AgriLIFE EXTENSION
Texas A&M System

INSECTS AND WEEDS IN FOCUS

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AGRICULTURAL CROP TOUR SCHEDULE TEXAS AGRILIFE COUNTY TOURS

Dates for agricultural tours in our region for 2010 are provided in the table below along with telephone numbers to check on details about the tours. Most of these tours will involve row crops, but a few will include range and pasture.

COUNTY		DATE
Goliad	361-645-8204	May 27-AM
Live Oak	361-449-1703	June 3-PM
Jim Wells	361-668-5705	June 4-PM
Jackson	361-782-3312	June 7-PM
Kleberg	361-595-8566	June 8-AM
DeWitt	361-275-0816	June 8-PM
Refugio	361-526-2825	June 9-AM & PM
San Patricio	361-364-6234	June 10-PM
Nueces	361-767-5223	June 11-AM
Colorado	979-732-2082	June 14-PM
Calhoun	361-552-9747	June 15-PM
Victoria	361-575-4581	June 17-PM
Fayette	979-968-5831	June 23-PM
Fort Bend	281-342-3034	June 24-AM
Lavaca	361-798-2221	Not Set Yet

COTTON INSECT ACTIVITY

The big story this season in cotton, as far as insects are concerned, is the **cotton fleahopper**. We first observed them in high numbers in horsemint with none in the cotton followed a few days later with 12 – 13 per 100 plants at which time we established a field control study. Three days later adult fleahopper numbers exceeded 20 per 100 plants in the nontreated cotton plots in our test. By that time only large nymphs remained in the nearby horsemint. Their numbers have been high in cotton in all growing regions, control measures have been successful, and plant response to the control measures has been observed through increased square set. In the Corpus Christi area we first saw high numbers of adult fleahoppers and as of this writing there are many more nymphs than adults. Continue to scout for fleahoppers through about the first week of bloom and apply control measures when their numbers reach about 15 per 100 plants.

Three fleahopper field studies are underway. One is a treatment timing study where we applied the first treatment at first square and then initiated a new set of plots with initial treatments for the next three weeks. Therefore we will end up with plots treated only during the 1st week, plots treated weeks 1, 2, 3, and 4; plots treated weeks 2, 3, and 4; plots treated weeks 3 and 4; plots treated week 4; and completely nontreated plots. The other two field studies involve comparison of various insecticides with one of these studies evaluating many experimental insecticides. In the standard chemical comparison, Centric has given us two weeks control; I am using this chemical as a standard to which others are compared. Two of the tests sites did not receive much rain over the past week; in fact, it was less the 0.3 inches. The other study received over 5 inches of rainfall.

RICE STINK BUG AND HEADWORMS IN SORGHUM

Following rainfall the weekend of May15-16 large numbers of **rice stink bugs** migrated to lights at night, and they were also found in sorghum that had just started to bloom by Monday of that week. It appears that this insect will be a problem in sorghum in at least the southern areas of the Coastal Bend. Dimethoate (examine the labels closely for correct usage) has generally been the material of choice for the rice stink bug. Continue to scout for the rice stink bug until sorghum reaches the hard dough stage. Note that there is a 28 day waiting period listed on the dimethoate

label from application until harvest. That time period will be critical if sorghum is treated in the soft dough stage.

A good rule-of-thumb to use on deciding upon applying control measures is one rice stink bug on every two heads. I would not want even that number present for a long period of time; in other words, we expect to see economic injury at this number of bugs (one on every two heads) any time from bloom through soft dough stage of grain development.

Table 20. Economic injury level for rice stink bug as number of bugs per acre at the milk stage.

Control cost	Grain value ($/cwt)			
$/acre	6.00	7.00	8.00	10.00
6	30,500	27,000	23,000	18,500
8	40,500	35,000	30,500	24,500
10	51,000	43,500	38,000	30,500
12	62,000	52,500	46,000	36,500

The next insects to keep watch for on sorghum are the **headworms (corn earworm** and **fall armyworm).** In the case of the corn earworm, a high rate of any of the pyrethriod insecticides should provide excellent control, but in the case of fall armyworm, Lannate has generally been the material of choice. A mixture of dimethoate 4 (8.0 oz/acre) plus Lannate LV (8 oz/acre) has been used over the years for a combination of rice stink bug and fall armyworm on sorghum heads.

We hope to conduct field studies to expand insecticide product choices for future sorghum crops.

GREENBUGS ON SORGHUM

Watch for development of greenbugs in your sorghum crop. Also make observations on predator and parasite levels.

GULF COAST COTTON MANAGEMENT WORKSHOP - FIRST BLOOM TO CUTOUT

The workshop will be at the Texas Agrilife Research and Extension Center, Tuesday, June 1. The program will be from 8:30 – 11:30 a.m. with registration at 8:15 am. The Center is located on Highway 44 between Corpus Christi and Robstown. This workshop will provide methods on ways to follow development of the cotton crop and how to use the data to improve management decisions. Some of the key information provided will be development of the cotton during this period, insects to consider and scouting cotton.

INTERESTING INSECTS

http://tinyurl.com/26bx9so ***If only a robot could be more like a cockroach.*** May 6, 2010. Studies have indicated that insects rely on their brains to respond to what they feel and see. But for the first time, researchers have shown a direct link between neurons at the center of an insect brain and changes in behavior. A team led by Roy Ritzmann, Case Western Reserve University biology professor, recorded neural activity in the central complex of walking cockroaches – that in itself is a painstaking first. They found that in the same area of the brain where visual, chemical and tactile information from the world outside is processed, the firing of neurons is correlated to the insect's stepping rate. That is, cockroaches walk or run when their brains decide to do so. So what? Well, what if robots could do as much? "Robots were sent into the World Trade Center after 911," Ritzmann said. "By the time the driver would see an obstacle, they were stuck." "We see in these animals an ability to adapt to difficult and changing terrain and conditions," he continued. "What we'd like to see is a robotic brain that can make these kinds of decisions."

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