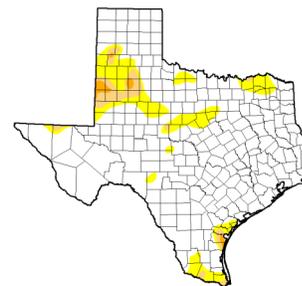
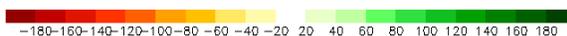
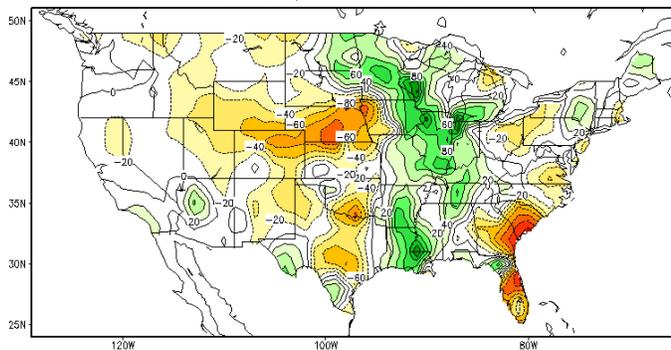


AUGUST 26, 2016

General Status

Hale, Swisher, & Floyd have been damp and cool this week with our high temperatures mostly hanging in the 80s. Some small areas got buckets water dumped from above while areas just down the road were just kept damp. This brought a mixed bag of blessings and headaches depending on what crop is grown and what stage it is in. Most corn and sorghum fields are agronomically loving this week unless harvest was delayed. The increase in moisture also usually helps control spider mites in these crops but also aids in spreading fungal diseases which will need to be watched for economic impact. Cotton fields that are well cut-out with large bolls in the top crop and no more blooms to make are enjoying some good boll fill while what will likely be the last few passes of the irrigations are made. Fields that have been cut-out for quite some time, dryland cotton mostly, regrowth is a real concern. Lusher cotton fields either not cut-out yet or still with blooms in the top crop trying to make this late are causing some concerns about potential maturity issues and regrowth potential. Thanks to another heavy round of bollworm moth flights, likely brought up with the winds carrying the moisture, those lush cotton fields are now at serious risk for economic worm infestation as are most sorghum fields not already at hard dough stage.

Calculated Soil Moisture Anomaly Change
 AUG 25, 2016 from MAY 31



Cotton

This week our Plains Pest Management cotton fields ranged in stage from 4.2 NAWF (nodes above white flower) to absolute cut-out with no visible fruit yet to set. Boll load remains high as it looks like most fields are hanging on to all the fruit possible given each field's circumstances. There are still plenty of fields not at absolute cut-out. These fields have flown right passed the average last effective bloom date that I feel comfortable managing fruit for and are now begging for a long and hot fall no matter the management attempted at this point. The weather and cooler temperatures a quite a bit to do with the current status on those fields, but it was pushed along by a forced late planting. We will be looking at pulling these fields in with the tools at hand, such as limiting irrigations, PGRs, conditioning treatments, etc. which will all help but ultimately now it depends on the fall as to the quality of these fields' harvest.

Our beneficial counts remain high this week. We owe quite a bit to these guys in our cotton this year from start to finish and it looks like we might be needing every one for a bit longer. The following is taken from our Plains Pest Bugoshere this week dealing with bollworms:

Late August 2016 Bollworm Threat

On August 8th our adult bollworm moth traps caught our 'typical' annual flight of bollworm moths migrating their way on to the Texas High Plains region. We monitored this annually expected population of bollworm egg lay carefully and got the alert out to be watchful in non Bt cotton fields and headed sorghum. Despite the notable risk to sorghum and lush and late non-Bt cotton, most of the worm egg lay went toward a large amount of late planted corn acres, just then coming to tassel stage and the worms preferred host plant, as we then expected. In the corn the bollworms, or corn earworms as they can be referred to in that crop, are of little economic consequence as, eventually it is survival of the fittest with the worms eating each other until there is only one worm per ear. The damage these worms do is limited to just the tip of the ear. Because this light damage is not economic in West Texas



Photo from what I might consider an average cotton field for our 2016 cotton crop. Good plant, good boll load, a touch late, hard fought over weeds, protected by

