

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 Valley

John W. Norman, Jr.
Editor

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General Situation: Another week of hot and windy weather. No rain. Considering all of the weather, crops continued to look very good. Insect activity increased in most fields.

Cotton: Most fields had excellent square loads. A number of fields were blooming. Aphids, fleahoppers, spidermites, tarnished plant bugs and a whole lot of leafminers were commonly seen in fields this week. High numbers of aphids and fleahoppers resulted in many acres being sprayed this week. Despite the fact that many fields were sprayed, beneficial insects were on the increase. Their presence kept aphid populations below the treatment threshold, keeping many other fields from needing aphid treatments this week. Lady beetles, minute pirate bugs, big-eyed bugs, spiders, nabids and aphid parasites were commonly seen in Valley fields.

Spidermites were observed in a few fields, but none at treatable levels this week. The continuing hot and dry weather pattern is improving conditions for mites and a few other insect pests.

Whiteflies were reported in very low numbers (less than 5 per field) in scattered fields this week. No treatments were reported for whiteflies.

Thrip continued to be found throughout the Valley this week. Most fields checked this week had thrip counts from 1 to 4 thrip per plant. Again, we remind everyone that thrip can move from onion fields in large numbers, and in a short time can cause damage to nearby cotton. Thrip activity is higher than usual mainly because of the dry weather.

Leaf miners (*Liriomyza trifolii*) were in very high numbers in most fields across the Valley this week. A number of growers and fieldmen called this week to discuss and ask questions about the leaf miners they saw as they inspected fields this week. Leafminer adults are very small flies - less than 1/16th inch in size - and are almost impossible to see with the naked eye and infestations can increase or decrease rapidly. Because of this, it is difficult to base chemical control decisions on adult leafminer counts.

Dr. Scott Armstrong, USDA Research Entomologist at Weslaco, has recently been collecting leafminers from various crops, including cotton. He has been trying to rear larvae from the leaves to adults for research projects. He reports that he has been unable to get adults lately because of high levels of larval parasitism. Because of this, cotton and perhaps other crops such as cantaloupe likely will see a downward turn of leafminers populations. No adults mean much fewer mines in leaves.

Dr. David Kerns, Extension Entomologist from Lubbock, Texas, sent us some information on leaf miners in cotton. See below:

Leafminer is an occasional pest of cotton which normally causes little or no damage. It is usually associated with hot, dry growing conditions and populations can increase under these conditions. In pre-squaring cotton, leafminers have been shown to cause an 18% reduction in leaf area by pinhead size square stage when approximately 10% of the plants had mines. However, a reduction in yield was not observed. Usually, leafminers in cotton are controlled by parasitoids. Broad spectrum foliar sprays of insecticides such as acephate have been shown to disrupt this biological control, however. If the leaf mines are opened and the maggots are found with secondary grubs or maggots feeding on them, parasitism is occurring.

To date leafminers have not been shown to cause a yield reduction in cotton, but almost no information is available. Thus, the benefit of treating cotton for leafminers is uncertain. However, where populations are high on pre-bloom cotton, insecticide treatment may be warranted. As a general guideline, treating pre-bloom cotton for leafminers should be considered when leaves average three or more active leaf mines in which larvae are present from 50 or more randomly selected leaves. If parasites are present in fields, use of insecticides is not recommended and is not likely to result in yield increases. Also, if yield potential is becoming limited by drought, insecticide treatment may not improve cotton yields. Many populations of leafminers have developed insecticide resistance. Options for control which are likely to be effective are: mid to high label rates of Tracer[®] (spinosad) and Epi-Mek[®], Zephyr[®], Abba[®], Zoro[®] (abamectin).

Fields appeared to have “dusty” leaves on the lower half on the plants this week. Those “dusty” leaves were where leafminer larvae were feeding. The following series of pictures shows what many saw in fields this week. The one closeup photo of the leafminer adult and mine was provided by Dr. Kerns.



Figure 1. Leafminer infested cotton appears to be dusty



Figure 2. Leafminer damaged leaves



Figure 3. Leafminer damages leaf close-up



Figure 4. Adult leafminer close-up

Grain Sorghum and Corn: Some fields of dryland and irrigated grain sorghum continued to show good growth this week. Other fields, especially later planted fields, were increasingly showing signs of drought with twisted leaves, even in cooler morning temperatures. In spite of the drought sorghum plants in many fields continued to exert heads well above the upper leaves, indicating moisture conditions were still adequate, at least for the time being. Corn was tasseling and many new ears were observed in fields across the area this week. No insect activity was reported on either corn or sorghum this week.

LRGV

BOLL WEEVIL TRAPPING INFORMATION

YTD	2011	2010	2009	2008	2007	2006	2005
	.00278	.00724	.28612	.16836	.36592	.52281	4.01635

Week Ending	2011	2010	2009	2008	2007	2006	2005
4/3/11	.00476	.00672	.19847	.08503	.64118	.48544	0
4/10/11	.00360	.00592	.11633	.30512	.40392	.37552	0
4/17/11	.00114	.00312	.23686	.17102	.36414	.88875	6.47392
4/24/11	.00133	.01426	.38106	.05425	.23751	.15855	3.48685

Traps inspected for current week: 44,980

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Contact Info

Pest Cast Newsletter
 Texas AgriLife Extension Service
 South District 12
 2401 East Highway 83
 Weslaco, TX 78596
 (956) 968-5581
 E-mail: d12south@ag.tamu.edu