

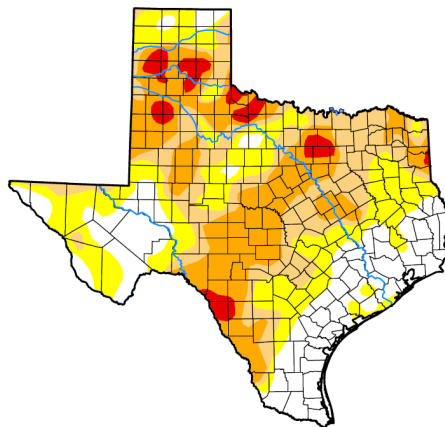
JULY 27, 2018

General Status

The humidity has been up over the past few days and the region has received a widespread rain event. I cannot say the rain was all we were hoping for or all we needed. According to what I can find quickly on <http://www.texaspivot.com/pivrain3> the rainfall this week ranged between 0.04 inches and 0.46 inches across Hale, Swisher, & Floyd. Rain remains in the short-term forecast. Any rain at this point is helpful but the sooner the better the help for most fields. Most fields for all major crops are at, near, or just coming off of peak water use. Cotton continues to move through stages quickly, particularly in areas of the most serious drought stress. Absolute cut-out for some unfortunate irrigated fields is already a reality while others are putting on great boll loads and moving right on track. Corn has finished pollination and is trying to fill grain in the heat while sorghum has been forced into showing some heartier traits under less than ideal conditions. Insect pests, beneficials, and

inconsequential are very active in areas have gotten more moisture for what ever reason. This gave us many issues to keep an eye out for, and even treat, this past week in our program fields. I expect this week to be little different, save perhaps a few more to treat if nothing or little changes.

U.S. Drought Monitor
Texas



July 24, 2018
 (Released Thursday, Jul. 26, 2018)
 Valid 8 a.m. EDT

Intensity:
 D0 Abnormally Dry
 D1 Moderate Drought
 D2 Severe Drought
 D3 Extreme Drought
 D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
 Chris Fenimore
 NCEI/NESDIS/NOAA



<http://droughtmonitor.unl.edu/>



Corn Start Date	Corn End Date
4/24/2018	9/24/2018
Corn Total Heat Units	2451.75
Cotton Start Date	Cotton End Date
5/16/2018	11/5/2018
Cotton Total Heat Units	1341.05
Calculate	

Cotton

The rainfall and heavy research plot work this week caused a shortened scouting week for our Plains Pest Management crew and we have not been able to get to all of our fields at the time of this writing. So far, our cotton fields have ranged in stage between our latest ½ grown square and absolute cut-out. Most fields fell between 7 NAWF and 4 NAWF with a lot of fields concentrating around 6 NAWF. Boll load and fruit set look pretty good in general, even in the driest areas, there is just not much growth on the most severely drought stressed plants to support much fruit as they reach or near absolute cut-out. Hopefully a good, soaking rain will come in time to at least hold as many bolls as possible in these spots. At least the insect activity in the drier fields is limited if any was noted at all this week. The ‘wetter’ areas are still surviving on the edge of a precipice but are still on track with good lint yield potential.

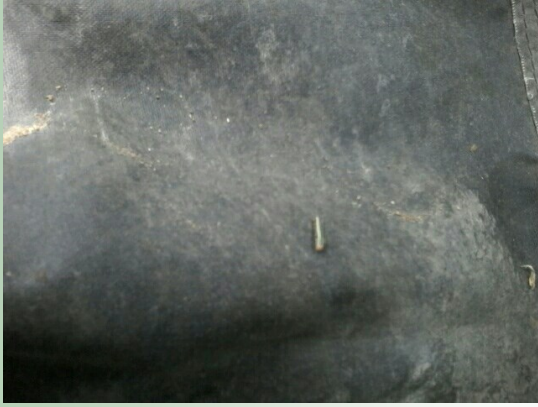
Bollworms are our largest pest of concern in areas still under a heavy ‘early’ bollworm moth flight and egg lay. These at least include northwest Floyd, eastern Swisher, and northeast Hale. The few corn and sorghum fields in the area are absorbing most of the egg lay, the high heat likely caused quite a few eggs to be sterile, and a remarkable predator population is dropping this potential bollworm larva in cotton by another 2/3 (my best scientifically aided guesstimate). Even with these helpful factors, we still had one non-Bt field in northwestern Floyd that required treatment for economic bollworms. In this field, we had 9,999 medium worms, 11,553 small worms, and 14,875 eggs per acre, well over the 8-10,000 bollworm per acre economic trigger. Most other fields held less than 10,000 eggs per acre and less than 5,000 worms per acre, if any were found. Bollworms were hard to find outside of the ‘trouble’ area. When we did find worms this week our small worms in particular were attacking smaller squares fairly high on the plant and most eggs were found in the upper part of the plant.