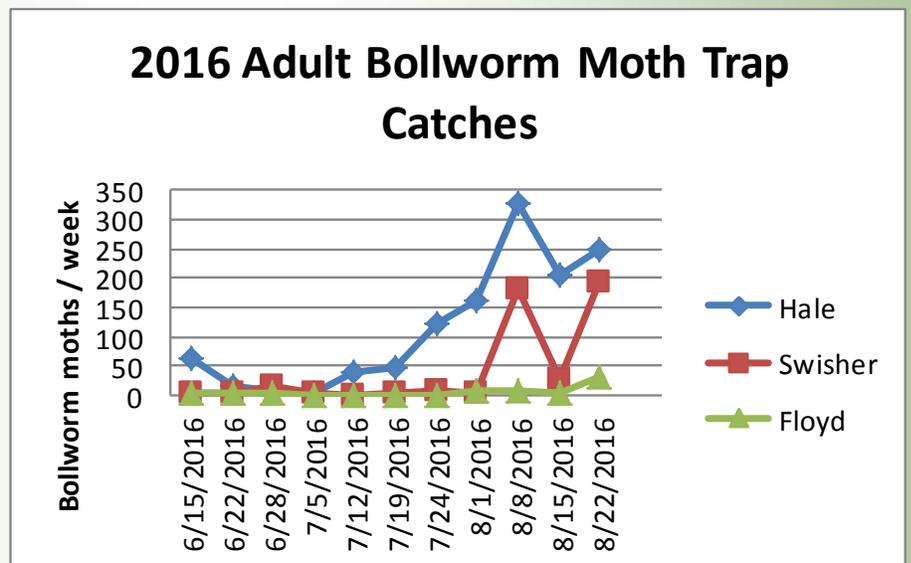
we tend to let the worms be in corn, viewing this type of egg lay in late corn as a sink crop that is not economically impacted by their feeding. Some of these moths did lay eggs in sorghum, also a preferred host for the bollworm over cotton and second only to corn. Here the damage could be much more of an issue. However, a very healthy population of beneficial insects and predators held these worms from becoming economic, almost dropping the population in sorghum below detectable levels. With the August 15th adult bollworm moth trap catches declining, we felt that the treat had ended with minimal bollworm damage. That is until we checked our traps this week.



Bollworm harmlessly feeding on corn ear tip with more eggs and worms in the background.

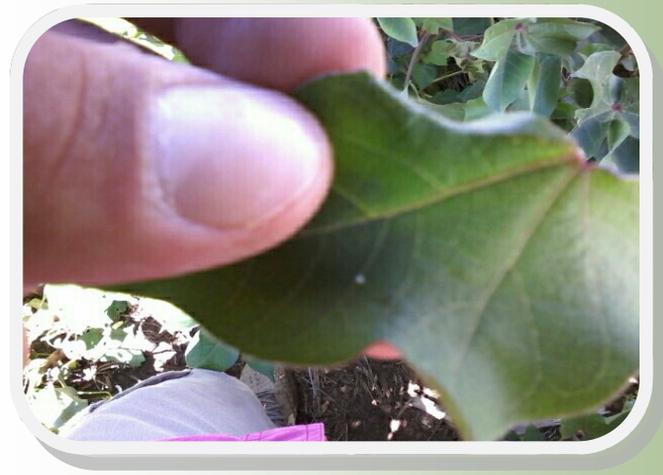
Our August 22nd moth catches indicated another big round of bollworms and large bollworm egg lay for Hale, Swisher, & Floyd. These moths were likely carried north with the recent moisture. Having two major immigrating moth flights is un-

common but not totally unprecedented. All economically threatened fields should be scouted thoroughly for bollworms eggs and small larva this week. We expect many of these moths to also be drawn to corn again, thankfully acting as a sink crop. Daily more and more corn fields mature



past a point that will be attractive to the adult moths looking for acceptable host plants to lay eggs into. This is likely to put more pressure onto headed and not matured out sorghum fields and lush non-Bt cotton not having reached absolute cut-out of 3.5 nodes above white flower yet and still having young fruit easily attacked by small bollworms.

