



FIELD CROP NEWS



August 2007



Cotton Insect Update

Bollworms

Although the bollworm moth flight is now present throughout North Carolina, you wouldn't know it in some areas due to the low moth numbers. Trap numbers are "all over the board" this week, generally far lower at this time compared with any of the past three years. Given the increased corn acreage and hot dry conditions that we normally associate with high levels of bollworm moths, I expected much higher moth numbers and associated bollworm problems than has been the case. A few local areas have produced good numbers, however. The light trap at John's, North Carolina had a three-day past Monday count of 377 moths, with the other two Scotland County traps accounting for approximately 150 moths each. The underground bollworm pupal stage seems to have the capacity to remain in that state during dry conditions, and then emerge as moths after a penetrating rainfall. Also, both bollworm moths and stink bugs often gravitate toward areas that have received higher moisture levels, so watch for higher levels of both of these pests in ranker cotton and lower levels in cotton which has begun to "cut out." We saw this dramatically in a graduate student class yesterday in which a large cotton field graded from a higher dry area of "cut out" cotton and a lower area with plenty of moisture. Stink bugs and bollworm moths were easy to find in low area of the fields and essentially non-existent in the upper dry area. Threshold levels of bollworms that have been found this past week have been mostly developing on small bolls in both conventional and on Bollgard cotton, and less in the terminals.

Pests in Peanuts

For a majority of the peanut producing areas, insect and mite problems have been a real "hit or miss" affair this year. Most fields have not suffered from corn earworms or mites this summer. The hot, dry weather throughout many areas has made us nervous about spider mites, but the lack of worm problems and avoiding foliar insecticides has certainly helped us. Fields that have been treated with Lorsban or other chlorpyrifos products do need to be scouted frequently, however.

There have been a couple of reports of beet armyworms in peanuts. These sometimes occur during dry years. They don't feed as much as the other caterpillars, but their numbers can be very high, and given enough of them, they can damage peanuts. Most of our pyrethroid insecticides do not do a great job against beet armyworms, but Steward has proven effective against them and Tracer does a good job as well. We do need to watch for caterpillars (and spider mites) throughout the month of August.

Harvest Considerations For Corn

There has been substantial damage to the corn crop in many areas of the state due to drought. Following are a few observations and recommendations to consider before harvest.

1. Drought-stressed corn often is susceptible to fungi such as *Aspergillus Flavus* that produce mycotoxins. Mycotoxins like aflatoxin or fumonisin are harmful to livestock and humans. By law corn with high mycotoxin levels cannot be sold and should not be harvested. Therefore, it is essential that growers scout their fields for visible signs of gray-green or white mold and then assess whether mycotoxins are present. Growers should conduct a thorough field sampling and look for the presence of a gray-green mold in the kernels at the tip or base of the ear OR for the presence of a white mold or white starburst pattern in the kernels at the tip of the ear. Most likely the presence of either of these symptoms indicates that *Aspergillus Flavus* or *Fusarium* has developed in the field. These fungi infect corn that has been subjected to drought stress or other damage during the growing season.
2. If the corn is moldy, the next step is to conduct a thorough and intensive scouting program for aflatoxin and/or fumonisin. In most years, this infection would be well below the permissible concentration of 20 parts per billion as established by the Food and Drug administration. However, humid conditions during kernel development, the stress caused by dry conditions, and/or rainfall after physiological maturity will enhance the infection in the field. By scouting prior to harvest (which means taking a sample and having it analyzed at the NCDA lab or a grain handling facility equipped with the proper test kit), farmers can determine if they have a problem and make plans for handling grain affected by aflatoxin or fumonisin. The NCDA lab can test corn samples for aflatoxin. They require a 5 pound sample. Contact your local NCDA agronomist to arrange for testing. It is no longer legal to blend corn that has aflatoxin concentrations greater than 20 ppb. In cases where concentrations of aflatoxin are measured over 20 ppb the only option is to dispose of the grain as a toxic substance. Most often this means spreading it back on the field and incorporating it into the soil. Obviously, a producer would be better off not harvesting aflatoxin contaminated corn. This is where a good scouting program will pay off.

Harvest Early to Avoid Addition Infection

If you find mold damage, but aflatoxin or fumonisin levels are low (less than 20 ppb for aflatoxin), plan to harvest the grain as soon as possible to minimize the spread of the infection. Harvesting at 25+ % moisture and drying to 15.5% moisture will reduce harvest losses considerably when compared to waiting until the corn dries down to 15.5%. This is probably the most important step that should be taken in salvaging this year's crop.

Soybean Rust Update

Asiatic soybean rust has been confirmed on soybeans in Louisiana, Texas, Oklahoma, and Arkansas during the past two weeks, but there have been no new finds east of the Mississippi River. The closest rust to North Carolina confirmed to date remains in Florida, as we reported on July 16th. The Marion County site represents the closest rust found on soybeans to date for Elizabeth City (595 miles), Fayetteville (440 miles), Raleigh (490 miles), little Washington (525 miles), and Wilmington (420 miles). The Gadsden County find was at the research station near Quincy, and represents the closest rust found on soybeans to date for Charlotte (390 miles), Murphy (315 miles), and Winston-Salem (455 miles on soybeans).

Bladen County Voluntary Agriculture District (VAD)

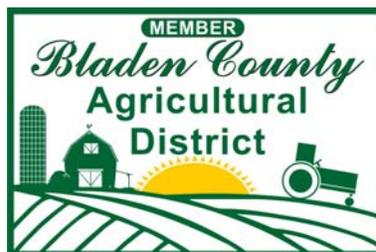
On June 4, 2007, the Bladen County Commissioners approved Bladen County to become part of the Voluntary Agriculture District (VAD) program. The purpose of this program is to encourage the voluntary preservation and protection of farmland from non-farm development. The Bladen County Voluntary Agricultural Districts will be governed by an Agricultural Board composed of five members. These members will be appointed by the Bladen County Board of Commissioners.

To be qualified for the Voluntary Agriculture District program, farmland must:

- Have a FSA issued farm or tract number
- The property shall be certified by the USDA FSA, NRCS, Bladen County Extension, and the Bladen SWCD as being a farm on which at least two-thirds of the land is composed of soils that: Have good farming qualities and are favorable for crops, livestock, ornamentals, Christmas trees or timber common to Bladen County.

You can enroll your farm in the program by picking up an application from the Bladen County Cooperative Extension Office and returning the completed application with a check payable to Bladen County Cooperative Extension in the amount of \$65.00. This \$65.00 will provide you a membership sign for your farm.

For applications and information, contact Bladen County Cooperative Extension.



North Carolina State University and North Carolina A&T State University commit themselves to positive action to secure equal opportunity regardless of race, color, creed, national origin, religion, sex, age, or disability. In addition, the two Universities welcome all persons without regard to sexual orientation. NC State University, NC A&T State University, US Department of Agriculture and local governments cooperating.

Sincerely,

A handwritten signature in black ink, appearing to read "Ryan Harrelson".

Ryan Harrelson
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