Comparative photo of ‘lusher’ cotton boll load on top and a drier field on bottom this week.

Cotton Bollworm pertinent research trials...

We are working with BCS and an area independent crop consultant on a Sentinel Plot this year. In this trial each week, we are counting bollworm larva and damage on a non-Bt variety plot, a TwinLink variety plot, and a TwinLink Plus variety plot. These plots are on the edge of the mentioned early bollworm trouble area, but none have reached an economic level of worm issues aided



An individual bollworm found in a eastern Swisher field this week.

heavily by the helpful factors mentioned earlier trimming the resulting larva population. Still, under these naturally aided conditions, all Bt traits being tested seem to be holding up very well. **This week we had 4% of the non-Bt plot infested with bollworms while the both Bt plots had none.** Still, we should be scouting all cotton fields this season regardless of Bt trait. While still getting benefit from these traits on several pest species, there were issues with bollworms this season and last season farther south, where these bollworms are likely migrating from.

Two weeks ago, we shared results from our pyrethroid resistance trial that indicated that we might only expect 77-82% control from pyrethroid applications to this worm population. We have the resources to make a second run this next week to gather additional data if the moth flight continues to offer 'subjects of concern' and plan on a third run more during a 'typical' moth flight in mid-August.

We currently do not have a replicated product efficacy trial for bollworms in cotton and might not have time and resources to get one together with other commitments this year. We may be able to aid and help establish one in partnership with Dr. Suhas Vyavhare, district cotton entomologist, if an appropriate field can be found. Please give us a call if you have one under very heavy worm pressure available and are willing to allow us to set one up in a small por-



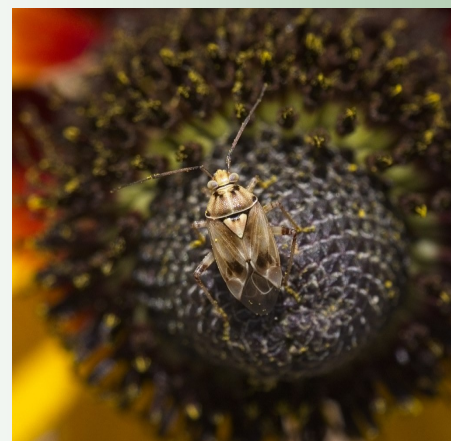
PPM Floyd bollworm moth trap with 428 worms caught in 7 days this week.

tion of the field. We do have an ongoing product efficacy trial in non-Bt corn in Lubbock with Dr. Pat Porter, district non-cotton entomologist, and are likely to start a connected trial in Hale soon. The results of that trial in corn is more targeted to fall armyworm but efficacy on all found species of worms in the ear are counted. The plots were treated at green silk stage with a vertical boom that applies directly to the ear and surrounding area to eliminate any coverage issue inside the canopy of corn and target the larva before they enter the ear and become untouchable by treatments. This should have been the absolute best option for each

absolute best option for each treatment to eliminate the usual FAW 'lump' infestation and evaluate the absolute efficacy of each product. The FAW infestation has instead been massive and ongoing for an extended period of time, much more like bollworms in corn is normally. The results I can share at this time are this, the untreated plots are experiencing 3.775 medium and large larvae per ear. The best treatment is running 2 medium and large larvae per ear. This is an unacceptable level of control and a direct result of ridiculous, constant, and infesting pest pressure instead of an expected 'lump attack.' I am not predicting it, but an extended and heavy infestation of bollworm (and maybe FAW) is possible in cotton if the current flight does not ease and spreads across the area to our lush cotton. Bottom line-if we are forced to treat bollworms in cotton, we will need to watch for possible retreatment.

