

AUGUST 14, 2015

General Status

It has been a wild week indeed. Between sugarcane aphids and banks grass mites rampaging in sorghum and corn respectively and cotton reaching this year's 'crunch time' with a sudden thirst and there has been something expensive to discuss after leaving just about every field our program has ventured into this week. The biggest news of the week and perhaps month deals with the sugarcane aphid. I am re-printing here a blog release from this morning from both the Plains Pest Bugoshere and the Texas Sugarcane Aphid News.

The following was written by Dr. Pat Porter, district 2 entomologist, and represents a consensus opinion of our region's Texas A&M AgriLife IPM working group:

Sugarcane Aphid Threshold Lowered for the Texas High Plains

Now that we have had a few weeks of experience with field-scale sugarcane aphid control in the southern High Plains, it appears that we need to move to a more conservative treatment threshold than the one currently in use. What we are finding in commercial fields and our insecticide trial is that our insecticides do not seem to be working quite as well as they do in more southern locations with higher humidity and less intense sunlight. Whether our environment affects the insects, plants and/or insecticides differently is unknown, and what we are seeing could be a combination of all three factors – or two or one or none, we just don't know. Insecticide coverage issues may also be in play. We could be experiencing insecticide interception by excessive honeydew such that some of the insecticide never gets to the leaf surface. We also do not know the importance of reduction in coverage and canopy penetration attributable to aerial application rather than ground application with higher volumes of water. Additionally, we also have reports of narrow row fields (less than 36 inches) having reduced insecticide efficacy, and this of course is a coverage issue.

The preceding paragraph is basically to say that we are not sure what is causing reduced control. We want to make it absolutely clear that there is no reason to think this is a resistance issue. However, with regard to application timing the prudent thing to do is to initiate insecticide applications sooner, before the aphids reach 50-125 aphids per leaf. For that reason we are recommending the action thresholds in use in Mississippi.

Growth Stage	Threshold
Pre-Boot	20% plants infested with localized area of heavy honeydew and established aphid colonies
Boot	20% plants infested with localized area of heavy honeydew and established aphid colonies
Midge Timing	30% plants infested with localized area of heavy honeydew and established aphid colonies
Soft Dough	30% plants infested with localized area of heavy honeydew and established aphid colonies
Dough	30% plants infested with localized area of heavy honeydew and established aphid colonies
Black Layer	Heavy Honeydew and established aphid colonies in head *only treat to prevent harvest problems **observe Preharvest intervals

The threshold for soft dough stage sorghum is when 30% of the plants are infested and there are localized areas of heavy honeydew and established aphid colonies. This threshold would trigger significantly earlier insecticide applications than our Texas threshold of an average of 50–125 aphids per leaf. The full explanation of the Mississippi threshold can be found here: <http://www.mississippi-crops.com/2015/02/24/management-guidelines-for-sugarcane-aphids-in-ms-grain-sorghum-2015/>. Note that this document estimates a 21% yield loss if fields at soft dough stage are left untreated after reaching the threshold. Missing an application at the boot stage threshold of 20% of plants infested with localized heavy honeydew and established aphid colonies would cause a 67% reduction in yield.

Of course another prudent step would be to increase the insecticide rate if possible. Bayer Crop Science has some good recommendations for tank additives on the High Plains. Insecticide applications made at relatively low to normal numbers of aphids can be tank mixed with MSO/silicone blends. For heavier infestations they are recommending that Crop Oil Concentrate or High Surfactant Crop Oil be added at the recommended rates. The thought here is do drive the insecticide deeper in to the canopy.

Posted by Pat Porter

Thanks Pat and the whole working group! It has been an ‘interesting’ few days. Let’s hope the upcoming days are not this ‘interesting.’



