pod fill and eventually R7 which is the time when they are no longer at risk of rust causing any damage.

It is important to keep scouting soybeans once a week from flowering until Growth Stage 7. Our hats are off to our Soybean Board survey team, Ted Haas and Zack Skibo, who have been visiting each of the sentinel plots and Soybean Board plots (growers’ fields) each week during the very hot and humid weather, wading through soybeans up to their chests. It is hard work and they have done a great job. It is interesting, as a colleague pointed out recently, that all the soybean rust detections so far have been in sentinel plots or other fields that have been part of this early detection effort, such as our Soybean Board sponsored survey. There was some debate about the value of the system initially, but it has turned out to be an early warning system for the country as it was intended. Failure would be indicated by many finds in grower fields before, or at the same time, as the sentinel plots.

It is not over yet, but as time passes the threat becomes less. The survey will continue to the beginning of September. Have a rust free week.

Map of recent soybean rust detections in central Georgia and South Carolina.

Continue to check the websites and toll free number for updates:
http://www.sbrusa.net
DE/MD Soybean Rust Hotline 1-866-234-1347

Bob Mulrooney
Vegetables

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

Cabbage
Continue to sample fall planted fields for diamondback and cabbage looper larvae. We can find both larvae feeding in the hearts of plants. If both species are present, Avaunt, a Bt, Proclaim or Spintor will provide control. If cabbage looper is the predominant species, a pyrethroid, Intrepid, or Confirm will also provide control.

Lima Beans
Continue to scout fields for lygus bugs and stinkbugs. Treatment should be considered if you find 15 adults and/or nymphs per 50 sweeps. You will also need to scout for corn earworms. With the recent increase in corn earworm trap catches, moths will be very attracted to blooming fields, especially as corn begins to dry down. A treatment will be needed if you find one corn earworm larvae per 6 ft-of-row. Capture (bifenthrin), Mustang MAX, Lannate and Warrior are labeled for corn earworm control in lima beans. As you approach harvest, be sure to check the label for the days from last application to harvest.

Melons
Continue to scout all fields on a weekly basis for aphids, cucumber beetles and spider mites. We continue to find fields with beet armyworms and some rind feeding has occurred. The only material labeled on melons that will provide beet armyworm control is Spintor. The highest labeled rate should be used if larvae are large at the time of treatment.

Peppers
Maintain a 7-day spray schedule for corn borer control. In areas with high trap catches (> 10 per night), a 5-7 day schedule may be 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. Beet armyworm larvae and feeding damage can still be found in fields. You will need to use a product like Spintor, Avaunt, or Intrepid for BAW control. In addition, aphid populations have increased in a number of fields.

Snap Beans
Sprays are needed at the bud and pin stages on processing beans for corn borer control. As corn earworm pressure increases, remember that Orthene (acephate) has not provided effective earworm control. After the pin spray, be sure 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/snapbeanecbtresh.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
We are starting to see an increase in corn earworm trap catches so be sure to check trap catches for your area. With this increase in trap catches, fresh market sweet corn should be sprayed on a 2-3 day schedule in many locations. However, be sure to check trap catches for the current spray schedule since trap catches and spray schedules can 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/silspraythres.html. Continue to watch for fall armyworm feeding in the whorls. A treatment is needed if you find 12-15% of the plants infested. Multiple whorl applications are generally needed for fall armyworm control. In addition, you may need to combine a fall armyworm material with a pyrethroid for the first 2-3 silk sprays if fall armyworm pressure was heavy in whorls.
Lima Bean White Mold - Kate Everts, Extension Plant Pathologist, University of Maryland and University of Delaware; everts@udel.edu

With the onset of cooler temperatures and increasing rain, white mold is likely to become a problem in many lima bean fields. Appropriate fungicide applications increase yields 20% in heavily infested fields. White mold develops after a 6 to 10 day period when the soil surface has remained wet. If the first set will be harvested, time fungicides when 70 to 80 % of plants have open blossoms. However, if the second set will be harvested and soil conditions favor development of white mold, a later application also will improve yield. Excellent white mold control can be achieved with Endura 8 oz/A. Good white mold control can be achieved with Topsin M 1.2 to 2 lb 85 WDG/A.

Lima Bean Downy Mildew - Bob Mulrooney; Extension Plant Pathologist; bobmul@udel.edu

With the return of cooler night temperatures, dew, and wet weather, comes the threat of downy mildew in the fall crop. Last season some downy mildew was seen, but it was not widespread as in past years. Preventative applications of 2 lbs fixed copper, 2 lbs Ridomil Gold/Copper, or 4 pts Phostrol have provided control of downy in the past. The best controls continue to be Ridomil/Gold Copper or Phostrol, especially when disease pressure is high like last year. Application at flowering or when pods are first forming is recommended if weather is favorable for disease. If disease is present Ridomil/Gold copper and Phostrol have shown to provide some curative activity if applied when downy mildew is first seen. Be sure to have a copy of the label on hand since Ridomil/Gold Copper and Phostrol have 24c labeling in DE.

