

JULY 17, 2015

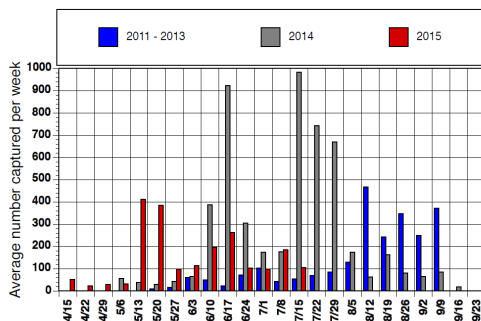
General Status

For the first time in several years we are experiencing 'normal' early season cotton pest pressure. It has been so long that this 'average' pressure feels like we are dealing with a major outbreak of square feeding pests. In reality, this is the level of cotton pest pressure we came to expect year in and year out once upon a time. What is a difference from that one time 'norm' is that we have not seen any blooms by mid-July yet. It is now imperative that we hold as much of the early fruit our young plants have put on so far. Meanwhile, we still have decent soil moisture, we have had heat this week alongside plenty of humidity. All of our crops have responded quite well to the weather and pests in our other crops have remained sub threshold this week but there are a few things to keep a close eye on.

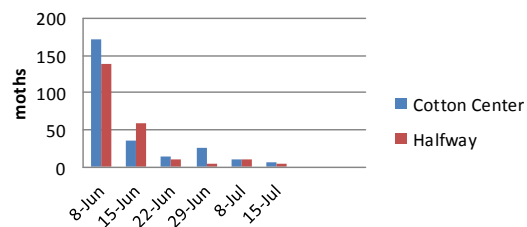


Jason Miller, our new CEA-Hale, looks for SA at the July 14, Mobile Field Tour. Welcome back to AgriLife Jason!

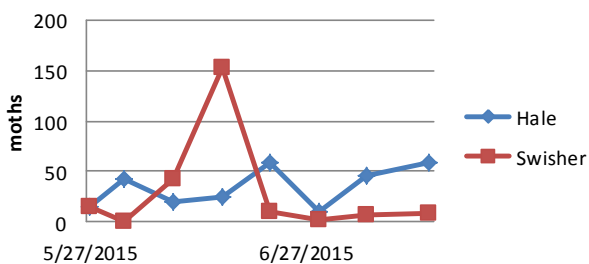
2015 fall armyworm pheromone trap captures (moths per week) at Lubbock. Average of two traps.



