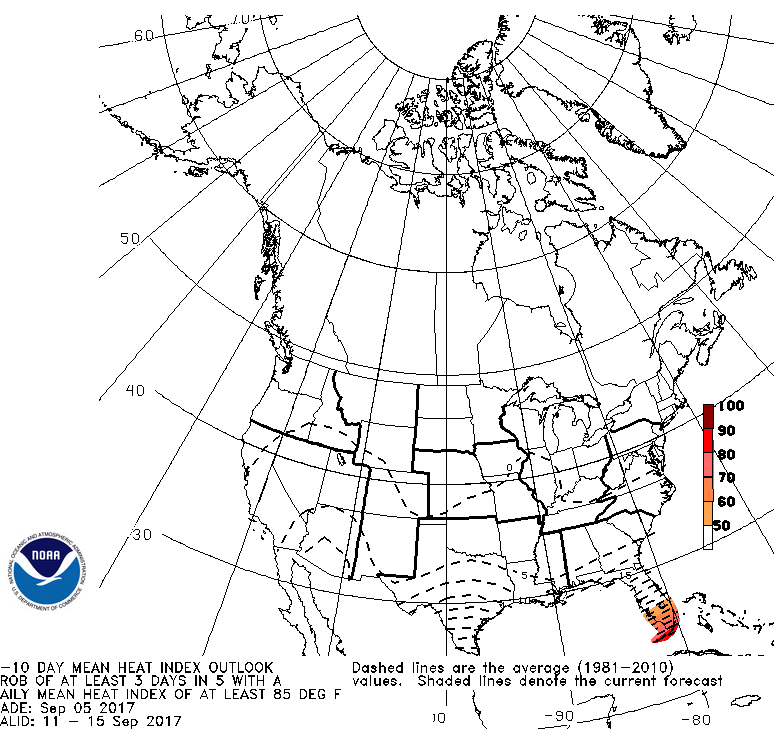


SEPTEMBER 6, 2017

General Status

I would love to say the pest pressure is winding down as we slip toward fall. The problem is, the pest pressure isn't really winding down at all but fall gets closer daily. Our late planted grain crops, sorghum and corn by name, are in the thick of a multi-pest high threat level while our early planted grain crops are looking toward the harvest bin. Cotton remains a mixed but progressing bag of maturity, management, and pest risk probabilities. Regardless of what stage each cotton field is in, or what pests are in them, producers remain very desperately hopeful for additional heat units to accumulate while they can.



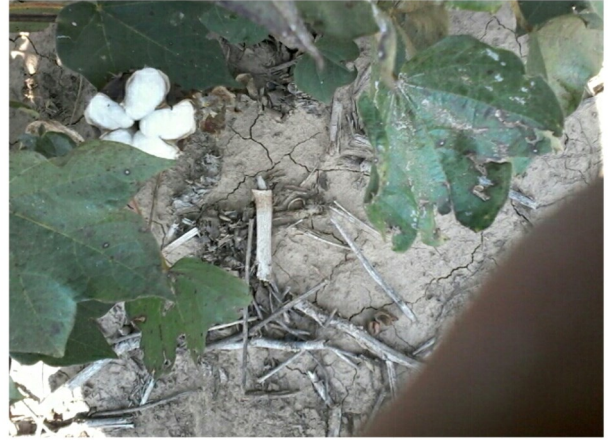
Link to the TAWC heat unit calculator with today's calculations, starting on May 29th, shown below: [http://www.tawcsolutions.org/html/web\\_tools.html](http://www.tawcsolutions.org/html/web_tools.html)

<b>Cotton Start Date</b>	<b>Cotton End Date</b>
5/29/2017	9/6/2017
<b>Cotton Total Heat Units</b>	<b>1,629.55</b>

## Cotton

Over the past week we finally found our first open boll of the season. This was in one of our older / earlier planted cotton fields and was followed by a handful of fields that have been cut-out for some time. Most of the Plains Pest Management scouting program fields came in at a recently absolute cut-out stage with blooms averaging at just less than 3.5 NAWF with several still hovering around a very late 5 NAWF. Limited irrigation fields that have been cut-out for some time are starting to regrow fresh top growth that does not look too serious

yet. Hopefully, with serious boll development ongoing, the plants in most situations are utilizing the large volume of rainfall received through mid and late August and not wasting the moisture on too much vegetative growth. Jim Bardovsky, irrigation engi-



First open boll found in the scouting program. Southern Hale  
8/31/17.