Other cotton pest activity...

Our other pests in cotton this week were not nearly as concerning. Lygus did increase but were still only found in about 16.7% of our fields and usually at less than 1 Lygus per 12 row feet and well below ET. Fleahoppers remain a concern in pre-blooming cotton but were still below ET in these few fields and were acting as good bollworm predators in blooming cotton. We are still finding a few stink bugs in our cotton, but still well below ET. We started picking up some spider mites in cotton across southern Hale on some moderately and heavily drought stressed cotton on the upper few leaves.



Lygus adult. Photo-Pat Porter.

Corn

Our corn ranged in stage from dough to early dent. Both fields were over ET for spider mites. On the Texas A&M AgriLife 0-10 mite damage rating in corn, with 3.5 being ET, both fell between 4 and 5. Both were recommended for treatment. In the high heat, mites continued to increase quickly with few mite specific predators helping in control. With the humidity up and rain chances in the forecast, getting some Neozygites fungus started to help in control is a hopeful outcome. Corn diseases are very light, with some smut starting to show. There is quite a bit of interest in treating for bollworms (CEW) this year,



Mites at ET in SW Hale Corn this week.

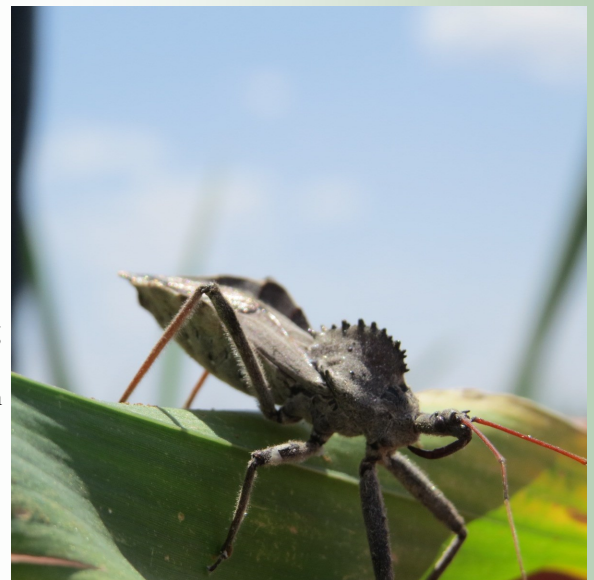


CEW in corn this week with typical ear tip damage.

particularly to the north. It is true that CEW have been behaving more harshly in corn to our south this year compared to 'normal.' I would reference our non-Bt corn ear worm product efficacy trial mentioned in detail in the cotton section. With high pressure over long periods of time, keeping an ear absolutely clean might not be feasible or economically possible. If CEW cannot be kept out of the ear with a green silk treatment, they likely cannot be economically controlled. However, FAW and western bean cutworms (if you have them) should be a focused concern for ear control.

Sorghum

Our program sorghum ranged in stage from V10 to soft dough. Sugarcane aphids are our primary pest of concern, but none were at ET yet. Our highest field came in at 17.6% infested plants with aphid colonies of 50 or more with threshold being 30% infestation at dough with aphid colonies of 50 or more. We will likely look at this field earlier in our scouting schedule to encompass the recommended twice weekly scouting for pre-ET but infested SCA sorghum fields. The SCA increase remains slower than previous seasons, but steady and we will need to watch all infested fields closely. Pre-flag fields were still likely getting some benefit from seed treatments and other factors as SCA were much harder to find there with less than a 5% infestation rate and colonies of less than 10 aphids. We were still finding sorghum midge, but still only on edge plants with only 2% blooming heads infested. Our highest headworm count came in this week at 0.36 worms per head with 60% of these worms being FAW and the remaining 40% being CEW. Worm predators seem to be following the egg lay in sorghum and taking a tremendous amount of headworms from causing serious issues yet, in addition to helping slow SCA numbers. Spider mites continue to be found, now in all of our sorghum fields, but still below ET coming in between 1 and 2 on the 0-10 damage rating scale.



Another assassin or 'wheel' bug that make great worm predators, this time in our sorghum test plots this week.