2015 FAW Moth Catches - Hale



2015 Bollworm Moth Trap Catches

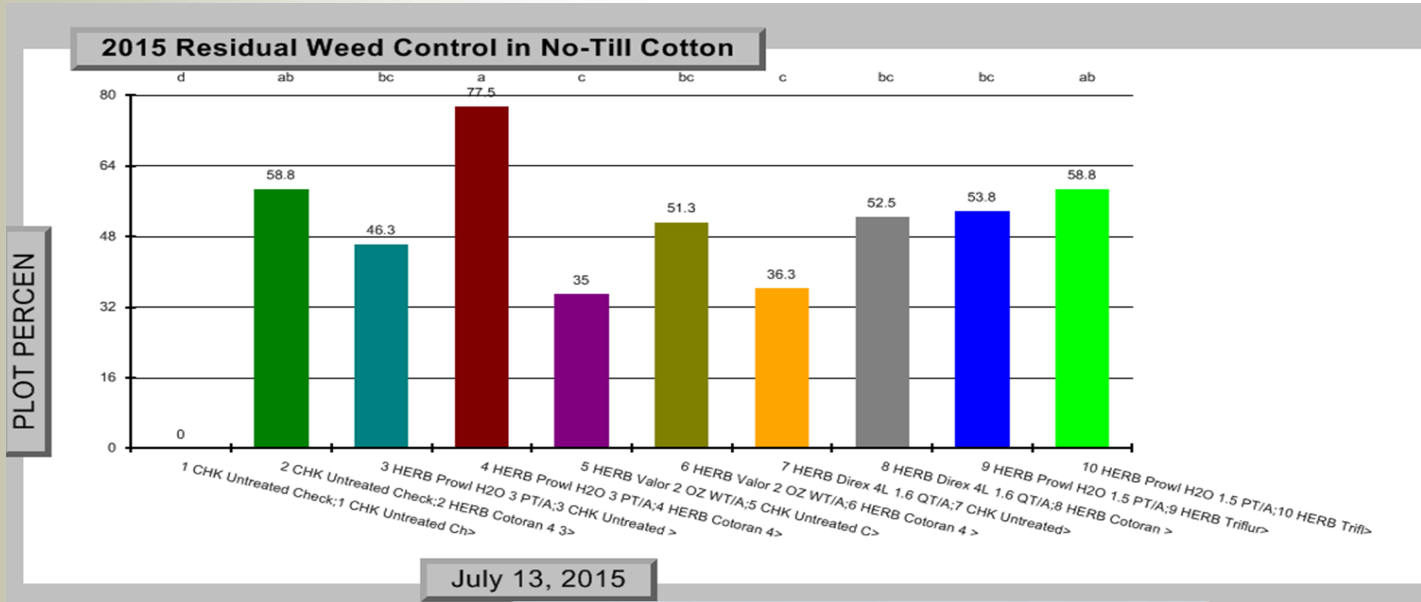
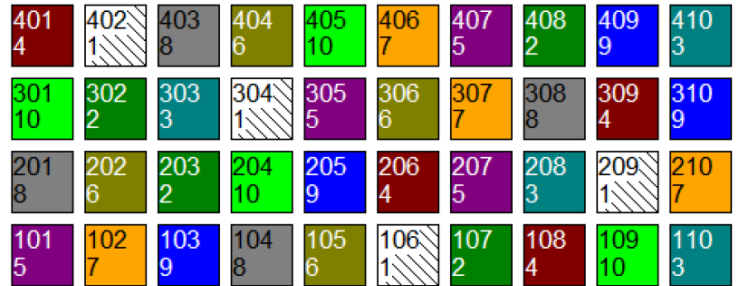


2015 Residual Herbicide in No-Till Cotton Trial

I concluded our 2015 residual herbicide trial in conjunction with the Hale, Swisher, & Floyd Mobile Ag Tour on July 14. I am presenting what we intended to be the final data from this trial in this newsletter. Our cooperator had the idea of making a Roundup pass over the trial now that it is concluded and seeing how many of these weeds survive with relation to residual pre-plant treatment. We will be sharing that data with you as soon as it is collected.

Trial Map Treatment Description

Trt	Code	Description
1	CHK	1 CHK Untreated Check;1 CHK Untreated Check
2		2 CHK Untreated Check;2 HERB Cotoran 4 3 PT/A
3		3 HERB Prowl H2O 3 PT/A;3 CHK Untreated Check
4		4 HERB Prowl H2O 3 PT/A;4 HERB Cotoran 4 3 PT/A
5		5 HERB Valor 2 OZ WT/A;5 CHK Untreated Check
6		6 HERB Valor 2 OZ WT/A;6 HERB Cotoran 4 3 PT/A
7		7 HERB Direx 4L 1.6 QT/A;7 CHK Untreated Check
8		8 HERB Direx 4L 1.6 QT/A;8 HERB Cotoran 4 3 PT/A
9		9 HERB Prowl H2O 1.5 PT/A;9 HERB Trifluralin 1.5 PT/A;9 CHK Untreated Check
10		10 HERB Prowl H2O 1.5 PT/A;10 HERB Trifluralin 1.5 PT/A;10 HERB Cotoran 4 3 PT/A



From afar, these plots look like big a mess, but at the 2014 Mobile Ag Tour, attendees were able to see the distinct differences between all these replicated treatments up close.



Sugarcane Aphids

There are quite a lot of concerns over the sugarcane aphid in sorghum and other sorghum type crops. While they have now been confirmed both in the Plainview, Lubbock, and Lamesa areas their populations remain quite low at this time. For our program sorghum, we only found one very small colony in our test plots at Halfway. It took me 20 minutes of intense scouting to find those few aphids there and we have no other sorghum fields with these aphids yet. While we do expect them to be on the increase, we remain confident this aphid can be managed with the tools at hand, but we had better respect this aphid and manage our crops accordingly. For the latest sugarcane aphid news, tips, and management techniques please subscribe to the sugarcane aphid blog at <http://txscan.blogspot.com/>.