View from under the canopy of a 4.7 NAWF field in Central Swisher. 9/4/17.



Snapshot of a plant just reaching absolute cut-out in Western Swisher. 9/5/17.

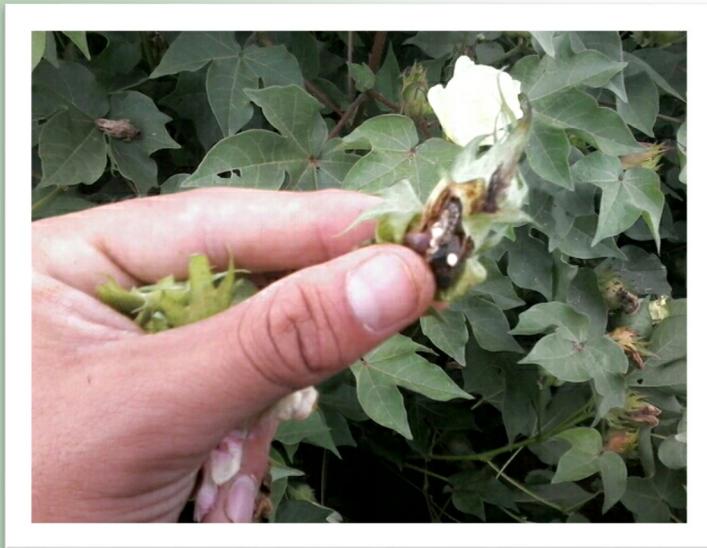
neer, Halfway Station, shared through conversations that cotton plants in his heavily monitored irrigation trials have used most of the rainfall already and to be 100% content, in the plots where this level of plant contentment is needed, irrigations might be already needed. For most practical field situations, some light boll fill irrigations through drip or pivots could be warranted soon if the field has reached cut-out, bloomed out the top, and is not actively regrowing. Fields that can be considered 'rank' by any measure should not need much more irrigation soon.

## Active Cotton Pests

### *Bollworms*

Our adult bollworm moth traps are still capturing huge numbers in Hale, moderate numbers in Swisher, and light numbers in Floyd. Our numbers at our Floyd site have never been notable and a location change might be justified for next season. Otherwise the bollworm population should still be considered very active and a threat to many fields. Our field data from our scouting program agrees with this data. We can still find eggs in most fields. All of our non-Bt cotton fields have been treated at this time with populations ranging this week from none found (treated successfully last week) up to 23,750 bollworms per acre. A odd handful of TwinLink and Bollguard II fields have also been treated but for a reduced surviving but economic populations up to 10,892 but at least 8,000 bollworms per acre. These fields were the exceptions and not the rule. Generally, Bt cotton fields, even those requiring

treatment, have given benefit this season in bollworms control. There were many Bt fields of all types found this week with economic populations of small, just out of the egg bollworms but were given a few days for the larva to ingest the Bt toxin before seriously considering treatment. Revisiting these fields as we can with cursorial checks has proven to be the most economical choice as few, if any, larger worms have been found. Fresh egg lay continues, but admittedly not as heavy as a few weeks ago.



Medium sized bollworm found inside small boll. Southwestern Swisher. 8/28/17.