Labels are available on line at:
http://www.rec.udel.edu/update05/LimaRidomilGoldCopper.pdf
http://www.rec.udel.edu/update04/24%20c%20label%20final%20(6-7-04).pdf Note: this label is valid until June 1, 2006

Agronomic Crops

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

Alfalfa
Continue to scout fields for potato leafhopper adults and nymphs. A treatment is needed if you find 20 per 100 sweeps in alfalfa 3 inches or less in height; 50 per 100 sweeps in 4-6 inch tall alfalfa; 100 per 100 sweeps in 7-11 inch tall alfalfa and 150 per 100 sweeps in alfalfa 12 inches or taller in height.

Soybeans
Grasshoppers and green cloverworms are the predominant defoliators in soybeans at this time. Before bloom, the defoliation threshold is 30%. During the bloom to pod fill stage, the defoliation threshold decreases to 15% defoliation. Unfortunately, we do not have a threshold for the number of green cloverworms per sweep.

Continue to scout fields on a weekly basis for soybean aphids. We are still finding low levels in all 3 counties; however, populations have increased since last week. If temperatures remain cooler we could see a spike in populations. The treatment threshold is 250 aphids per plant through growth stage R5. In general, spraying at or beyond R6 has not been documented to increase yield. However, in some situations in the Midwest, treatment at the R6 stage has been needed if populations are still increasing and plants are under stress. Yield losses have been documented in the Midwest and Canada at both the R5 and R6 stages under certain circumstances.

You will need to start sampling soybean fields for earworms. In most cases, full season fields should escape damage; however, it will be important to check those fields at least 1-2 times to be sure that you do not miss an infestation. Growers in Virginia and in some southern Maryland locations are starting to find corn earworm as well as a few beet armyworms. As in most years, double crop fields will be most susceptible to attack. With the recent increase in corn earworm trap catches, open canopy
blooming fields will be attractive to egg laying moths. A treatment should be considered if you find 3 per 25 sweeps in narrow fields and 5 per 25 sweeps in wide row fields (20 inches or greater).

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

Where moisture has been plentiful soybeans look great. There are still some low levels of Septoria brown spot and frogeye leafspot on leaves in the upper canopy in some fields. Most years fungicides applied for foliage disease control have not resulted in yield increases. From a plant pathology point of view, fungicides applied for disease control protect the yield potential present, not increase yields. R4 (full pod, 3/4" pod in top 4 nodes) is the latest you could apply a fungicide for disease control and expect to get results. There have been a few isolated cases this season where frogeye leafspot was severe enough to warrant an application of fungicide. This is unusual for us but the combination of very favorable weather and a susceptible variety can justify making a fungicide application to control a disease.

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

‘05 Crop Size Remains Uncertain
Grain market analysis since the release of the August 12th crop report has been all over the waterfront. Using the U.S. corn supply and demand balance sheet as an example, USDA’s August estimate lowered the U.S. corn production estimate to 10.350 billion bushels, a whopping 435 million bushel decrease from a month earlier. This would normally be viewed as price friendly to the corn trading pit; however, certain obstacles have seemingly gotten in the way. First, the mantra since the release of the report has been, “look at the size of the carryover, now projected at 1.9 billion bushels.” That’s true, but look at the size of this marketing year’s carry in at 2.110 billion bushels. So, it might be argued that the carryover estimate is getting too much attention at this point in time. Besides, we haven’t answered the $64 question as yet and that is, “Is this corn crop likely to get smaller in forthcoming production estimates?” The answer to that question is likely to be yes, crop size is likely to get smaller. Second, the funds are still in this game. The funds will continue to add volatility to these markets.

Looking ahead there are other considerations that need to be taken into account before forming an opinion on grain marketing. The cost of growing corn in the ’06 crop year is going to be astronomically higher than it has been historically, which is likely to add another estimated $50.00 per acre to the cost of production. Will the cost of growing corn cause a shift in production, away from corn acres? Farmers that are growing corn for grain will be taking a hard look at that consideration and may well decide that $2.50 Dec ‘06 corn futures is simply not enough.

**Market Strategy**
One of the things that needs to be avoided is panic selling, for several reasons -- the most important reason being that one can easily lose sight of price objectives. All things considered, and perhaps a contrary viewpoint, advancing pre-harvest sales at this point in time is not recommended unless one has corn or soybeans that do not have a home. For that portion of the crop it may be necessary to place forward contracts, otherwise, plan to store unpriced corn and soybeans.

**Grain Marketing Highlights**

**Herbicides Around Poultry Houses** - Mark VanGessel, Extension Weed Specialist; mjv@udel.edu

The following is a list of products labeled AND recommended for use around the outside of poultry houses.
Pramitol and Karmex will provide long-term residual control (length of control varies with rate used); but will not control emerged weeds.