Untreated sorghum plants at the Lubbock AgriLife Experiment Station, predawn photo 8/14/15—Dr. Pat Porter



Close up of SCA honeydew pooling on soil surface from untreated for SCA sorghum at Lubbock 8/14/15—Dr. Pat Porter

This week I noted that our aphid predator populations in sorghum are just about as high as I can recall in a heavy aphid year. The aphid parasitoid population is only mildly present and lacking severely.

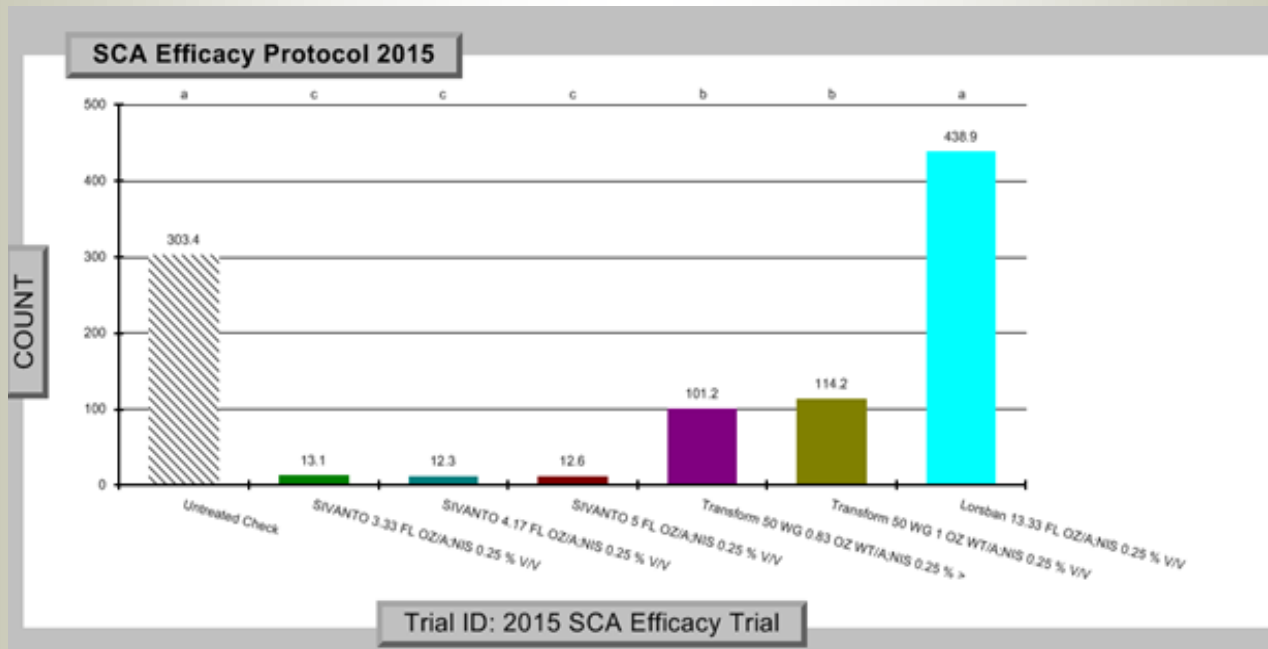


2015 Photo from Lower Rio Grande Valley of predator population cleaning up SCA. We do not have predators in this number of any species right now.