Fall is fast approaching. The change is already in the air, even as good heat units return to the forecast soon, the hours of daylight are shrinking rapidly. For this next week, most fields should still be at bollworm risk and our scouting should remain intense for a while longer. At some point in the near future, all cotton bolls on the plants will either develop past a point that bollworms can economically establish in them or any bollworm establishing in a field will most



Small and Medium bollworms popped free from shed bolls onto a drop cloth for close examination. Southwestern Hale. 9/4/17.

likely only be feeding on junk fruit that has no chance of making into a harvestable boll. We have recommended treatments for bollworms in September this year and will not hesitate to recommend more if economic bollworm situations arise over the next week. However, the point where bollworms should not be able to economically damage the majority of fields is within sight, even if the moth flight continues.

### *Cotton aphids*

We continue to find cotton aphids in over 95% of our program fields but not at an intense rate or as high a per leaf amount. The vast majority of our fields ranged between 0.14 and 4 aphids per leaf with very few over 10 aphids per leaf. Almost all of the aphids we did find are of the yellow morph type, indicating the environment is not ideal for the aphid for whatever reason. In addition, beneficial populations are rising rapidly to take advantage of the aphid buffet occurring in cotton too. Lady bug larva, minute pirate bugs, Nabids, and lacewing larva are very common with only parasitic wasps missing from cotton with both sorghum and cotton experiencing heavy aphid populations. Luckily, all species mentioned also feast upon bollworm eggs, as do fleahoppers which are also very high. The only exceptions to similar cotton aphid situations I have reports of are in fields treated with hard on beneficial products for bollworm control. These products removed beneficials from the equation and flared the aphids. In many of these situations, the older product failed to control the bollworms and the aphids had to be treated to maintain economic control.



Stock photos of both the yellow and blue/green morph of the cotton aphid. The darker morph indicates 'happy' aphids.

We will need to maintain a watch for cotton aphids on cotton leaves until the populations completely collapse (by treatment and /or predation/parasitism) or 100 % leaf drop. Once we see a substantial number of open bolls, the ET for cotton aphids is around 12 / leaf. Until then, the ET is at least 50 / leaf but be as high as 90 / leaf if the plant is not otherwise stressed.

## Corn & Sorghum

With our older corn and sorghum fields pasted economic pest damage (except for SCA and any harvest issues) and drying down for harvest, we are only concerned with our later planted grain fields. Our corn field has reached late dough stage while our sorghum ranges between a slow 80% bloom and dough stages. Both crops are the preferred host plants and at stages highly attractive to bollworms (corn earworm / headworms) and fall armyworms (FAW / headworm) at a time when moth flights are very active. Late corn should also be attractive to western bean cutworms.

Dr. Katelyn Kesheimer, IPM Agent Lubbock & Crosby, and Dr. Pat Porter, District 2 Entomologist, are reporting many sorghum fields to our south at serious economic levels with headworms.

Our Hale & Swisher sorghum fields are ranging between 0.16 up to 3.84 small headworms per sorghum head with just a minority of our fields reaching economic levels so far. So far, 100% of our headworms have been bollworms. To review our how to scout for headworm video from last year: <https://www.youtube.com/watch?v=Exki0Veiu9Y&t=16s>

To reach the handy headworm calculator: <http://www.texasinsects.org/sorghum.html> .

In our program corn, we averaged 4 corn earworms per ear this week. Despite high numbers, CEW should not be economic in corn acting like a 'sink crop' for CEW with the damage only occurring to the tip in most cases. Fall armyworms can feed similarly, but will also move down the ear and feed on tougher / drier grain and in some cases, will feed at the ear shank causing much more economic damage. Western bean cutworms will hatch from eggs near the tassel, feed upon pollen sacks, etc. before moving down to the mid-ear area causing economic damage in that way. So far, all of the worms found in our late corn field have been bollworms.

