



WEEKLY CROP UPDATE

UNIVERSITY OF DELAWARE COOPERATIVE EXTENSION

Volume 14, Issue 24

September 8, 2006

Soybean Rust Update

The latest report of soybean rust comes from a sentinel site in Florence County in eastern South Carolina (9-07). Soybean rust was also reported previously (9-06) on soybeans in a sentinel site in Jackson County in south-eastern Mississippi. Currently rust has been found infecting this year's soybeans in 21 different counties in seven states: AL, FL, GA, LA, MS, SC, and TX.

The effect of the recent storm Ernesto is still unclear, but the storm did not produce the same amounts of rainfall in FL and GA that fell north in SC, NC, and VA. SC reports that the incidence of rust in South Carolina is still relatively low, but conditions are favorable for rust to spread within and between fields. The spore source down South is still considered weak. There are still no reports of any rust north of South Carolina. Most soybeans in DE are at R6 and beyond and would not need any controls. We are continuing to sample our sentinel plots. The MG III variety is now at R8 and is no longer being sampled. The MG V is at R5 in most locations and is being sampled currently. Double crop soybeans in grower fields will continue to be checked as long as there is green foliage present.

Bob Mulrooney

Vegetables

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

Cabbage

Continue to scout all fields for beet armyworm, fall armyworm, diamondback and cabbage looper larvae. Be sure to apply treatments before larvae move deep into the hearts of plants.

Lima Beans

Continue to scout all fields for lygus bugs, stinkbugs, corn earworm, fall armyworm and beet armyworm.

Peppers

Be sure to maintain a 5 to 7-day spray schedule for corn borer, corn earworm, beet armyworm and fall armyworm control. You should also watch for flares in aphid populations.

Snap Beans

All fresh market and processing snap beans will need to be sprayed from the bud stage through harvest for corn borer and corn earworm control. In addition, the highest labeled rates may be needed if population pressure is heavy in your area.

Spinach

Continue to sample emerged fields for webworm and beet armyworm larvae. Controls should be applied when worms are small and before they

have moved deep into the hearts of the plants. Generally, at least 2 applications are needed to achieve control of webworms and beet armyworm.

Sweet Corn

Fresh market, silking sweet corn should be sprayed on a 2-day schedule.

Downy Mildew on Limas - *Bob Mulrooney*; *Extension Plant Pathologist*; bobmul@udel.edu

With the return of significant rain in most areas, the threat of downy mildew and white mold increases. Be sure to scout regularly for symptoms of these two important diseases of limas. Remember that the best predictor for most situations is the Hyre-Cox model that states that conditions for downy mildew are favorable when fields receive 1.2 inches or more of rain within 7 days and the average daily temperature during that period is 78° F or less. Heavy dew and/or fog reduces the amount of rainfall needed to provide favorable conditions.



B. Mulrooney

Photo 1. Downy mildew on limas is characterized by white downy growth on the pods, petioles and racemes. A reddish brown border often surrounds the infected area on the pods.



B. Mulrooney

Photo 2. Downy mildew on petioles and stems often produces the distorted "crooks" seen in this picture.



B. Mulrooney

Photo 3. White mold on snap beans or lima beans is characterized by dense white cottony growth. All plant parts can be infected as the fungus grows from initial infection of flowers and pins to stems and leaves.

Agronomic Crops

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

Alfalfa

Continue to sample fields on a weekly basis for leafhopper adults and nymphs as well as defoliators, especially webworms and fall armyworms.

Soybeans

Be sure to continue to sample all fields that are in the pod development and pod fill stages for stinkbugs. We have had reports of increases in stinkbug populations in double crop fields. We are currently following the same treatment guidelines that are being used in Virginia: 1 large nymph/adult (either brown or green stink bug) per row foot if using a beat sheet, or 2.5 per 15 sweeps in narrow-row beans, or 3.5 per sweep in wide-row beans.

Corn Earworm in Soybeans—As a result of the high corn earworm moth pressure before the rains, we can still find pod feeding and economic levels of corn earworm larvae in fields this week. In general, mixed sizes of larvae can be found in fields. Since populations are still varying from field to field, the only way to know if you have an economic level will be to scout.