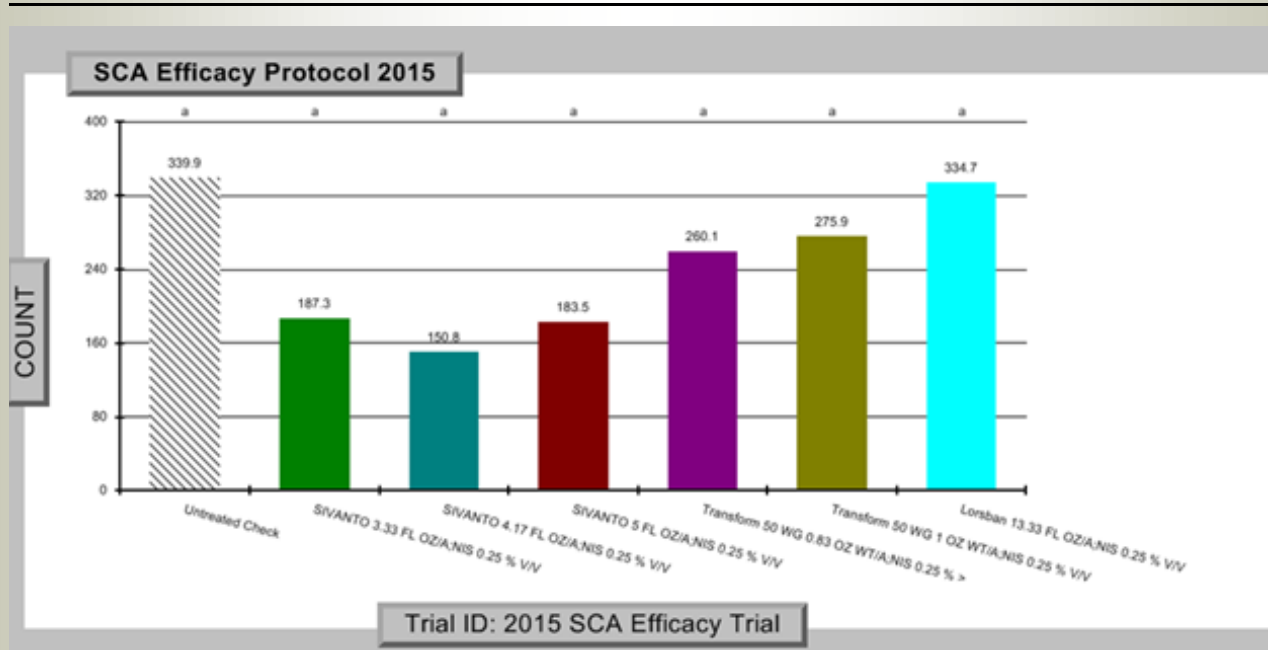
Sorghum

I should probably start the sorghum section off with the announcement that we have recommended treatment for sugarcane aphids on 100% of our scouting program's sorghum acres. This includes commercial sorghum, seed milo, and dryland sorghum.

The following charts are generated by our 7 DAT counts from our SCA Efficacy Trial just east of Hale Center.



Average Number of SCA on 2nd leaf below flag leaf at 7 DAT. ($P=0.0001$)



Average Number of SCA on lowest green leaf at 7 DAT. NS

What we are seeing from our fields that have been treated at least a week ago looks very much like what we are seeing from this SCA trial. We are not getting good control on the lower leaves and we feel that coverage is an issue. To combat this, AgriLife and companies are suggesting an adjuvant change to a silicone based product, MSO, or similar product. Both Russ Perkins with BCS and Katie Parrish with Dow both feel their products, Sivanto and Transform, will be unaffected by an adjuvant change but that an adjuvant change should help pull the treatment mix farther into the canopy. Katie went on to state that she was seeing good SCA control throughout the plant canopy when Transform treatments were being applied via ground at least 15 to 20 GPA. For the full story on this SCA Efficacy Trial - 7 DAT results, please visit <http://halecountyipm.blogspot.com/>.

Our program sorghum ranged in stage from 10% bloom to soft dough this week. There are several pests other than the SCA we are watching for at this time, and even a few we had to treat for too. We are still running a significant population of yellow sugarcane aphids in most fields alongside the sugarcane aphids. One field in central Swisher required treatment primarily for yellow sugarcane aphids, but had notable sugarcane aphids in field that were nearing our old action threshold and a joint treatment was made. In our SCA Efficacy Trial we are running a significant mixed population of YSCA, SCA, and greenbugs. We are keeping efficacy data on all species although the greenbug population is not near the economic level. On our 7 DAT count, yellow sugarcane aphid control from all rates of Sivanto and Transform looked good, including the lower leaf area but Lorsban was very weak compared to the untreated check. We will share all data from that trial in the future for your best use but during the hectic events of today we will just say that Sivanto and Transform should cover any yellow sugarcane aphid problems very well. Spidermites can easily be found in our sorghum acres, but remain just below economic levels at this time.