Another cause for concern over this bollworm moth flight comes as an alert from the San Angelo area, and even farther south into South Texas. Just this last week entomologists and IPM specialists from Texas A&M AgriLife and private companies announced that they were finding populations of bollworms that had come through Bollguard II (multiple trait *Bt*) cotton. While the cause of this is still under investigation it does coincide with field experiences farther down State earlier this summer. The most important note for this region is that this large bollworm moth flight is that they are very likely to have migrated here as adults from the San Angelo region where they spent their larval forms feeding upon that area's crops a few weeks ago.



Bollworm egg found by our field scouts this week in a Swisher cotton field.

I would suggest that all area cotton, both *Bt* and non, be scouted intensely for bollworms. While the majority of these worms should be 'sunk' into late planted corn where they will be of no economic importance, we can make no real predictions. Lush cotton of all types should be a very attractive and viable host for these worms as should most sorghum fields. Due to the lateness of the 2016 crop, we do have a larger than normal percentage of fields that would fall into the lush cotton or sorghum category.

This week Tommy Doederline, EA-IPM Dawson & Lynn had an excellent article I would like to share with you here dealing with irrigation termination in cotton:

Irrigation Termination

Terminating irrigation is always a question this time of year. Late applications of excessive water can lead to many problems, including boll rot, late season regrowth, an increase in late-season insect activity (as mentioned above with bollworms), added harvest aid inputs and possible grade reductions. Based on research I conducted at the AG-CARES farm, the most economical target for timing the termination of irrigation appears to be when 600HU past cutout has been accumulated. Or use the Rule-of-thumb for pivot and drip irrigation to discontinue 1 to 2 weeks after open boll or until about 20% of the bolls are open. As always we must apply common sense to our decision. Such as, those areas that received 2+ inches of rain yesterday (August 25), probably do not need to start up their irrigation systems again this year.

Corn

This week our program corn ranged from silk to 30% starch line. The bulk of our earlier planted corn is in late dent and starting to form a starch line. These earlier fields will only be at risk for insect damage a short while longer. With the population of spider mites crashing in our program's earlier planted corn, the only pest that should be able to impact them would be fall armyworms (FAW). If the FAW remain at the ear tip to complete their larval stages, they should be of limited if any economic impact but we will be watching for FAW to move down to the base of the ear and try to girdle the stem causing the ear shank to weaken leading to the dropping of the ear off the plant. That seems unlikely based upon what we are seeing in the field, the attractiveness of those fields to fresh egglay and on the level of FAW moths are being caught in our area.



BGM starting to infest a lower leaf of a late planted Hale corn field.

Our later planted corn is grouped around green silk to blister. These fields are very attractive to FAW and bollworm (corn earworm in this case). Hopefully they can absorb much of the moth egglay where the ear tip feeding will be of no economic concern. Spider mites continue to be found in these fields in higher populations than we would expect given the cooler temperatures, moisture, and mite specific predator populations we have been tracking. Corn diseases including common rust, Southern rust, and corn smut continue to increase in these fields higher than we counted in the earlier planted corn but we have

not encountered anything economic yet. Of the three diseases we have noted, only Southern rust should be a serious issue barring extreme circumstances.

Sorghum

Our program sorghum ranged in stage from flag leaf to early hard dough. Sugarcane aphids (SCA) continue to make the headlines as our most threatening pest in the area. They are still not alone, even just in sorghum.

The yellow sugarcane aphid (YSCA) continues to be a noteworthy pest right beside the SCA much later in the growing season than what most would consider normal. While it has been sometime since the YSCA alone were the main cause for aphid concern in sorghum in 2016, they should not be ignored. Pound per pound, the YSCA does much more damage than the SCA, while the SCA makes many, many more pounds of aphids very quickly. There has been some concern about treatments of Sivanto and

and Transform being applied for SCA controlling YSCA. While I cannot trace the origins of this concern, other than lighter than recommended rates, potentially light GPA applications, or extreme heavy canopy cover that led to a failure in coverage aside, I feel very comfortable with Sivanto's and Transform's ability to control YSCA. We have local research data on the efficacy of these two products and some ample field experience that show these two products worked and are working very well on the 'other aphid,' if the other three criteria were met.

The same can be said about the SCA and control this year.

