

# Plains Pest Management News

AUGUST 10, 2018



**A southern Swisher failed dryland cotton field that received a planting rain for a 2nd crop replant, but not much since.**

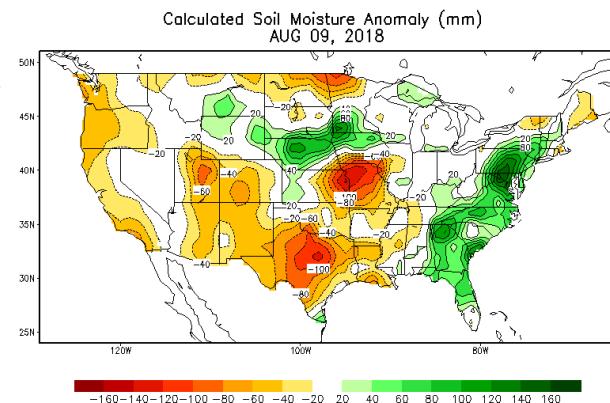
For many fields are so dry they are in a situation where rains of less than 0.2-inches might do more harm than good once cation exchange and evaporation are actually calculated and more net moisture is lost than gained. Still these rains coming a bit more frequently might be the starting pings of breaking a droughty pattern. With more rain in the forecast this week we can hope, even if it would be a bit later than we would have preferred.

Insects continue to be ‘interesting.’ This season we have had and continue to have just about every insect pest known to West Texas cotton, corn, and sorghum come through or set up camp in alerting levels. Yet we have had just a relative few fields reach economic levels. Several and varying factors for each field have kept these pests from becoming widespread.

## General Status

Hanging on through another very dry and busy week. Multiple rain showers did crisscross the area spottily this week, some leaving measurable amounts of moisture. The highest amounts likely fell last night and this morning. Totaling for the week with my best information, fields received between a trace and 0.92-inches with most getting less than 0.4-inch total. Each drop counts as most cotton sets some of its last bolls, corn finishes filling ears, and sorghum either sets grain or moves through its vegetative

CUMULATIVE HEAT UNIT Calculator	
Corn Start Date	Corn End Date
4/24/2018	9/20/2018
Corn Total Heat Units	2860.20
Cotton Start Date	Cotton End Date
5/16/2018	11/5/2018
Cotton Total Heat Units	1609.50
<a href="#">Calculate</a>	



Beneficial situations such as excellent predator populations, crop stage, IPM implementation, technology, lucky availability of sink crops, and even the hot dry conditions have played a role in holding pests below the economic lines. We are far from trouble free though. **I can state with confidence that this week and for the near future, if a field of any type can be described as lush, or even ‘young,’ it will be very attractive to insects of all types.** Keeping a careful eye on all the pest/beneficial happenings has found fields that needed treatment for variable issues. This week was no exception with a few scattered fields of various crops needing treatment for economic pest situations overcoming the beneficial. Without good and careful scouting, these fields could be missed by the big picture with serious economic loss only adding to a dire economic situation.



Southwestern Hale cotton field in cut-out and setting its last bolls. The pivot finally got some 0.4" of moisture help this week. It was quickly used.

## Cotton

About 84% of our program cotton fields are now in absolute cut-out of 3.5 NAWF or less. Despite the common ‘cut-out mass fruit shed,’ 98% of these fields are still setting as many squares to bolls as possible and making use of every drop of moisture they receive. Of the fields not in cut-out, most are now at 4-5 NAWF and not far behind. Somehow, we do have one very late and slow-moving field at 9/10 grown square.



Southern Swisher boll load this week.

This week, if a field could be described as lush, or even young, our insect activity was off the chart with beneficials, pests, inconsequential factors vying to make their mark and the outcome of the field in balance. We had bollworms, Lygus, stink bugs, beet armyworms, cabbage loopers, spider mites, aphids, fleahoppers, and whiteflies turn up in our data sets. Of these the aphids, whiteflies, spider mites, BAW, and cabbage loopers, and on a pest setting, the fleahoppers were hardly worth mentioning as a preeminent threat but should be watched.



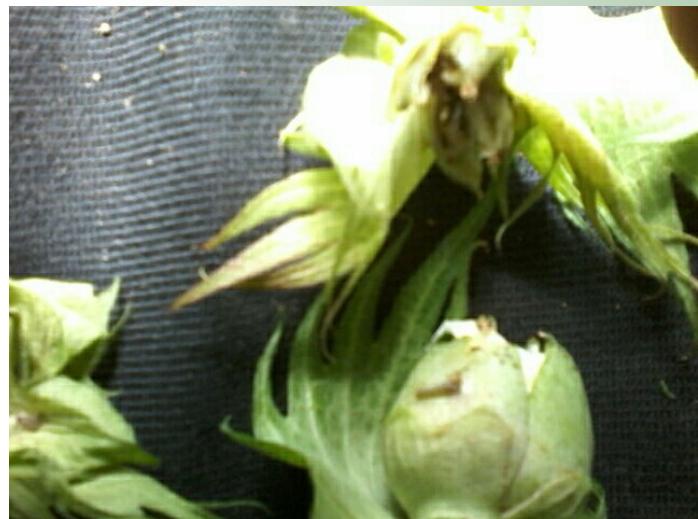
**Stink bugs unpleasantly turning up on our data sets.**