The bulk of our sorghum acres were in bloom this week and at risk of sorghum midge damage. We found sorghum midge in all fields that were in bloom. Most fields had less than 0.05 midge per head. One field near Hale Center had 0.383 midge per head but one field near Edmonson came in at 0.975 midge per blooming head and was at the economic level. This field was gut-wrenchingly recommended for both economic sorghum midge and economic SCA. As of today, a pyrethroid remains the best midge product, but the predator impact will be harsh. We will be watching the SCA even closer in this field for the remainder of the season.

I note in the area several sorghum fields now entering late dough and even black line. I congratulate these producers for avoiding the bulk of the SCA threat with successful early planting. However, these fields will remain at risk of potential SCA harvest issues until the combine is moving out of the field. Still, you are way ahead of the SCA.



Midge Damage,
Hale County
2013.

Corn

Our program corn remains scattered in stage with three main maturity groups. Our oldest group is ranging from late dough to full dent, our mid group is ranging from green silk to early dough, and a late group mostly falling in at a VX age with just a few peaking a tassel tip.

Spidermites, almost exclusively banks grass mite (BGM), remain our main focus in corn this week. It has been several seasons since we have seen this heavy mite pressure so widespread. We have now treated 100% of our older corn for BGM and about 35% of our mid group. So far we have not been forced to retreat any field with our first treatment just hanging on well enough to avoid a second shot yet. I have reports that show this is not the case for all area fields. For our older corn fields, it looks like a race between crop maturity and the mite population with our treatments just able to tug at the mites well enough so far. Fields should be past economic BGM damage once a 25% starch line can be identified across the field. For most of our older fields, this 'finish line' is at least 10 days out and for many of these fields the mites are not far behind.



Treated Plot for ET BGM 14 DAT, Hale County 2015



Untreated Plot for ET BGM 14 DAT, Hale County 2015

Neither of these two mite plots in our mite in corn efficacy trials look good today but we can see that treatment is having affect. That is mostly due to the fact I flared these mites when it was difficult to find mites earlier this year. Then the mites took off in a 'perfect storm.' Our efficacy trial this year certainly has plenty of pressure and we can get a look at some good data this off season with a one shot treatment on ridiculous pressure.

The BGM population in our mid maturity corn group is a little more hit and miss. Some fields have been treated already and in a minority of others mites are hard to find. The addition of some mild drought stress is likely a key factor in these BGM populations. We will have to wait and see what the future holds for our latest maturity corn group, but typically the later in the growing season, the less risk there is to BGM problems. This lighter mite threat for the latest corn group might be offset by an increase in disease potential. Our corn diseases this week were also very spotty for the two later developing corn groups and control looks good on our older group.

Cotton

Our program cotton ranged in stage from 6.3 nodes above white flower (NAWF) up to and beyond absolute cut-out of 3.5 NAWF with most fields coming in between 3.8 and 5.2 NAWF. We had no pest of consequence in cotton this week with just a few Lygus, and very small populations of mites and aphids popping up. We remain on guard for Lygus moving into our fields from primary hosts plants such as alfalfa, clover, and several weed species once these host plants are disturbed. Lygus will become economic when across the field Lygus average 1 Lygus / 2.5 row feet for cotton at this stage.

For cotton in this area I feel 'crunch time' is when the crop is between 3.5 and 5 NAWF. That is certainly now. We are at peak water use and peak boll set just as most fields are going quite a long time without a rain. Any drought stress at this time will cause significant and unrecoverable yield loss and fruit drop. Conversely, the longer we can keep the fields above 3.5 NAWF and setting bolls and developing, the wider our effective bloom window will be. Even for fields that have already reached absolute cut-out at 3.5 NAWF, boll set as a percentage looks good and every drop of water is currently aiding in fiber development for a while longer.