Dr. Pat Porter started off the 2014 Mobile Ag Tour with a sugarcane aphid update complete with management recommendations.

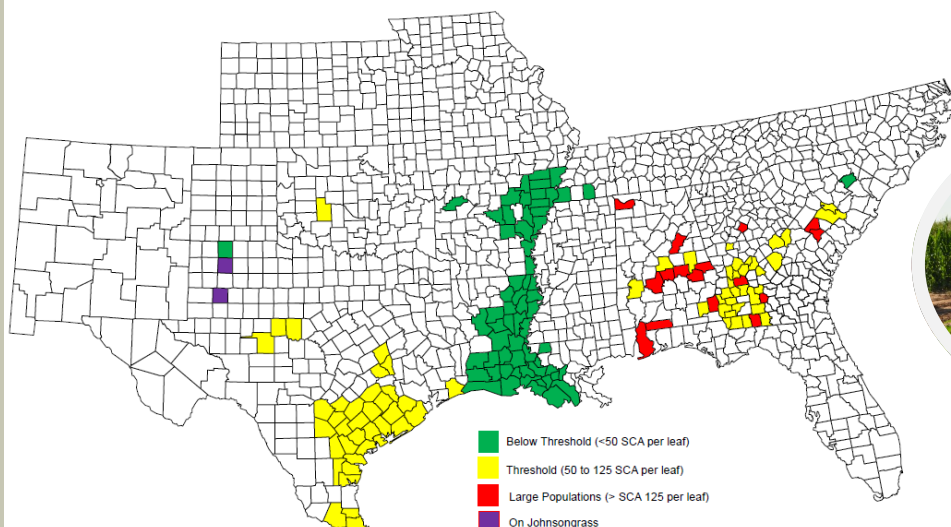


Mobile Field Tour attendees were trained on SA scouting by Blayne and were even allowed to search the research plots at Halfway for

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2015 Sugarcane Aphid, *Melanaphis sacchari*, Occurrence on Sorghum and Johnsongrass July 14, 2015

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Lookout sugarcane aphid, Hale County producer Ronald Groves is not happy you are here!

Cotton

This week our program's cotton ranged in stage from match-head to ½ grown square with most fields in the ¼ to 1/3 grown square range. There is an outside chance of seeing blooms in the area by next week, particularly in the farther along areas of Floyd but it should be safe to say most fields should reach first bloom within 10 days. This gives us a shortened but still viable effective bloom window that will slam shut sometime between August 24th and August 29th with a lot of yet undetermined variables upcoming.

One of those undetermined variables is the plant bug pests. This week we had roughly 10% of our program acres reach economic threshold (ET) for fleahoppers with some Lygus thrown into the mix for a few fields. Our average square drop ranged around the 3% to 7% drop unless the fleahoppers were making their unwelcome turn toward cotton square feeding. In these fields our drop increased to a range that included a high of 28.9% (which had been at 3.1% the week prior). Our fleahopper populations ranged from none to 1 fleahopper per 0.8 row feet and well over ET. If these plant bugs are a problem, I recommend putting a stop to their damage ASAP and preserving our fruiting sites for our shortened effective bloom window this season. There might not be enough season left to replace what fruit these fleahoppers are likely to take. We continue to monitor all cotton fields and can expect our fields to be at risk of fleahopper damage until the fields can be gaged in stage by nodes above white flower but Lygus could be a problem until bolls reach 350 hu accumulation.



Blayne and Dr. Mark Kelley work at training attendees of the Mobile Field Tour in assessing plant bug damage and square drop.

found

Blayne shows attendees a few plant bug sampling techniques.



fleahopper nymph



Lygus nymphs

Corn & Sorghum

Our program corn stages remain wide and far apart with our oldest field coming in at dough stage and our youngest at V5. Our sorghum has almost as wide a range with our oldest just starting to flag and our youngest at V6. The bulk of our program acres of both crops could be described as VX. This week our only pest nearing ET is the yellow sugarcane aphid in a few area sorghum fields. With our older corn and sorghum finally putting on grain soon, we are watching for a wide array of pests with our older corn entering peak water use / peak pest egg lay / peak spider mite increase / peak disease significance and a similar mouthful stage description nearing for our older sorghum also. Dr. Pat Porter wrote an excellent article last week for FOCUS summing up what pests we need to be on alert for as these, and all the later fields, enter these critical stages.