A treatment should be considered if you find 3 corn earworm larvae per 25 sweeps in narrow fields or 5 per 25 sweeps in wide row fields (20 inches or greater). **Although diseases can help to crash populations, you generally need a combination of rainy weather, cool evenings and warm days for a week to see populations crashing from disease organisms.** So be sure to watch for diseased worms when making a treatment decision. The following materials are labeled for corn earworm control in soybeans: Asana, Baythroid, Mustang MAX, Proaxis, Warrior (all pyrethroids), Larvin, Lorsban or Steward. As a reminder, the mid-rate of the pyrethroids should be used since population pressure is heavy and in many cases treatments will be applied when a mixture of larval sizes are present in fields. Larvin and Steward act by



B. Mulrooney

Photo 4. When white mold infection is advanced, the fungus produces hard black overwintering structures called sclerotia. The presence of these confirms the presence of white mold.



B. Mulrooney

Photo 5. Lima bean pod rot is caused by *Phytophthora capsici* and is usually seen in wet areas of the field initially on pods in contact with the soil. It can spread within the canopy from the initial infection on the pods contacting the ground. The fungus here has the appearance of granulated sugar and is not as “downy” looking as downy mildew.

ingestion on both small and large larvae. Remember that if you are using a pyrethroid, the primary mode of action on large larvae will be ingestion. Earworms will need to feed to cause death so you will not see immediate activity from the contact action. Once they ingest the product, they immediately stop feeding. Therefore, fields should not be evaluated for control until 4 days after application. *Small larvae are generally killed by contact as well as ingestion.* It is important that you do not look at fields 1-2 days after spraying and assume control failure if large worms are present. This could result in unnecessary re-sprays. We continue to find beet armyworms in some fields. If the predominant pest is beet armyworm (BAW), the pyrethroids will not provide control. Steward will provide effective BAW control. In addition, Intrepid received a soybean label this year and will provide effective BAW control (<http://www.cdms.net/dat/ld61K020.pdf>). In grower demonstration trials in 2002, Lorsban also provided good BAW control. **Be sure to check all labels for the days from last application to harvest as well as other restrictions.**

Small Grains

As you make plans to plant small grains, you need to remember that Hessian fly can still be a problem. Since the fly survives as puparia ("flax seeds") in wheat stubble through the summer, you should still consider this pest as you make plans to plant small grains. Although we have not seen widespread Hessian fly problems for a few years, we continue to see isolated fields with problems. In most cases, damage has been the result of spring infestations. Plants attacked in the spring have shortened and weakened stems that may eventually break just above the first or second node, causing plants to lodge near harvest. The traditional method of control is based on delaying planting until after flies have emerged. Warm fall weather conditions can extend fly emergence and egg-laying beyond the fly-free dates, but these dates should still be used as a guideline for planting. Since we rarely see plants stunted in the fall, we still feel that most of the damage we see is occurring from spring infestations. Plants attacked in the fall at the one-leaf stage may be killed outright.

Wheat attacked later in the fall will be severely

stunted, with the first tillers killed and plant growth delayed. Plants infested in the fall can easily be recognized by their darker than normal bluish coloration and leaves with unusually broad blades. Combinations of strategies are needed to reduce problems from Hessian fly:

- Be sure to completely plow under infested wheat stubble to prevent flies from emerging.
- Avoid planting wheat into last season's wheat stubble, especially if it was infested with Hessian fly.
- Avoid planting wheat next to last season's wheat fields - the most serious infestations can occur when wheat is early planted into wheat stubble or into fields next to wheat stubble.
- Eliminate volunteer wheat before planting to prevent early egg-laying.
- Do not use wheat as a fall cover crop near fields with infestations.
- When possible, plant after the fly-free date. (Oct 3 - New Castle County; Oct 8 - Kent County; Oct 10 - Sussex County).
- Plant resistant varieties. You should look for varieties that have resistance to Biotype L. Although some of these varieties may not be appropriate for Delaware, the following is a list of varieties from North Carolina that have exhibited good resistance to Biotype-L (the predominant biotype found in Delaware): P 26R12, P 26R38, P 26R61, Roane, USG 3350, and USG 3430.