Sorghum midge were also a major concern in blooming sorghum fields. Our last remaining field in bloom held 3.6 midge per blooming head this week. This is a very high number of midge. If you have sorghum at bloom, I strongly suggest scouting daily throughout bloom stage. For our sorghum midge scouting video: <https://www.youtube.com/watch?v=K4Flf4AdeNw&t=27s>

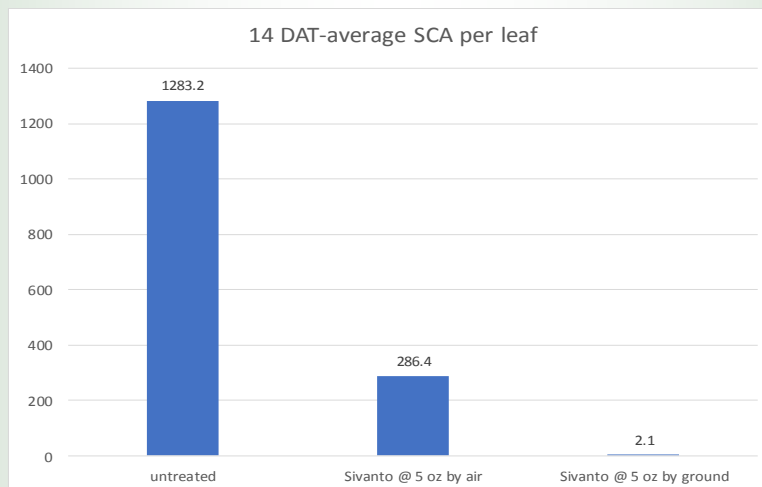
And the sorghum midge calculator can also be found at: <http://www.texasinsects.org/sorghum.html>



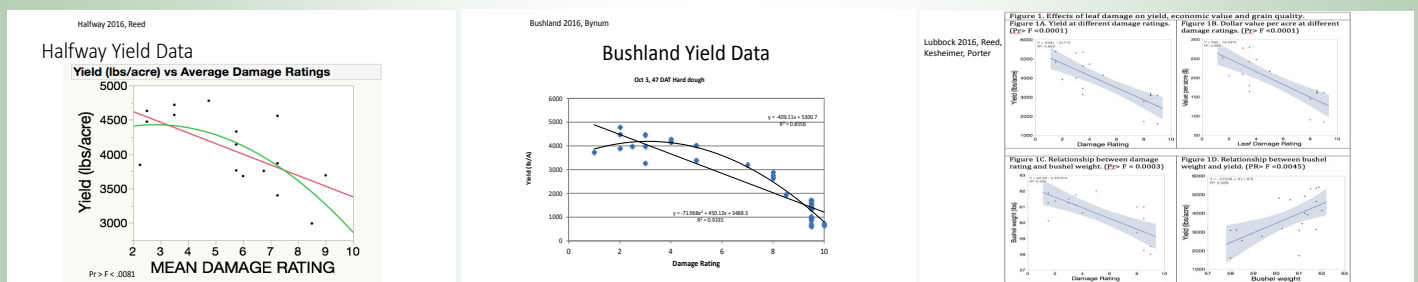
Our worst level of CEW damage in our corn this week. NW Floyd.

Our field over threshold for sorghum midge also had economic levels of headworms and sugarcane aphids giving this field the prize this season for headaches under the current sorghum economic environment. All three had to be addressed. Luckily there is one hard to find product, Blackhawk, that can control both midge and all types of headworms while being beneficial friendly while not interfering or impeding with SCA control. If sorghum midge is not an issue while headworms and SCA are, the list of headworm control products that are still beneficial friendly increases. Staying with the beneficial friendly products for headworm control should help keep SCA in check with only one good treatment.

Our SCA population this week continues to be a serious issue in most fields. Amazingly, we do have a field of late planted sorghum at dough stage that has not been treated for SCA and where SCA are still very hard to find. Most fields have been treated for some time. If the first treatment was a good one with plenty of GPA and made in a timely manner, SCA control has been outstanding. For example, I will share our 14 DAT data from a Texas Grain Sorghum sponsored trial we currently have active.