Fall armyworm in corn and sorghum

(FAW) Larvae feed on corn ears and ear shanks and behind leaf collars. Our recent research at Lubbock has shown that one fall armyworm larva, when boring through the side of an ear, causes an average of 0.20 lbs. of yield loss per ear through direct kernel injury and damage by associated fungi. In our experiments the mycotoxin (fumonisin) levels in grain greatly increased in ears damaged by fall armyworm side entry damage. Heavy infestations may result in substantial yield losses because larvae feed directly on the ear. Additional losses can occur when shank feeding causes ears to drop and when stalks lodge as a result of feeding damage to the nodes.

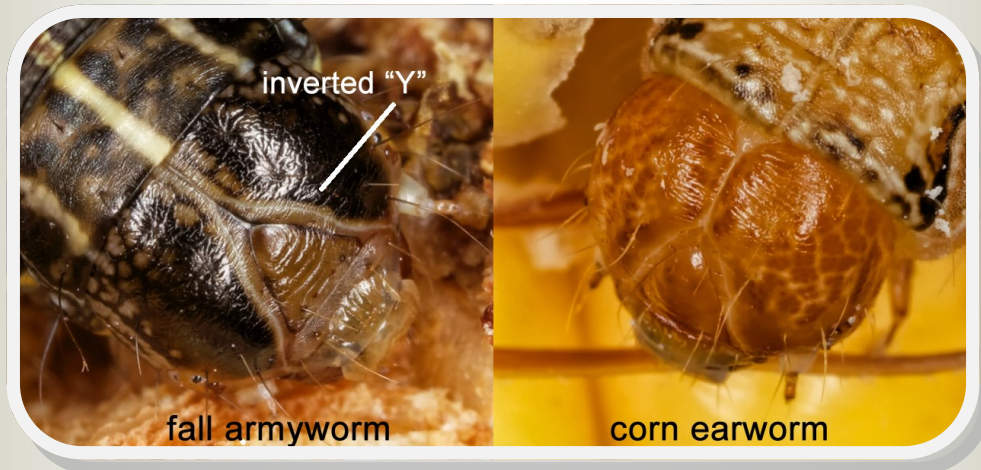
Non-Bt corn and single toxin Bt corn (Cry1F Herculex) should be scouted carefully as it approaches silking and for at least two weeks thereafter. Scouting for fall armyworms can be difficult. Check corn leaves and grasses in the furrow for egg masses. There may be 50 to 100 eggs per mass. Also check for small larvae behind leaf collars and at the bases of primary and secondary ears. Small larvae differ from late instar larvae in that they are pale tan in color and have a small black spot on each side toward the head. Larger fall armyworm larvae tend to be brown in color while corn earworm is more brightly colored in yellow, red, pink or beige.

Unfortunately, we do not have a treatment threshold for fall armyworms on reproductive stage corn. Our research trials at Lubbock have shown that if an insecticide is needed applications should optimally occur in a five day window starting at or just prior to silking. Applications made 7 days after silking were less effective at control cause many of the larvae were protected inside ears.



Larvae hatching from a fall armyworm egg mass

be-



Fall armyworm (top) and corn earworm (bottom).
All photos by Pat Porter

SUGGESTED INSECTICIDES FOR CONTROLLING FALL ARMYWORM				
Insecticides (listed alphabetically)	Amount per acre	Days from last application to		IRAC Group
		Harvest	Grazing	
Chlorantraniliprole (Prevathon)	14 -20 oz	14	1	28
Flubendiamide (Belt SC)	2 – 3 oz	28	See label	28
Lambda-cyhalothrin + Chlorantraniliprole (Besiege)	6 – 10 oz	21	See label	3A 28

Remarks

[Chlorantraniliprole](#): minimum interval between applications is 7 days.