Our stink bug population has not really increased or decreased much over the past few weeks but is steady with about 1 in 5 fields having some sub-ET level. Lygus increased to near ET in one field this week as a result of road crews shredding roadside ditches and disturbing some clover habitat chasing the pest into our neighboring cotton. This migrant adult population reached 1 Lygus per 3.4 row feet, very near the most used ET of 1 Lygus per 2.5 row feet. The field was already in cut-out and was experiencing cut-out shed. Much of the Lygus were damaging small bolls that the plants were dropping

anyway so we were not concerned. For fields in this situation, I suggest the ET for Lygus should be 1 Lygus per 1.5 feet if you can find ample fruit known to be dropped exclusively due to plant bug damage.

This week we had another non-Bt field reach threshold for bollworms. This population reached 11,000 small bollworms per acre with 5,500 more eggs found per acre. Beneficials had made a large dent in this potential worm population, as they have for most fields. In this case, it just was not enough to prevent economic damage with an ongoing egg lay finally outpacing predation. This field is a very lush drip-irrigated patch with little green in the near vicinity and is in one of our trouble areas where flights have been ongoing for several weeks now. All other fields held 0 to 6,000 surviving bollworms and 0 to 15,750 eggs per acre. The ET for bollworms remains at 8,000-10,000 worms per acre or 6% of harvestable fruit damaged by active worms.

In fields that could be described as dry or hot, any insect activity was hard to find. According to our program acres, there are only about 2% of the cotton fields developed past a point that would be past economic primary insect pest damage so far. As the bollworm moth flight continues and/or is moving from developing grain crops, they will be looking for any viable host. Their preferred hosts of younger corn and sorghum will be and currently are being targeted first, but as crowded as these fields are, and will become, any lush cotton field will be next, followed by any still viable host. This could include less than worm ideal cotton of any technology type. All cotton, regardless of Bt type, should be scouted. We know these worms caused economic issues in all Bt types



**Small bollworms turning up in our threshold field this week.**



One of many bollworm eggs found across our scouting program this week.

### Bollworm Trial Results

Your first question might be “how well is Bt working this year?”

To answer this, we have several efforts underway. The easiest to describe is the first. We have made collection of local worms and sent them off to be screened for resistance. We do not have results yet but should by our meeting season this winter to better prepare you for next year.

Next, we are working with Bayer Crop Science on a Sentinel Plot. In this trial are non-Bt, TwinLink, and TwinLink Plus plots. We are counting 50 plants in each plot and recording fruit damage and surviving worms. I am not sure what details or how much information BCS wants me to share while the test is ongoing but for the sake of answering your questions today I am comfortable sharing this; This week the pressure increased over the previous month markedly. With the help of a healthy predator population trimming the surviving worms notably, both Bt types seem to be holding up pretty well so far in terms of both surviving worms and fruit damage. We do note some damage in these plots, but remember, worms must eat some Bt cotton to receive their ‘treatment.’ This seems to match what we are seeing in the field too. We will see what happens if/when the pressure stays high. These field must be scouted utilizing the same thresholds as non-Bt.

before migrating here, and now Dr. Ed Bynum is reporting a Bt field needing to be treated in the Texas panhandle. We have not seen any indication of that yet in our program and can state that Bt seems to be controlling BAW and loopers at an outstanding rate. For details about what we are seeing in our Bt trials this year, see the next section.



View from within a ‘lusher’ but still cut-out cotton canopy this week.

The next question is, "When we must treat, what can we use?"

On July 13 we shared the results from our pyrethroid survival study that shown for that population of bollworms, concentrated in eastern Swisher, northwestern Floyd, and northeastern Hale should only expect a 77-82% kill from pyrethroids. This weekend we were able to make our second run. The balance of Hale county was better represented in this second run. This run can be separated into two groups. The results from eastern Swisher, northwestern Floyd, and northeastern Hale were almost identical to the first. We should only expect about 81.2% control from pyrethroids for bollworms in these areas. For western Swisher and Hale, the results indicate that we should expect a 92.86% control from a good treatment, but a 57.1% from a skimpy one. This means the heterogenous resistant bollworm population across the western areas are higher than to the east, but the east has a higher homogenous resistant population. In other words, to the east 18.8% of the worm population is dominantly resistant to pyrethroids and 81.2% are susceptible. To the west, 7.14% are dominantly resistant, 57.1% are susceptible, and somewhere between 7% and 43% are somewhat resistant on some level. Please note these numbers are preliminary and will be compared and analyzed with data from across the region and State.



Our 24-hour moth catch in Hale County for the trial last weekend.



One of our ET for headworm (CEW) seed milo fields this week.