Glyphosate and Garlon will control emerged plants but will not provide much residual control.

Imazapyr will control many species both as a postemergence and as residual control. Imazapyr is available as a pre-packaged mixture with Karmex called Sahara or as a pre-packaged mixture with glyphosate called Journey.

Poultry houses are not specifically listed on the pesticide labels; it is listed as “around farm buildings”. So these products can not be used inside the houses. If spraying near intake vents, I would suggest shutting off the fans when spraying so that herbicide drift does not enter the poultry houses. None of these herbicides are considered volatile, so once the spray is dry, the herbicide should not move off target.

**Potato Disease Advisory #28 - August 18, 2005, Bob Mulrooney, Extension Plant Pathologist**

**Late Blight Advisory - This is the last report for 2005**

Disease Severity Value (DSV) Accumulation as of August 17, 2005 is as follows:
Location: Joe Jackewicz Farm, Magnolia, DE. Greenrow: May 4, 2005

<table>
<thead>
<tr>
<th>Date</th>
<th>Daily DSV</th>
<th>Total DSV</th>
<th>Spray Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/20-7/25</td>
<td>0</td>
<td>98</td>
<td>10-day</td>
</tr>
<tr>
<td>7/25-7/26</td>
<td>1</td>
<td>99</td>
<td>10-day</td>
</tr>
<tr>
<td>7/26-7/27</td>
<td>1</td>
<td>100</td>
<td>10-day</td>
</tr>
<tr>
<td>7/27-7/28</td>
<td>1</td>
<td>101</td>
<td>10-day</td>
</tr>
<tr>
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<td>7-day</td>
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<td>7/30-7/31</td>
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<td>106</td>
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<td>7/31-8/1</td>
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<td>8/10-8/11</td>
<td>2</td>
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<td>4</td>
<td>135</td>
<td>7-day</td>
</tr>
</tbody>
</table>

P-day value is now 750, which is used to predict early blight and the need for protective fungicides. Early blight sprays are recommended.

Maintain fungicide sprays for early blight and late blight if you have vulnerable potatoes at this time. No late blight has reappeared in potatoes or tomatoes locally.

This is the last report unless something unusual happens. This season long report was part of our IPM efforts to provide information to help growers make effective fungicide applications. Funding for the weather data service, ZedEx Inc., was provided by Joanne Whalen, Extension IPM Specialist, and is gratefully acknowledged.
Fall is the best time to reseed, overseed, and establish pastures. However, the herbicides you may have used during the summer could still be at concentrations in the soil that will injure or kill grass seedlings. The following is a table on length of time to wait between application of the herbicide and replanting another crop or overseeding.

<table>
<thead>
<tr>
<th>Herbicide</th>
<th>Forage Grasses</th>
<th>Alfalfa &amp; Clovers</th>
<th>Small Grains</th>
<th>Row Crops</th>
<th>Vegetables</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,4-D</td>
<td>NS*</td>
<td>NS</td>
<td>NS</td>
<td>0+</td>
<td>NS</td>
</tr>
<tr>
<td>Banvel or Clarity</td>
<td>15 days/½ pint</td>
<td>120 days</td>
<td>0</td>
<td>0+</td>
<td>AH</td>
</tr>
<tr>
<td>Cimarron</td>
<td>0-18 mo.</td>
<td>12 mo.</td>
<td>1-10 mo.</td>
<td>1 mo. +</td>
<td>34 mo.</td>
</tr>
<tr>
<td>Crossbow</td>
<td>21 days</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td>Overdrive</td>
<td>1 mo.</td>
<td>1 mo.</td>
<td>1 mo.</td>
<td>1 mo.</td>
<td>1 mo.</td>
</tr>
<tr>
<td>Stinger</td>
<td>12 mo.</td>
<td>10.5 mo.</td>
<td>0</td>
<td>0+</td>
<td>12 mo.+</td>
</tr>
<tr>
<td>Glyphosate</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*NS means next season and AH means after harvest

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**Weather Summary**

Week of August 11 to August 17, 2005

Readings Taken from Midnight to Midnight

**Rainfall:**

- 0.17 inches: August 16
- 0.11 inches: August 17

**Air Temperature:**

- Highs Ranged from 93°F on August 12 and August 13 to 81°F on August 16.
- Lows Ranged from 77°F on August 12 to 67°F on August 17.

**Soil Temperature:**

- 88°F average.
  (Soil temperature taken at a 2 inch depth, under sod)

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**Announcements**

**Pesticide Safety Training and Testing for Pesticide Applicators Certification**

September 21 & 22, 2005
Delaware Dept. of Agriculture Conference Center
Dover, DE

Web Address for the U of D Research & Education Center:  [http://www.rec.udel.edu](http://www.rec.udel.edu)

**Weekly Crop Update is Compiled and Edited By:**

Emmalea Ernest
Extension Associate - Vegetable Crops
University of Delaware

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