



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.

John W. Norman, Jr.
Editor

Volume XXXIV

Issue 10, June 15, 2012

GENERAL SITUATION: Continued hot and dry. Fields drying down fast. No rain in sight, *maybe*. Sorghum and corn pre-harvest and harvest activities ramped up. Insect activity increased in cotton.



Aphid fungus on aphid carcass.

COTTON: Fields were drying out fast. More fields were observed with few to no blooms left in the tops of plants. Just bolls were observed in some dryland and irrigated fields. A few cracked bolls were reported this week in fields planted by or earlier than March 15. Despite all of the appearances of bad conditions, the overall crop still looked good this week with a lot more bolls showing than last week. Earlier planted cotton (March 15 and earlier) had many more bolls than cotton planted 10-14 days later. Early planted dryland fields had much higher numbers of bolls than later planted dryland fields. Differences in boll numbers between early and later planted irrigated cotton did not appear to be as large compared to dryland cotton this week.

Whiteflies were in mixed numbers this week. Fields which were sprayed for whiteflies last week appeared to have reduced numbers this week. Some insecticides and combinations take more than a week to work. Many fields in the general area of melons had higher concentrations of adults and nymphs this week. Many of the melon fields were being destroyed and whitefly adults were moving to “greener pastures”. In some situations, more fields were “coming on line” for the first whitefly spray of the season. Be on the lookout for rapid increases in adult whitefly infestations. Edges of fields will be the first targets for migrating whiteflies.

Spidermite infestations were reduced in many fields this week. Mites were reduced by many of the whitefly insecticide sprays. However, reports of increasing mites in a few fields also were received late this week. The current weather continued to aide both mites and whiteflies by stressing cotton - a condition both pests seem to like.

Bollworm larvae were reported on the decline in bt and non-bt fields this week. Counts ranged from 0 to 10 worms per 100 plants, primarily in non-bt cotton. Bollworm egg counts also were reported on the decline this week. Reports of small dead worms in bt-cotton were received this week. The worms had just started to feed and apparently were killed by bt in the plant.

Verde bugs were reported from the mid-Valley area this week. A few fields were sprayed for the Verde bugs but in others no damage was reported.

Beneficial insects, spiders and disease still were working this week. Increases in green lacewings, pirate bugs and the aphid fungus were found this week. Grain harvesting will likely increase the number and variety of beneficials entering fields over the next several weeks.



Grain sorghum harvesting is ramping up.

GRAIN SORGHUM: Grain harvesting increased this week. Many ground spray machines were running this week applying glyphosate herbicide to prep more sorghum for harvest. The current weather conditions likely will have more fields primed and ready to go within the next 7 to 14 days.

No reports of *sorghum midge* on blooming sorghum were received this week. If sorghum is blooming, check it. Midge probably are still here.

CORN: Last week I mentioned several possible factors affecting corn maturation, including possible disease issues. Dr. Tom Isakeit, Extension Plant Pathologist, replied to my inquiry about corn disease symptoms we have been seeing lately. He said that at least one picture I sent him showed Southern rust. “Warm, wet weather drives the disease {We certainly have had both weather conditions lately}. It looks like it is way too late to do anything about it {this season}, but we don’t have good threshold information for this disease. Some years ago, in a hybrid trial, I saw that some of the hybrids with the most rust had the highest yields.”



Corn field with Southern rust disease.



Close up photo of Southern rust on corn leaf. 06-11-12.

Dr. Isakeit also sent an article on Southern rust on corn which is on the next page. It describes how the rust gets started and possible timing of fungicide treatments for the next time Southern rust starts infecting corn.

A number of corn fields in Cameron county have recently shown severe symptoms of Southern rust like the one in the photo above. Other corn fields currently infected by Southern rust may not be as severe as the photo shown or they may be worse.

