



Pest Cast

The Row Crops IPM Newsletter for the LRGV, a cooperative project of Texas AgriLife Extension Service and the Cotton & Grain Producers of the lower Rio Grande.

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Editor

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General Situation: All crops appear to be growing well. A bit more rain fell on Tuesday. Amounts ranged from a trace to about 1 inch in the mid to eastern part of the Valley and about 1 to 2.5 inches in very isolated spots in western Hidalgo and Starr counties. Insect activity was steady to slightly increased this week.

Cotton: Cotton ranged in size from just-out of the ground to 30 inches in height. Growth regulator applications to keep plants at reasonable heights increased this week. Some 4 and 5 inch internode lengths were observed in a few fields. Most cotton was squaring steadily and many fields had blooms showing throughout. A couple of earlier and drier fields had blooms in the upper 1/4th of the plants. Overall, the crop was maturing as expected.

Weeds were increasing in size and number this week. The usual parade of weeds like pigweed, Texas Panicum, purslane, sunflowers, woolly croton, silverleaf nightshade and a few others continued to be observed in Valley fields since the beginning of the season. Now, there are just more of them in many fields. The recent wet weather has kept farm equipment and herbicides down to a bare minimum and weeds have taken full advantage of the situation. Flying on a herbicide is not always feasible due to surrounding crops of grain sorghum and corn to name a couple. Growers were trying to get back in the fields to regain some weed control with drying fields and weather forecasts.

Cotton *fleahoppers* maintained their presence this week. Some fields had counts in excess of 20 fleahoppers per 100 plants. Overall, fleahopper counts ranged from 0 to 60 per 100 plants this week. Insecticide wash-off due to rainy weather allowed fleahoppers to remain at or above economic thresholds in some fields. Where insecticides remained on the plants for more than a day, fleahopper control was good. Many fields were in their 2nd to 3rd week of bloom this week. Most of the fruit that will be harvested in blooming cotton should be in match-head, 1/4 and larger square and small boll forms and should be safe from fleahoppers. Obviously, should fleahopper numbers exceed 35 or more per 100 plants, even in blooming cotton, then spraying for the pest may be needed.

Cotton aphids were at much lower infestation levels following the rains from last week. A few scattered fields still required insecticide for aphid control this week. Beneficials, namely lady beetles, were in very large numbers and were controlling aphids very well in most fields.



Figure 1. Aphid fungus attacking aphids on cotton leaf. Photo courtesy of Dr. Tom Isakiet, Extension Plant Pathologist- College Station.

Other beneficials observed to be increasing this week included lacewings, minute pirate bugs and even brown lacewing adults... not a commonly seen beneficial in this area. Grain sorghum will provide many more beneficials (all of most of the above and possibly more species of beneficials) as it matures. This should help with future aphid infestations.

Aphids being killed by the fungus (*Neozygites fresenii*) {Nowakowski} could become obvious soon since the fungus needs high levels of moisture and some aphids to flourish. Aphids which become infected by the fungus will appear to be a lump of dark grey- green fuzz on the leaf. More lumps of grey-green will appear as the fungus spreads from aphid to aphid until all but a scattering of aphids will be killed. The fungus spread is usually very rapid, often in about 5-10 days. The more aphids in a field, the more rapid the

spread of the disease. The fungus is probably the best control agent for aphids of all the beneficial organisms seen in cotton. The recent and persistent rains could be a key in the fungus being more prominent than in the last couple of years.

Spidermites were reported to be in more fields and some of those new fields were to be sprayed to control the mites. Mites can flourish even when there has been wet weather such as we have been experiencing recently. Mites often will follow sprays for aphids and other pests. So, check your fields for mites, especially if any insecticides have been used just in the last week or so.

Whiteflies continue to be a concern this week. Compared with last week, more whiteflies were seen in some fields. Whitefly nymphs were reported from only one field this week. This may be a bad year for whiteflies and we encourage everyone to be alert to changing whitefly populations for the duration of the season. The history of whiteflies in the Valley suggests that if whitefly infestations become large by mid to late May, there is a good chance that damaging infestations may develop in the near future. Whiteflies tend to move in undetected and populations sometimes explode in size very quickly. Whenever insecticides are used for whitefly, spidermite or aphid control, coverage is absolutely critical to achieving good control and efficient use of the dollars those chemicals cost. Consider much higher volumes of liquid when treating the three pests compared to what would be used for weed control. ***See attached whitefly guide from Arizona for sampling and insecticide selection for whitefly control. Generally, on a 40 leaf sample, if three or more whiteflies per leaf are found on the 5th main stem node from the top of the plant, treatment is in order. Use insecticides as suggested by the Extension Service in Arizona as a guide.***



Figure 2. Verde bug nymph. Photo courtesy of Dr. Scott Armstrong, USDA.

