



# INSECTS AND WEEDS IN FOCUS

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## TEXAS GULF COAST GRAIN HANDLERS CONFERENCE

The conference will be Thursday, January 19, 2012 at the El Campo Civic Center. The annual event is designed for the grain storage industry with emphasis on managing grain pests and safety aspects in that operation. See the attached flyer for more details. RDP

## COTTON VARIETY TRIALS

Results of the 2011 cotton variety trials that were conducted in the Rio Grande Valley, Coastal Bend, and Upper Gulf Coast regions are available at <http://varietytesting.tamu.edu>.

The final report includes the results of twenty-one trials: twelve B2F or WF, three conventional, four Liberty Link, and the two monster trials. DDF

## CONSIDERATIONS FOR THRIPS CONTROL ON COTTON

Thrips in cotton have historically been a much greater problem on the Upper Gulf Coast than in the Lower Coastal Bend area. For that reason it is much more important to consider using one of the systemic insecticide seed treatments in the critical areas north and east from about Tivoli. The two chemicals, Cruiser or Gaucho Grande, have historically provided dollar return over and above their cost.

I would estimate, based on our long-term studies, that benefit is gained on cotton from the use of these treatments more to the south less than half the time, but in a year when infestations are heavy benefit even to the south can be substantial. Another complicating factor is that it is virtually impossible to recover from thrips damage with

foliar rescue treatments compared with using the seed treatments. Furthermore, use of the seed treatments alone are not as likely to lead to increased aphid or spider mite problems.

Note that the seed treatments listed are the basic insecticides not to include the mixtures for nematodes or Poncho that is being marketed today. In my studies we never have observed benefit from those mixtures, and we have never tested Poncho on cotton. RDP

## CONSIDERATIONS FOR SYSTEMIC INSECTICIDE SEED TREATMENTS ON SORGHUM

Consistent benefits have been observed from the use of Cruiser and Poncho insecticide seed treatments on sorghum for the control of **yellow sugarcane aphid**, **greenbug**, and **southern corn rootworm**. Both these insecticides have provided excellent control of the two aphid species listed with large dollar returns especially where yellow sugarcane aphids occurred in heavy numbers on seedling sorghum on 3-4 true leaf plant growth stage. In some cases these returns amounted to over \$80 per acre and that was when the sorghum value was around \$5/cwt. Reports have been received that Cruiser has not provided as good southern corn rootworm control, but on a rate-for-rate basis I have not been able to show less activity from the Cruiser in my studies. However, on corn we have observed, at least on a numerical basis, a trend for less control of chinch bug with Cruiser. I think either Cruiser or Poncho would be a good choice on sorghum and should be used. There are years where an insecticide treatment might not be profitable on sorghum, but over time the average yield increase has been around 350 lb sorghum/acre. RDP

## CHINCH BUG CONTROL IN CORN WITH PONCHO AND CRUISER

Chinch bugs numbering above 40/100 corn plants that are about 6 inches or smaller in size can cause damage and subsequent yield loss. It seems that the chinch bugs must be present on the smaller corn plants and at even higher numbers than the 40/100 plants to really see the damage effects. In 2011 we had two studies in which substantial yield reduction was observed in corn where chinch bug numbers early in

the plant development stage in nontreated corn averaged 200 or more/100 plants. Complete results of both studies are available in "Results of Insect Control Evaluations on Corn, Sorghum, Cotton, Pecan & Stored Grain – 2011" available shortly from this office. A summary of one of the tests from Wharton County is provided in Table 1. There was a trend, but not a statistical difference, for more chinch bugs and lower yield in the Cruiser treatments. However, both treatments produced substantially more yield than the nontreated corn. These data indicate that in areas where the chinch bug is present in moderate to high numbers each treated seed should be considered. Furthermore for the chinch bug, it seems to me, that the higher rates of 0.05 mg ai/seed or more should be considered even though we have not been able to conclusively demonstrate a higher dollar return with the elevated rates. RDP

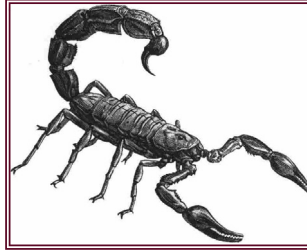
Table 1. Chinch bug numbers and corn yield, Rancho Grande Farms, Wharton County, TX, 2011.

Seed treatment	Rate mg ai/seed	Chinch bug per 100 plants <sup>1/</sup>	Yield bu/acre
Poncho 5FS	0.25	21.9 <sup>cd</sup>	94.4 <sup>a</sup>
	0.50	24.4 <sup>cd</sup>	96.8 <sup>a</sup>
	1.25	15.6 <sup>d</sup>	95.0 <sup>a</sup>
Cruiser	0.25	122.5 <sup>b</sup>	92.3 <sup>a</sup>
	0.50	58.1 <sup>c</sup>	87.5 <sup>ab</sup>
	1.25	45.6 <sup>cd</sup>	93.3 <sup>a</sup>
Nontreated		273.1 <sup>a</sup>	79.6 <sup>b</sup>

Means in a column followed by the same letter are not significantly different.

<sup>1/</sup>Average of counts made at 26 and 35 days after planting.

## INTERESTING INSECTS



This article is not about an insect, but at least it is about an arthropod (scorpion), and most entomologists do work with some critters which are not insects. *Why do scorpions glow in the dark* was the title of an article that appeared on Discover Blogs, December 23, 2011 (<http://goo.gl/j5St>). To find scorpions at night, switch on an ultraviolet light. Under such a beam scorpions glow a vibrant blue-green, lighting up like beacons against the darkness. Collectors even use black lights to find specimens at night.

No one knows why scorpions glow, and a number of reasons have been given, but recently Douglas Gaffin, University of Oklahoma, suggested an intriguing idea. He thinks the scorpions glow to convert the dim UV light from the moon and stars into the color that they see best – blue green. This could explain why scorpion eyes are so exquisitely sensitive, to the point where they can detect the faint glow of starlight against the background of the night sky. They amplify those faint signals by turning their entire bodies into light collectors which can detect the slightest change in light that may even be from a shadow caused by friend or foe. In a way their entire bodies are like eyes. RDP

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**We're on the Web!**

Newsletter available at <http://agfacts.tamu.edu/~rparker/>

Pest Management information available  
at <http://txaac.org/>

# TEXAS GULF COAST GRAIN HANDLERS CONFERENCE

## JANUARY 19, 2012

### El Campo Civic Center

Preregister - \$20.<sup>00</sup>

At the Door - \$25.<sup>00</sup>

Registration - 8:00 am

Program - 8:25-3:10 pm

(Lunch is provided)

**5 CEUs**

#### FOR MORE INFORMATION

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## Program Topics and Speakers

One Sample Strategy for Aflatoxin Risk Management & Response by Users	Mary Sasser Jimmy Roppolo A.J. Rath	Office of the State Chemist Farmers Cooperative Maxim Farm Egg Co., Inc.
OSHA Respirator Requirements/ Tips on Ventilation	Glenn Abdelnoor	Texas Department of Insurance - OSHCON
New Fumigant Measurement Instruments	Brent Yaschuk	Factory Direct Safety and Environmental, Inc.
Use of Fall Protection While Checking Grain	Scott Fuchs	Capital Safety
Grain Protectant Stewardship & Application	Craig Jakob	Alliance Pest Solutions, LLC.
Manlift Inspection, Maintenance, & Code Compliance	Zachary Barnes	Barnsco, Inc.
Grain Bin Sealing & Leaks	Joe Kelly Steven Craig Roy Parker	Farmers Cooperative Farmers Cooperative Texas AgriLife Extension