Southern Rust of Corn by Tom Isakeit, Professor and extension plant pathologist, Texas AgriLIFE Extension

The symptoms of southern rust (caused by the fungus, *Puccinia polysora*) are slightly raised, circular (1 to 2 mm diameter), orange pustules (see photo below) that are mainly on the upper sides of leaves. Pustules can also occur on stalks and husks. Early in the season, pustules are on the lower foliage and they progress to foliage in the upper canopy during the growing season. Hybrids vary in their response. With susceptible hybrids, a high severity of rust (>50% of leaf area covered) on upper canopy leaves can lead to premature drying. This may affect yield, primarily by reduced kernel weight. In one experiment, the amount of yield loss ranged from 4% to 45%, with the higher loss occurring with a later planting date. This data was based on a comparison of near-isogenic crosses; a comparison of yield with fungicide-treated and non-treated hybrids is lacking. Consequently, there are no thresholds for economical use of a fungicide. The benefits of an application will be affected by hybrid susceptibility, timing of infection, and environmental conditions that support disease development. At this point (mid-June), it is too late to apply fungicides in Upper Coast and South Texas fields.

Severe epidemics of this disease do not occur annually. The last bad year for southern rust was 2007 and we were able to get good data on hybrid susceptibility from one variety trial. Unfortunately, most of those hybrids are no longer available. However, it was interesting to see that some of the hybrids that are very susceptible to rust also ranked high for yield, although we don't know if the yield would have been higher had there been a timely fungicide application. Since the turn-around time from infection to new spores with this fungus ranges from 9 to 12 days, my guess is that a fungicide application at silking may have had the greatest impact on reducing disease development.

Leaf wetness (rain or dew) is necessary for infection by wind-blown spores. The optimal conditions for infection are 16 hours of dew at 80°F, although the fungus can infect over a temperature range of 54° to 97°F. The fungus has a limited host range (corn) and can't survive without a living host, so it does not overwinter on crop debris.



Pustules of southern rust, caused by *Puccinia polysora* (left side of photo), in comparison with common rust pustules, caused by *Puccinia sorghi* (right side of photo). Common rust is seen on foliage early in the season, but its development is hindered by high temperatures, while the amount of southern rust increases over the growing season, if warming temperatures are coupled with frequent rain or heavy dews.

LRGV

BOLL WEEVIL TRAPPING INFORMATION

YTD	2012	2011	2010	2009	2008	2007	2006	2005
	.00696	.00243	.00729	.16795	.11150	.22048	.39439	1.20304

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
5/20/12	.00485	.00234	.00140	.10516	.08410	.06717	.20786	.58319
5/27/12	.00426	.00177	.00336	.20724	.06413	.17113	.09204	.72057
6/3/12	.00339	.00244	.01018	.13857	.04752	.13497	1.00114	.82565
6/10/12	.00281	.00720	.00794	.17487	.11127	.03975	.46624	1.77066

Traps inspected for current week: 34,887

Heat Units (H.U.) as shown are calculated from the dates of planting Shown in the left column		
Planting Dates	2012 H.U.s	Historical H.U.s
2/15	2216.0	1927.5
3/1	2034.0	1825.6
3/15	1930.5	1710.4
4/1	1658.0	1506.2

We thank the following sponsors of the Pest Cast newsletter for their very generous contributions toward this effort.

Gold

✦ **Hidalgo County Farm
Bureau**

✦ **Texas Grain Sorghum
Producers Association**

✦ **Valley Co-Op Oil Mill**

✦ **Wilbur-Ellis Company**



Silver

✦ **Dow Agrosiences**
✦ **Willamar Gin Co.**

✦ **RGV Gin Co.**



Bronze

✦ **Adams Farms**
✦ **Bennack Flying Service**
✦ **Farmers Crop Insurance**
✦ **Helena Chemical**
✦ **Monsanto/DeltaPine**
✦ **Rio Grande Aviation**
✦ **Salazar Farms**
✦ **Texas AgFinance**

✦ **All-Tex Seed**
✦ **DuPont Agricultural Products**
✦ **Gulf Compress**
✦ **Hargill Growers Gin**
✦ **La Feria Co-Op**
✦ **RGV Ag Science, Inc.**
✦ **Ross Gin Co. Ltd.**
✦ **Skalitsky Brothers Farm**

*For details on sponsoring the Pest Cast Newsletter, please call Cotton and Grain Producers
Executive Director, Webb Wallace, at 956-491-1793.*

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
<http://southtexas.tamu.edu>