[Lambda-cyhalothrin + Chlorantraniliprole](#): do not apply more than 10 oz per acre after corn has reached the milk stage. Research data demonstrate that use of [pyrethroids](#) such as [lambda-cyhalothrin](#) can cause increases in spider mite densities on corn.

Sorghum

Fall armyworm infests whorl stage, boot stage and headed sorghum. Whorl stage sorghum can withstand significant damage. Sorghum in the boot stage through grain fill should be scouted for headworms (fall armyworm + corn earworm). Prior to the arrival of sugarcane aphid in sorghum we would have said to determine which caterpillar species was predominate in a field and then choose either a pyrethroid (if corn earworm) or a non-pyrethroid (if fall armyworm). This distinction is because pyrethroids are not very effective on larger fall armyworm but are good at controlling corn earworm. However, things change when sugarcane aphid is present in a field; pyrethroids and organophosphates should be avoided because they destroy the beneficial insects that suppress sugarcane aphid populations. [Insecticide considerations for "other" pests when sugarcane aphid is present are covered in our special publication here.](#)

Treatment thresholds for headworms are based on the size of the larvae, the value of the crop per acre and the cost of control. The following table refers to corn earworms, but action levels are really caterpillar numbers whether they are corn earworms or fall armyworms. Note that there are two separate thresholds, one for large larvae and one for medium-sized larvae. Full details are presented in [Managing Insect and Mite Pests of Texas Sorghum](#).

Sorghum midge

A future article will cover sorghum midge in more detail, but it is possible that midge problems may be worse than normal this year because of the abundance of Johnsongrass, an early season host of sorghum midge. It is generally true that fields that bloom before August 4th in the Plainview area will not have economic midge damage. However, Greg Cronholm, Independent Crop Consultant and Extension Agent - IPM (retired) has found midge on sorghum as early as July 25th. If we start out with abundant midge numbers coming from Johnsongrass then the August 4th assumption may not hold up this year.

Table 16. Economic injury level for large (longer than ½ inch) corn earworm larvae shown as the number of larvae per acre. When the number of larvae per acre exceeds the number in the table at a given cost of control and value of grain per cwt, the value of the protected grain exceeds the cost of control.¹

Control cost \$/acre	Grain value \$/100 lbs			
	6.00	7.00	8.00	10.00
6	9,750	8,500	7,250	5,750
8	13,000	11,000	9,750	7,750
10	16,250	14,000	12,250	9,750
12	19,500	16,750	14,750	11,750

¹ This threshold table assumes all larvae will survive and complete development.

Table 17. Economic injury level for medium-size (¼ to ½ inch) corn earworm larvae shown as the number of larvae per acre. When the number of larvae per acre exceeds the number in the table at a given cost of control and value of grain per cwt, the value of the protected grain exceeds the cost of control.¹

Control cost \$/acre	Grain value \$/100 lbs			
	6.00	7.00	8.00	10.00
6	51,500	44,750	38,250	31,250
8	68,500	58,000	51,500	41,750
10	87,750	73,750	64,500	51,500
12	102,750	88,250	77,750	62,000

¹ This table assumes 81 % of the medium-size larvae will die in that stage and not contribute to additional yield loss.



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We're on the air...

***"Tuesday's with Blayne"
from 6:30—7:00 AM
on the HPRN on
1090 AM KVOP-
Plainview.***

***"IPM Wednesdays" from
1:00-2:30 PM on The
Fox Talk 950 Ag
Show. Fox Talk 950
AM - Lubbock.***

Thanks Pat!

Sorghum midge could very well be a major issue as we plan for the sugarcane aphid and try to prevent major aphid flares. We have mentioned that the average arrival date for the sorghum midge is around August 4th. Many of us planed on blooming prior to this date to avoid potential joint midge / sugarcane aphid problems. I have noted a few area sorghum fields entering bloom stage. While I would like to congratulate you on managing this sorghum crop from a true IPM stand point, we do need to remember the August 4th date is an average. Midge can arrive sooner and we should be scouting any sorghum field in bloom, no matter the calendar date. In fact going over our records from last season, we had already found sub-ET midge by July 19, 2014 and July 16, 2013. If midge do reach ET, we will be forced into dealing with one problem at a time.

Blayne Reed