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<http://hale.agrilife.org>

For quicker pest alerts-

Plains Pest

Bugoshere:

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

Pest Patrol Hotline,
registration at:

www.syngentapestpatrol.com

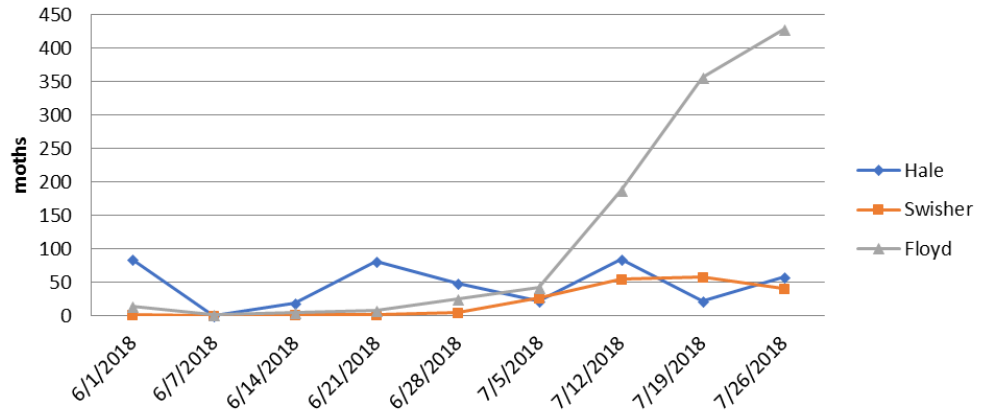
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We're on the air...

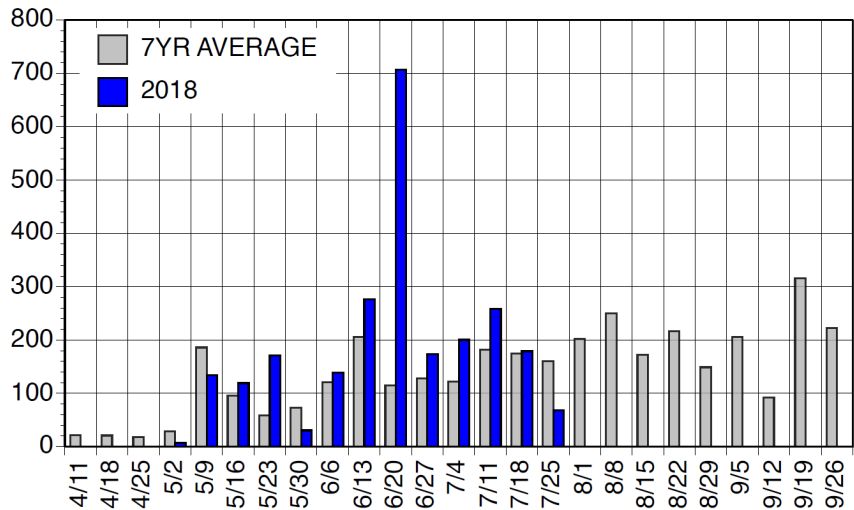
"All Ag, All Day"

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

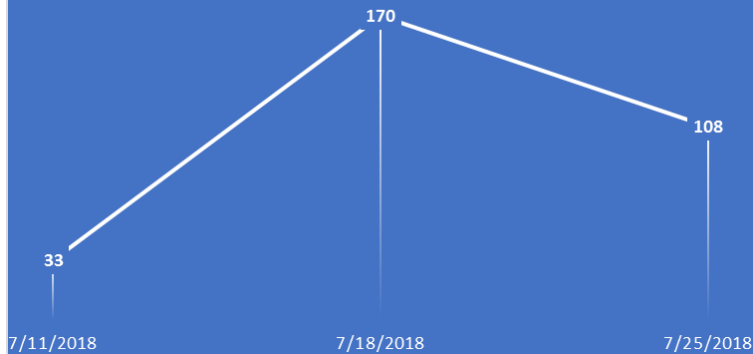
2018 Adult Bollworm Moth Trap Catches



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



2018 HALE FAW TRAP CATCHES



With the FAW becoming a pest of heavy focus, we began trapping for them in Hale on July 11, 2018 too.

Blayne Reed