



INSECTS AND WEEDS IN FOCUS

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GENERAL CROP CONDITIONS

Growing conditions for crops, especially cotton, have not been favorable until the past few days, and we need sunshine to really make a difference. Temperatures are also expected to increase and correct some problems being encountered. Rainfall has been real good in the northern Coastal Bend, but rain would be welcome in the southern regions as it was missed during the past week. **Cutworms** remain a concern in young cotton. Their numbers have been higher and more widespread than in past years. Generally where **cotton aphid** was present **scymnus lady beetle** larvae (white and look like ashes on the plant) and parasitic wasp activity have increased to high levels. We suddenly caught fairly high numbers of **tobacco budworm moths** in pheromone traps this week. In corn people are still concerned about **corn earworm** in plant whorls. Control is not justified. In sorghum the **yellow sugarcane aphid** is still present and should be watched. In most cases their numbers are declining and should not be a problem for the rest of the season. Sorghum is blooming in many fields, and there are many fields near these that will not be blooming for another 3-4 weeks. I suspect that **sorghum midge** will be a serious problem in the late sorghum this season. Make plans now to devote a lot of time scouting the late sorghum. RDP

NORTHERN CORN LEAF BLIGHT OBSERVED

Some corn hybrids in Bee, Karnes, Jackson, Matagorda, and Wharton counties have developed leaf lesions which are the result of Northern Corn Leaf Blight. (NCLB). Treatment is suggested only if sufficient lesions are present on foliage to cause subsequent leaf area loss above the ear. Multiple lesions will often fuse so that all nutrient flow in the leaf is stopped. The upper leaves (above the ear) are important to finishing the crop, particularly if the lower leaves are already diseased.

There has been quite a rush of chemical dealers recommending the use of Headline (pyraclostrobin), Quadris (azoxystrobin) or Tilt (propiconazole) to

control rust or leaf blight. Be aware that every year we have random lesions in our corn on susceptible hybrids. This is something we just "live-with" because there is no economic damage to yield, and is usually only cosmetic leaf damage. Yield losses can occur if the disease is prevalent before silking (that means it is heavily covered with lesions above and below the ear site). If an infection increases six weeks after silking, it does not affect yield. Fungicides are recommended (economical) for seed corn or sweet corn. Otherwise, resistant hybrids should be used. Most seed corn companies have ratings from 1-9 for NCLB resistance.

The development of NCLB lesions occurs when the spores are present and there are both high humidity/dew and lower temperatures. Conidia can germinate in 6-18 hours when temperatures remain from 50°F to 78°F for extended periods. Lesions can develop in 7-12 days. Some resistant corns contain an Ht gene which inactivates the fungus by releasing chemicals. Small, chlorotic (pale yellow) lesions can still develop, but are less likely to cause leaf area losses. Corn can tolerate considerable losses in leaf area before yield is significantly impacted. This depends on the growth stage when the attack occurs, and the number of lesions developing.

Tom Isakiet provided the following information when we had our last outbreak of NCLB in 2004. Quadris or Tilt (both Syngenta products) are both labeled for Northern Corn Leaf Blight. Tilt is more effective than Quadris in "stopping power". Quadris is more of a prevention or follow-up spray. Preharvest intervals are listed for Tilt (14 days sweet corn and 30 days all other corns). If the weather is getting warmer, treatment may not be warranted because NCLB will cease to be a problem when day and night temperatures increase. These fungicides usually cost more than \$25/A, so the crop needs to be fairly valuable to justify spending (contract popcorn or seedcorn). Field corn usually doesn't get sprayed. Quilt is a mixture of Tilt and Quadris (Syngenta), and has been observed to improve control protection. It would take 5 bushels of \$5/bu corn to pay for such a treatment.

As previously stated, warm and sunny weather usually stops the infection process from spreading. At that point you only have to deal with the lesions already present. If there are great numbers of lesions on the same leaves, they may fuse and cause substantial leaf loss and possibly yield reductions. SDL

COTTON FLEAHOPPER MANAGEMENT IN 2007 COASTAL BEND COTTON



Fig. 1. Fused NCLB lesions observed in 2004.



Fig. 2. Common rust pustules alongside random NCLB lesion. Many of the leaves being brought in for identification are not NCLB, but are physical (wind) damage, halo's, or other leaf diseases.



Fig. 3. NCLB resistant corn with Ht gene, limits damage to leaf (halo).



Fleahopper nymph



Fleahopper adult

The cotton fleahopper can cause serious delay in cotton harvest and yield loss under the correct circumstances and numbers. In Coastal Bend cotton the general treatment threshold is 15 or more fleahoppers per 100 plants during the first 3 weeks of squaring, and we have observed yield increases when 1 or 2 insecticide treatments were applied based on treating at this number where populations in the nontreated cotton continued to increase above 30-40 fleahoppers per 100 plants. However, there are exceptions to the need for treatment when plants first begin squaring. For example, last season under severe drought conditions, keeping the very earliest squares was not the thing to do; it was best for the plants to shed a fairly high percentage of those squares in order to obtain more plant growth before being slowed by the fruit load. In a 2006 study conducted near Robstown, the average number of fleahoppers 3 and 6 days after a treatment was applied numbered more than 40 per 100 plants in the nontreated plots, but no yield increase was observed in the treated plots. In fact, the average lint yield for the 9 insecticide treatments evaluated was 1018 lb; whereas, the nontreated plots averaged 1063 lb.

In some of the 2007 cotton along the coast that was severely stunted by the cold weather with 3-4 very shortened internodes from the first true leaf through the 5th leaf another situation is created where retention of nearly all the earliest squares is likely to be detrimental to fruit loading. In this case, I think it best to wait until plants have several fruiting sites before applying the first treatment for fleahopper if and when numbers warrant. If cloudy conditions persist we may have additional fruit loss from that situation as well. My guess is, however, that clear conditions will be more likely over the next several weeks. In other words, on cotton showing the "node stacking" caused by the earlier cold weather and square loss to currently cloudy conditions it is probably best to wait until late in the first week in May to treat for the fleahopper. As the later planted cotton with longer internodes begins to square, it might be acceptable to treat earlier for fleahopper. Finally, remember it will be very difficult to harvest cotton bolls close to the ground.

It appears to me that fleahopper populations will be relatively high earlier than the past few years based on numbers being found at this time (adults and nymphs). The cotton should be examined to

determine when fields on average are squaring and then allow a certain amount of fruit loss before treating for the fleahopper, and only treat where their numbers at least reach 15 per 100 plants with the expectation that they will build to beyond 25-30 per 100 plants. RDP

PECAN NUT CASEBEARER

It is time to treat for pecan nut casebearer in the Corpus Christi area if the egg lay which happened here several days ago was great enough. To the north in the Victoria area the preferred dates will be early next week. Generally, the materials of choice include Intrepid, Confirm or products containing Spinosad. Although effective, some homeowners still use malathion or chlorpyrifos (Lorsban is one brand name). Use of these last two insecticides are more likely to be followed by an aphid outbreak. RDP

INTERESTING INSECTS

Fireflies (lightningbugs) are not flies or bugs but are beetles. Almost everyone has observed fireflies on a spring or summer evening. Many other insects besides fireflies luminesce. Some click beetles have miniature "head lights" and are common in South Texas. Some fungus gnats give off a rather strong light for their small size. Many species of flies, collembola (springtails), and some mayflies also give off light. The light given off by some of these insects is due to the presence of bacteria on or in their bodies. In one such species, luminescence is the result of a deadly bacterial disease of the insect. RDP

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