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Integrated Pest Management Calhoun, Victoria And Refugio Counties

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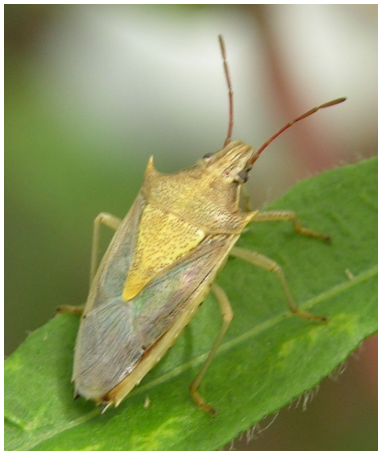
Grain Sorghum

We are seeing increasing numbers of **Rice Stink Bugs** in sorghum fields. Adult rice stink bugs are straw-colored, 3/8 to 1/2- inch long, somewhat elongated and flattened with forward pointing spines on the shoulders. Nymphs hatching from eggs are at first bright red with black markings. As they grow they begin to resemble adults but do not have fully developed wings or forward-pointing spines, but they have an intricate red and black pattern on the upper surface of their abdomens.



Rice Stink Bugs

Headworms are also being found in sorghum. Most of these are fall armyworms, but corn earworms are also being found. Young fall armyworm larvae are greenish and have black heads. Mature larvae vary from greenish to grayish brown and have a light-colored, inverted, Y-shaped suture on the front of the head and dorsal lines lengthwise on the body.

Corn earworm and fall armyworm larvae feed on developing grain. Small larvae feed on flowering parts of the grain head at first, then hollow out kernels. Larger larvae consume more kernels and cause the most damage. The last two larval stages cause about 80 percent of the damage.

The best method I have found for monitoring pest insects of sorghum after bloom is the beat bucket. I use a 2-gallon beat bucket and beat 2 sorghum heads at a time, for 3-5 seconds. Then count what has fallen into the bucket.

Treatment thresholds are shown in the table below. Generally speaking, it is economical to treat for rice stink bugs when they exceed one stink bugs per two heads of sorghum. Treatment threshold for headworms depends on the predominant size of caterpillars found. Don't count caterpillars under ¼ inch as natural mortality is very high in headworm populations.

cotton

TEXAS SOYBEAN BOARD

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

Table 16. Economic injury level for large (longer than ½ inch) corn earworm larvae shown as the number of larvae per acre. When the number of larvae per acre exceeds the number in the table at a given cost of control and value of grain per cwt, the value of the protected grain exceeds the cost of control.[1]

Control cost	Grain value $/100 lbs			
$/acre	6.00	7.00	8.00	10.00
6	9,750	8,500	7,250	5,750
8	13,000	11,000	9,750	7,750
10	16,250	14,000	12,250	9,750
12	19,500	16,750	14,750	11,750

[1] This threshold table assumes all larvae will survive and complete development.

Table 17. Economic injury level for medium-size (¼ to ½ inch) corn earworm larvae shown as the number of larvae per acre. When the number of larvae per acre exceeds the number in the table at a given cost of control and value of grain per cwt, the value of the protected grain exceeds the cost of control.[1]

Control cost	Grain value $/100 lbs			
$/acre	6.00	7.00	8.00	10.00
6	51,500	44,750	38,250	31,250
8	68,500	58,000	51,500	41,750
10	87,750	73,750	64,500	51,500
12	102,750	88,250	77,750	62,000

[1] This table assumes 81 % of the medium-size larvae will die in that stage and not contribute to additional yield loss.

Soybeans

Stink bug populations are beginning to rise in soybean fields. Currently we are finding 0-13 stink bugs per 100 sweeps. The populations are mostly brown and green / southern green stink bugs and no red banded stink bugs have been found yet.

Treat soybeans when stink bug numbers exceed 36 per 100 sweeps (1 per foot when using a beat sheet). Later planted soybeans will have more issues with stink bugs than earlier planted beans.

Cotton

We continue to find high numbers of cotton fleahoppers in cotton fields. Based on field counts after insecticide applications, the immigration of adult fleahoppers is continuing. It is important to note that the insecticides are controlling the pests that are in the fields. Below are the population counts for a fleahopper treatment timing study we are conducting. Treatments 3, 4 and 5 are the same with regards to insecticides and timings. While the numbers in the treated plots are high, they are well below the untreated populations and treatments 3, 4 and 5 had only 1 nymph in the all of the plots indicating a migrating population.

We began seeing an egg lay last Thursday and Friday. This will be especially important to the non-Bt cotton in the area. Check fields for small worms by looking in plant terminals for feeding damage and small worms. Insecticidal control is best when made to worms smaller than ½ inch long.

Pest Name						Cotton fleahopper		Cotton fleahopper		Cotton fleahopper	
Rating Date						5/27/2010		5/27/2010		5/27/2010	
Pest Stage Majority						ADULT		NYMPH		MIXED	
Trt-Eval Interval						6 DA-B		6 DA-B		6 DA-B	
Treatment				Weeks	Appl						
Name				Treated	Description						
1	Untreated					24.3	ab	18.5	a	42.8	a
2	Treated Week 1			1	Auto	25.3	a	8.5	b	33.8	b
3	Treated Weeks 1-3			1-3	Auto	10.8	c	0.0	c	10.8	c
4	Treated Weeks 2-3			2-3	Auto	10.8	c	0.3	c	11.0	c
5	Treated by threshold			1-3	IPM	17.3	bc	0.0	c	17.3	c
LSD (P=.10)						7.40		5.79		7.81	
Standard Deviation						5.87		4.60		6.20	
CV						33.28		84.38		26.83	
Grand Mean						17.65		5.45		23.1	
Replicate F						3.244		0.898		1.061	
Replicate Prob(F)						0.0602		0.4707		0.4019	
Treatment F						5.701		12.579		21.685	
Treatment Prob(F)						0.0083		0.0003		0.0001	

Means followed by same letter do not significantly differ (P=.10, LSD)

2010 ROW CROP TOURS

***CALHOUN COUNTY FIELD CROP TOUR* – (361) 552-9747**
TUESDAY, JUNE 15, 2010 @ 3:30 PM @ Moreman Gin

VICTORIA COUNTY FIELD CROP TOUR - (361) 575-4581
THURSDAY, JUNE 17, 2010
1:30 PM @ SONS OF HERMANN HALL IN DACOSTA