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

A Look Ahead

The next crop report will be issued on September 12th. In that report, USDA projections concerning '06 U.S. corn and soybean yields will be based upon field surveys and hence should become a more accurate indicator of the size of this year's row crop production. Two big questions will be answered. First, 'Will USDA decrease the '06 U.S. corn production estimate

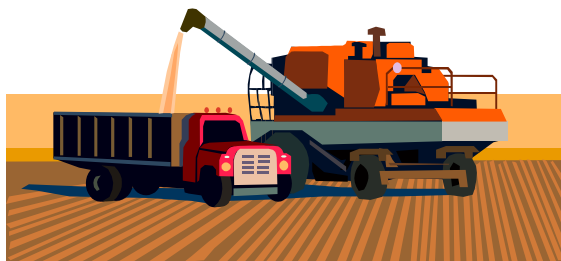
as currently expected? And, second, 'Will the soybean production estimate be increased?' Regardless of the scenario that develops, the resulting impact on near term corn and soybean prices will depend in large part upon the size of the adjustments. Large production and large carry in for both crops equates to abundant supply to get the U.S. through the '06/'07 marketing year. The primary impact from possible said adjustments to the production estimates will be noticed in the harvest time price lows for each crop. For example, a smaller corn production estimate would likely add value to the low side of price expectations. Instead of new crop corn Dec futures dropping to the \$2.15 to \$2.25 level, we'd likely raise the ante to a low of \$2.25 to \$2.35 per bushel. A word of caution, even though the fundamentals (supply and demand) may indicate a particular high or low in a commodity price during a given time period, commodity fund speculators generally bid prices higher or lower than the fundamentals indicate. In the event that we see an increase in the soybean production number, then we are almost assured that new crop Nov soybean futures would head for the \$5.00 level.

Looking ahead the yield reports are important because they will make a difference in how corn and soybean prices are bid this fall and winter. A 2 to 4 bushel difference in the production estimates, particularly for corn, will determine whether we have an urgent need to get prices higher in order to ration supply and the other means that the buyers can take their time throughout the winter. Ultimately, it is held by many private market analysts that corn prices have to bid higher, after working through the '06 harvest, in order to ration supply. After the first of the year corn prices need to bid higher in order to bid for corn acres. Estimates suggest that the U.S. will need to plant another 4 to 5 million acres of corn next year in order to keep pace with demand, both domestically and abroad. Indications are strong that by the time we get into the '08 production year then we may begin to see supply shortages for both U.S. corn and soybeans.

Market Strategy

New crop corn and soybean prices are likely headed lower from current levels into the '06

harvest season, regardless of the production estimates made in the September report. New crop Dec '06 corn futures are now trading at \$2.40 per bushel and Nov '06 soybean futures are at \$5.46 per bushel. Corn basis for the Northern and Southern Eastern Shore ranges from 4 to 18 over. The soybean basis ranges from 8 under to 27 under. These price offerings and basis offers equate to local forward cash offers of \$2.44 to \$2.58 per bushel for corn and \$5.38 to \$5.19 per bushel for soybeans. Assuming that pre-harvest sales are completed, it is advisable to store the remaining portion(s) of '06 corn and soybean production.



Announcements

Severe Deer Damage Assistance Program (SDDAP)

Permits obtained through the Severe Deer Damage Assistance Program will allow antlerless deer to be harvested from August 15, 2006 through May 15, 2007 on enrolled farms.

For more information on enrolling in the SDDAP, contact Joe Rogerson with the Division of Fish and Wildlife at (302) 653-2882.



Weather Summary

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

Week of August 31 to September 6, 2006

Readings Taken from Midnight to Midnight

Rainfall:

0.01 inch on August 31, 2006

4.23 inch on September 1, 2006

0.34 inch on September 2, 2006

0.01 inch on September 3, 2006

0.73 inch on September 5, 2006

0.01 inch on September 6, 2006

Air Temperature:

Highs ranged from 80°F on September 4 to 69°F on September 1, 2006.

Lows ranged from 67°F on August 31 to 58°F on September 3.

Soil Temperature:

70°F average.

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

The Weekly Crop Update is available online at <http://www.rec.udel.edu/TopLevel/Publicat.htm>

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

Cooperative Extension Education in Agriculture and Home Economics, University of Delaware, Delaware State University and the United States Department of Agriculture cooperating. Distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914. Delaware Cooperative Extension, University of Delaware. It is the policy of the Delaware Cooperative Extension System that no person shall be subjected to discrimination on the grounds of race, color, sex, disability, age or national origin.