## Sorghum

Our sorghum fields range in stage from VX to soft dough this week. Two of our seed milo fields, receiving as much irrigation as the system can allow during bloom and early dough, certainly qualified as 'lush' this week and fit my previous statement about being attractive to pests. Bollworms, or in this case headworms, average 1.2 small worms and 0.6 medium worms per head with noted moths 'humming' about the field even in daylight. With crop values calculated, this was certainly over ET and treatment was recommended. The sugarcane aphids in

in these fields were remarkably still hovering about ET with an epic battle ongoing with predators holding them about this level for the past few weeks. With the attention of predators now split between heads and leaf pests, we felt it best to treat for both. Trial work in our SCA research plots are at a peak, showing the aphid can and will still increase rapidly triggering treatments or serious damage if left untreated. In a few other of the sorghum fields in our care, they remain hard to find. We are still finding spider mites on lower leaves in sorghum. While colonies have grown we have not noted any major increase in colony distribution up the plant. FAW in our fields were fairly quiet while we have reports in the area of very heavy whorl feeding.

## Corn

Our two corn fields are moving into late dough and early dent this week. The end is nearing for these ‘normal corn window’ planted fields. Both have been treated successfully for mites with populations hard to find in empty colonies. All CEW have left the harder to feed upon ears with another generation looking for fresh hosts, there are few remaining FAW also. We did note what we believe was one western bean cutworm feeding site in southern Swisher. Without the worm, this is impossible to verify. The side feeding was typical of WBCW and fungus looked to has started near the wound. No other sign of heavy fungus have been noted, even lower on our ears. Any corn near tassel to dough stage right now will be a prime target for all ear pests with potential heavy damage potential, especially non-Bt fields.



Making a SCA treatment with the chemigation simulator in one of our plots this week. Preliminarily results still show chemigation works amazingly well.



SCA in one of the heavy spots in a seed milo field this week.



Potential old WBCW damage. Only hint of this pest or fungal issues we have found.



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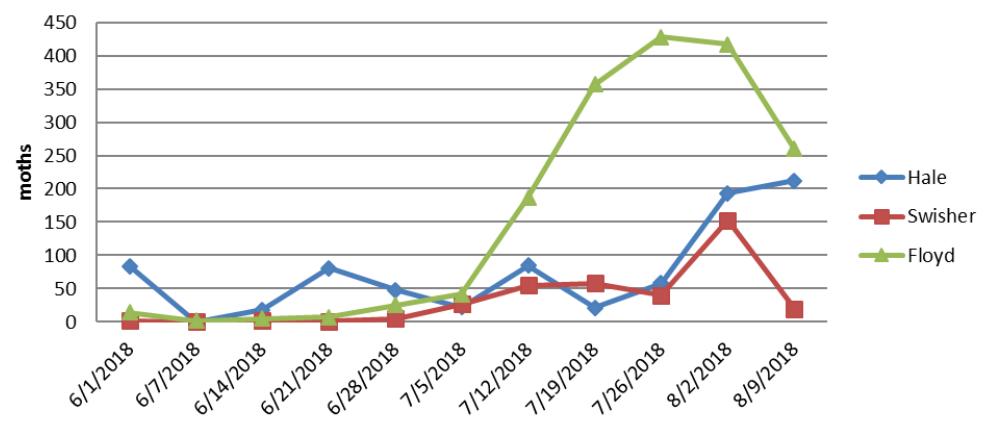
Check out our bi-weekly IPM update with the crew from All Ag, All Day—900 AM KFLP or 800 AM KDDD

## General Insect Note

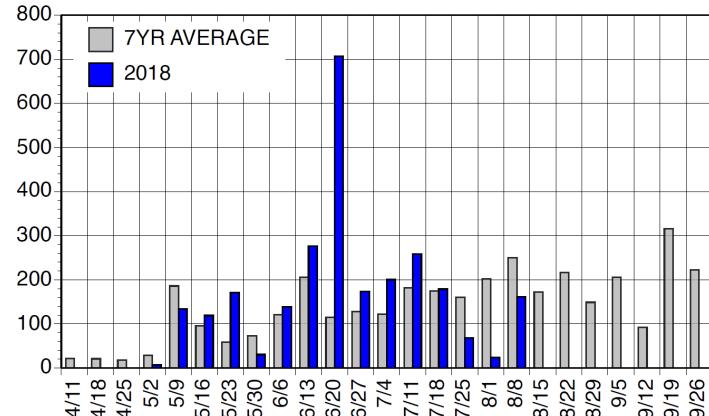
The small, triangle shaped moths that are so heavy in our cotton fields are garden webworms. We had them a few years ago much heavier. This photo is the type of damage we can expect from them, only being noted as feeding on pigweed. However, for your gardeners and our farmers market producers might want to keep a solid eye out for this potential pest. While unfamiliar, we might can guess as to why it is named as a 'garden webworm.'



## 2018 Adult Bollworm Moth Trap Catches



Average number of fall armyworm moths per trap per week, Lubbock, Texas, 2018. Averages are based on two traps.



Blayne Reed