Bollworms & FAW

In both Hale and Swisher County we had a huge jump in our adult bollworm moth trap catches this week. We should be on the lookout for the soon to come larva in our cotton and sorghum fields. I would expect most of these moths will be laying eggs in our late corn where they will be on no economic significance with the late corn acting as a 'sink' crop. There are no guarantees with pests and the potential is there for headworms and / or bollworms becoming a problem soon.

FAW has increased slightly, but is still very low. I would suspect it might prefer the sorghum or corn equally if they become a problem.



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<http://hale.agrilife.org>

For quicker pest alerts-

*Plains Pest
Bugshere:*

<http://halecountyipm.blogspot.com/>

*Pest Patrol Hotline,
registration at:*

www.syngentapestpatrol.com

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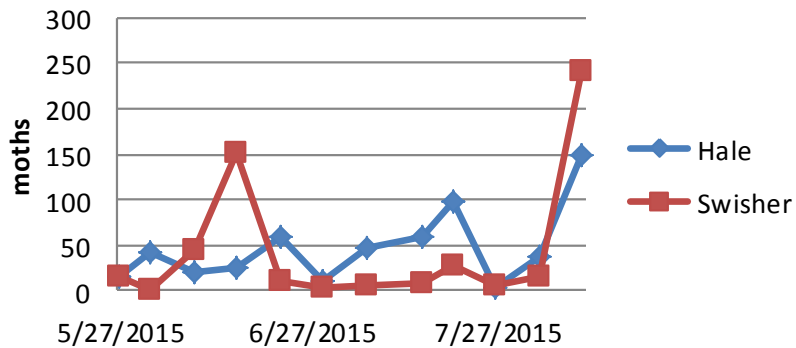
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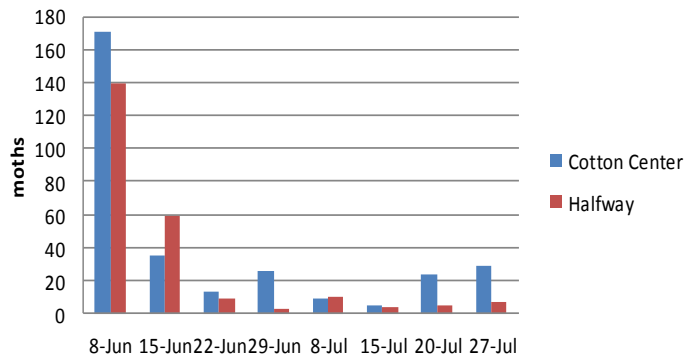
*"Tuesday's with Blayne"
from 6:30—7:00 AM
on the HPRN on
1090 AM KVOP-
Plainview.*

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

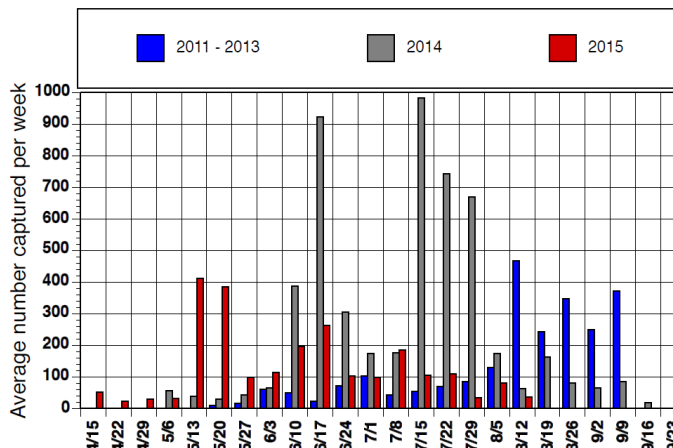
2015 Bollworm Moth Trap Catches



2015 FAW Moth Catches - Hale



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



Blayne Reed