Many of our SCA treated fields are getting far enough out that we are starting to evaluate for any dreaded re-treatment needs. This was also the subject of some of our research trials in 2015 & 2016. Our results indicate that for a second application, and with grain development moving to dough (starting to show grain color) up to black line, we can 'ease' our economic damage levels to protect the upper 50% of the sorghum plant from SCA damage or keep the SCA damage rating below 5.





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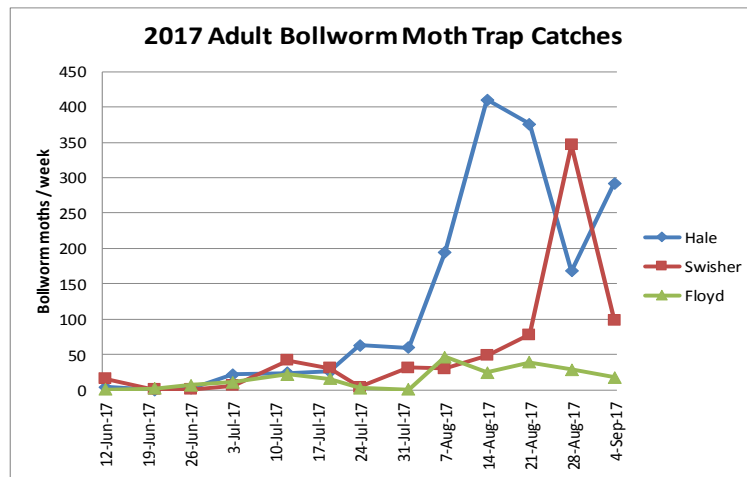
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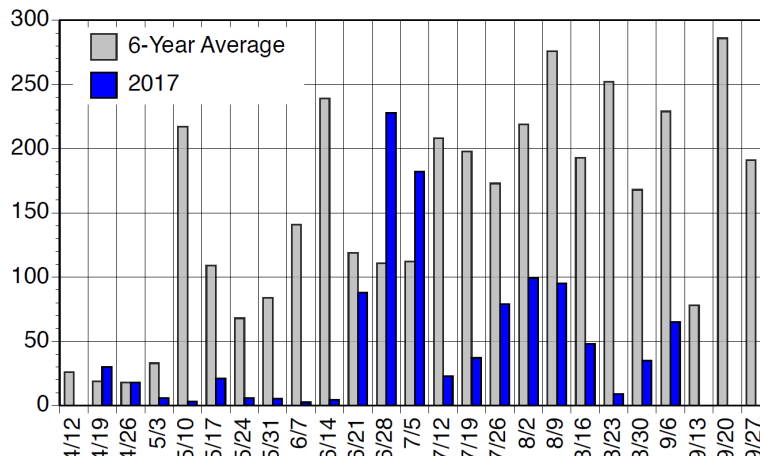
6:30—7:00 am on the  
HPRN network on  
1090 AM KVOP-  
Plainview.

Spidermite are in 100% of our corn and sorghum fields, but have not increased, and in most cases, decreased in severity. We continue to be vigilant in scouting for diseases in the late corn.

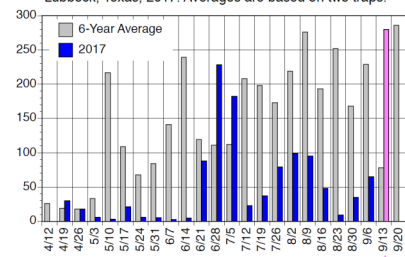
The number of FAW trap captures has been very light over the past few weeks, as have been our field findings in multiple crops. Dr. Pat Porter related that his traps at the Lubbock Station, "have really picked up in the last two nights." He has provided an extrapolation chart if this trend continues. If this holds, we should start seeing FAW in our corn and sorghum soon.



Average number of fall armyworm moths per trap per week, Lubbock, Texas, 2017. Averages are based on two traps.



Average number of fall armyworm moths per trap per week, Lubbock, Texas, 2017. Averages are based on two traps.



Projected based on most recent nights' captures

Blayne Reed