Verde bugs were reported in several fields this week in Cameron and Willacy counties. The nymphal stage of Verde bugs are bright green versus the dull green of fleahopper nymphs. The adult and nymphal stages of Verde bugs are also much larger than fleahoppers. The adult Verde bug can be 3 to 4 times as large as an adult fleahopper and the youngest Verde bug



Figure 3. Verde bug adult. Photo courtesy of Dr. Scott Armstrong, USDA.

nymph will be about the same size as a medium sized fleahopper nymph. The nearly full grown Verde bug nymph can be 3 to 4 times the size of a full grown fleahopper nymph. Verde bugs are harder to spot than fleahoppers because the adults and nymphs have a very fast get-away. Adult Verde bugs are often spotted in the plant terminal and the nymphs can sometimes be caught inside larger squares. Growers should pay close attention as it is capable of severe damage to cotton in the Valley. Insecticidal control is generally easy and quick on Verde bugs. Check your fields closely for this one.

Grain Sorghum: Most fields were still in bloom, but a few had reached the hard dough stage of growth this week. A few rice stinkbugs were found in scattered sorghum fields this week. The main concern with rice stinkbugs is in the milk stage which precedes the soft and hard dough stages. The following information comes from: Texas AgriLife Extension Service publication: **B-1220, Managing Insects and Mite Pests of Texas Sorghum.** *The rice stink bug (Oebalus pugnax) is straw-colored, shield-shaped and (about 1/4 inch wide by)*



Figure 4. Rice Stinkbug (1/4 inchwide by 1/2 inch long) on sorghum. Photo from B-1220, Managing Insects and Mite Pests of Texas Sorghum.

1/2 inch long. Females lay about 10 to 47 short, cylindrical, light-green eggs in a cluster of two rows. Eggs hatch after 5 days, and nymphs require 15 to 28 days to become adults. Bugs suck juices from developing sorghum kernels and, to a lesser extent, from other grain head parts, and may cause economic damage. The extent of damage depends on the number of bugs per grain head, the duration of infestation, and the stage of kernel development when infestation occurs. Bugs cause more damage early during kernel development and less as grain develops to the hard-dough stage. Both nymphs and adults can reduce grain weight, size and seed germination. Fungi often infect

damaged kernels, causing them to turn black and further deteriorate in quality. Damaged kernels rarely develop fully and may be lost during harvest. Grain head-feeding bugs tend to congregate on sorghum grain heads and sometimes within areas of a field. Use the beat-bucket

technique to estimate abundance. Shake sorghum grain heads vigorously into a 2.5- to 5-gallon bucket where bugs can be seen and counted more easily. However, adult bugs will fly from the sampled plant or the bucket. Count those that fly from sorghum grain heads or from the bucket and those on plant leaves. Sample at least 30 plants from a field. Take at least one sample per acre in fields larger than 40 acres. Determine the average number of bugs per sorghum head. Then multiply the average number of bugs per head by the plant density per acre to calculate the number of bugs per acre. Use the table to determine if the rice stink bug population exceeds the economic injury level.

Not all stink bug species in sorghum are economic pests. Several species, such as the spined soldier bug, prey on harmful insects and thus are beneficial.

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

Control cost \$/acre	Grain value (\$/cwt)			
	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

No reports of *sorghum midge*, as yet. Keep looking in later blooming sorghum fields. Check the yellow bloom areas of the sorghum head. Orange blooms are past sorghum midge damage stage.

Heat Units (H.U.) as shown are calculated from the dates of planting Shown in the left column		
Dates	Accumulated 2012 H.U.s	Accumulated Historical H.U.s
2/15	1509.5	1279.6
3/1	1307.5	1177.7
3/15	1204.0	1062.5
4/1	931.5	858.3

LRGV

BOLL WEEVIL TRAPPING INFORMATION

YTD	2012	2011	2010	2009	2008	2007	2006	2005
	.00939	.00189	.00806	.17765	.13110	.27630	.35697	1.52198

Week Ending	2012	2011	2010	2009	2008	2007	2006	2005
4/1/12	.03353	.00476	.00672	.19847	.08503	.64118	.48544	0
4/8/12	.01617	.00360	.00592	.11633	.30512	.40392	.37552	0
4/15/12	.01572	.00114	.00312	.23686	.17102	.36414	.88875	6.47392
4/22/12	.00339	.00133	.01426	.38106	.05425	.23751	.15855	3.48685
4/29/12	.00474	.00043	.01528	.09081	.09113	.18227	.08629	1.70269
5/6/12	.00136	.00077	.00825	.05548	.08168	.07073	.09976	.73028
5/13/12	.00055	.00174	.00291	.02454	.07013	.17113	.09204	.72057

Traps inspected for current week: 27,056

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