

Stephen Biles

186 CR 101

Port Lavaca, TX 77979

PEST MANAGEMENT NEWS

Calhoun, Refugio & Victoria Counties

(o) 361-552-3324

(m) 361-920-1138

biles-sp@tamu.edu

VOLUME 9

ISSUE 10

July 26, 2013

Current Conditions

Sorghum and corn harvest is well underway and most yields I have heard are good. I believe all sorghum fields are at or beyond hard dough and are not susceptible to further insect losses. Continue to watch insects in cotton and soybean fields.

Cotton

Cotton fields range from late bloom to mature with open bolls. Cotton fields are “safe” once the field has reached **450 HU past cutout**. We typically accumulate 20-23 HU per day so cotton should be “safe” 23 days after cutout. Most fields have accumulated more than 450 HU and are “safe” from insect pests.

Verde Plant Bugs continue to be found in some cotton fields, but we are not finding a lot of **stink bugs** in the fields. Evidence of Verde and stink bug feeding on 1-inch bolls ranges from 5 to 30 percent.

Look for evidence of **stink bug and Verde plant bug** feeding in cotton by opening 1-inch diameter bolls.

The timing of cotton defoliation is subject to many different types of evaluation. When considering defoliation timing, I usually consider percent open bolls, nodes above cracked boll (NACB) and Heat Unit accumulation from cutout (5 NAWF).

When using a boll opener defoliation can occur when more than 60% of harvestable bolls are open and ≤ 4 NACB.

You may also want to consider heat unit accumulation. Apply defoliants once 850 HU have accumulated after cutout.

Table 1. Heat Units accumulated through July 10, 2013 at weather stations (<https://cwp.tamu.edu/>) to determine when cotton crops are “safe” from new insect pest infestations.

Date of Cutout (5 NAWF)	Heat Units Accumulated through July 24	
	Austwell	Victoria
June 20	821.7	796.8
June 25	701	683.4
July 1	547.5	527
July 5	460.1	441.9

Soybeans

Soybean fields range from pod fill to mature pod. Some fields are beginning natural senescence as their leaves are beginning to turn yellow. Stink bugs have been found above treatment threshold this past week. We found brown, southern green and green stink bugs in both Victoria and Calhoun counties. Red-Banded stink bugs were found in Victoria County.

Treat fields when they exceed 36 stink bugs per 100 sweeps or 1 per foot. Reduce the treatment threshold to 24/100 sweeps or 1/3 ft. if red-banded stink bugs comprise more than 50% of the stink bugs.

**Red-banded
Stink Bug
Nymph and
Mosquito**



Sorghum planting rate trial

Table 2 shows plant and head density and yield from machine and hand harvest of a planting rate trial conducted in southern Refugio County this year. The field was planted on 20-inch rows and plots were 60 feet wide and the length of the field. The trial was replicated three times in the field.

No yield differences were found in yield for either harvest method. While the numerical difference between the high and low yielding treatments is about 10%, variability between the replications can explain this lack of difference.

Table 2. Yield data from the sorghum planting rate trial conducted near Bonnieview, TX, 2013.

Target seeding rate	3/27/2013	6/11/2013	7/9/2013	7/3/2013
	Plant Density Plants/Acre	Head Density Heads/Acre	Machine Harvest lbs/Acre	Hand Harvest lbs/Acre
1 35000 Seed per Acre	32000 e	46667 c	3977 a	4468 a
2 45000 Seed per Acre	38667 d	45500 c	4003 a	4457 a
3 55000 Seed per Acre	46500 c	52500 bc	4319 a	4566 a
4 65000 Seed per Acre	54167 b	59667 ab	4299 a	4707 a
5 75000 Seed per Acre	63667 a	64000 a	4266 a	4618 a
LSD (P=.05)	4005.19	11497.29	418.59	809.27
Standard Deviation	2127.2	6106.35	216.77	429.81
CV	4.53	11.38	5.19	9.39
Treatment Prob(F)	0.0001	0.0228	0.233	0.9513

Table 3 shows the hand harvest yield data for each plot in the trial. This helps demonstrate why it is important to replicate. If we did not replicate and only used the first replication the lowest population would appear to be best by over 200 lbs. But when all three replications are considered, there is no statistical difference between the treatments. Thus, replication helps bring credibility to the data.

There is still value in field projects without replication. These kinds of projects are for demonstration purposes and should not be the basis for making changes in production practices.

It is important to understand the purpose of a project before putting them in the field. If we want to use the results to make changes in our crop production, the research must be replicated. If, however, we want to see what different varieties or hybrids look like in the field, a demonstration without replication is reasonable, just don't use the results for decision making.

Table 3. Yield for each plot in the sorghum planting rate trial conducted near Bonnieview, TX, 2013.

Target seeding rate	Rep 1	Rank	Rep 2	Rank	Rep 3	Rank	Average	Rank
1 35000 Seed per Acre	5,264	1	4,091	4	4,050	5	4,468	4
2 45000 Seed per Acre	4,928	2	4,032	5	4,409	3	4,457	5
3 55000 Seed per Acre	4,644	4	4,947	1	4,109	4	4,566	3
4 65000 Seed per Acre	4,490	5	4,784	2	4,847	1	4,707	1
5 75000 Seed per Acre	4,701	3	4,329	3	4,824	2	4,618	2

Support for the 2013 IPM Program comes from the following:

Woodsboro Farmer's Cooperative
WelFab, Inc.
Hlavinka Equipment

South Texas Cotton and Grain Association
Helena Chemical
Numerous Producers