If these three criteria, and possibly a fourth, were met, SCA control has been good. In fields where there was a hiccup of any kind, the all too familiar SCA troubles return. As of today, 100% of our program sorghum is infested with the SCA. Only about 60% of our fields has reached our Texas High Plains ET of 30% infested post headed plants with 50 aphids per colony. The level of SCA control for our fields was still dependent on the treatment criteria. These criteria listed out are:

1. Use solid rates. Minimum 5 oz. / acre for Sivanto and 1.2 oz. / acre for Transform. These rates are considered minimum.

Higher rates could easily be warranted.

2. Use the maximum amount of GPA possible. This should be a minimum of 5 GPA by air and 15 GPA by ground. Again, these are the minimum requirements. More will be of a major benefit and it is much easier to increase GPA via ground application.
3. If there is a thick or unusually tall canopy, then it will be difficult to obtain SCA control on the lower leaves and might need to be addressed by addressing criteria 1 or 2 and preferably increasing both.
4. Salvage the beneficials with every decision. If the predators are taken out before a SCA treatment, with a SCA treatment targeting another species, or after a SCA treatment, SCA control will diminish in the long term. they could very easily recover to a level that a second SCA application could be warranted.

Speaking of other pests, the bollworm moth flight (referred to as headworms in sorghum) and ongoing egglay is a major threat to headed sorghum not already at black line. Our headworm numbers have increased to an average of 0.2 worms per head this week with the lowest field being 0.08 and the highest being 0.33. These numbers come from extreme areas of our scouting



Surviving SCA & YSCA on lowest leaf following treatment in a thick canopy situation.



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For quicker pest alerts-

***Plains Pest
Bugshere:***

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

***Pest Patrol Hotline,
registration at:***

www.syngentapestpatrol.com

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We're on the air...

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

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

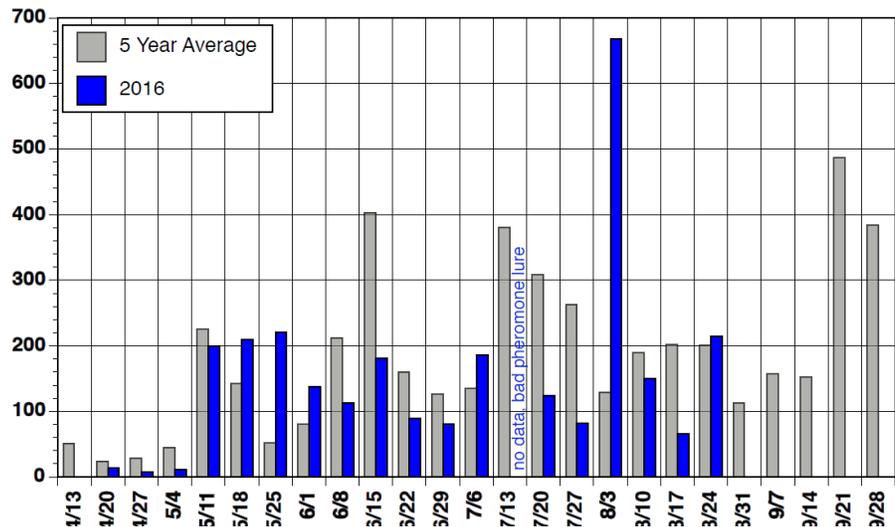
***"IPM Report with the Bruiser"
from 7:06-7:15 PM on
1470 AM KDHN -
Dimmit.***

program from the Cotton Center area up to north of Tulia. This indicates to me a very evenly dispersed egglay but also an outstanding predator and parasitoid population in all areas that have kept these worms from getting out of control. If these headworms do become economic, I strongly suggest a control product that will be very easy on our predators so we do not lose SCA control and need to retreat.

Alfalfa

In our program alfalfa fields we are noting a significant population of blister beetles. These blister beetles do not harm the alfalfa but rather the hay quality as they can when bailed into horse feed then lead to poisoning of horses through the blistering of the horse's mouth, esophagus, and stomach. Our populations were not enough to be problematic yet, but it could be an issue for area alfalfa producers and their customers. An economic population of blister beetles would be about 10-15 per 20 sweep net sweeps just before cutting. Please see appropriate labels for treatment options.

Average number of fall armyworm moths per trap, Lubbock, Texas 2016. Current year averages are based on two traps.



Blayne Reed