Texas A&M AgriLife Extension

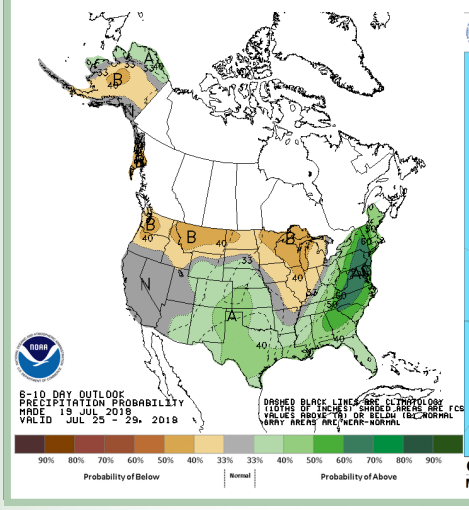
Plains Pest Management News

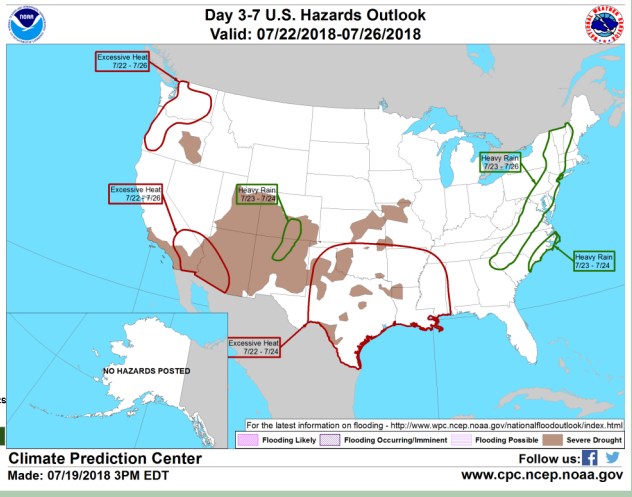
JULY 20, 2018

General Status

The persistent drought conditions are taking their toll. Most dryland fields are already few and far between but the areas within Hale, Swisher, and Floyd that have received the least amount of rainfall this season, in some cases less than 3-inches since October, are looking at serious tough times for irrigated without help soon. By soon, I mean rain in a matter of days. Our scouting program in these areas are already finding cotton fields at or near 5 NAWF (nodes above white flower) with plants only 15-inches tall or less and tired irrigations systems having run more by mid-July than all of 2017. Without help from substantial rainfall, these fields might be looking at reaching absolute cut-out, 3.5 NAWF, before August, any additional yield potential capped at that point. Pests, and insects in general, at least recognize the situation and are very hard to find much moving in fields in this situation. Our few corn fields are faring some better in the heat, likely having better irrigation capacities or a bit more moisture but are showing some slight drought stress. In this situation spider mites typically flourish. This week is no exception with mites increasing in our program corn and sorghum fields rapidly and reports of mites in corn already being treated in various sections of the region over the past few weeks. In areas of the area that have gotten "more" rainfall cotton is advancing a bit better. These areas are still 'hand to mouth' with the moisture but have gotten 2 to 5-inches more moisture from the hand. Some are even calling for PGRs. Keeping a smaller more efficient plant might not be a bad idea with

Cumulative Heat Unit Calculator	
Corn Start Date	Corn End Date
4/24/2018	9/25/2018
Corn Total Heat Units	2207.00
Cotton Start Date	Cotton End Date
5/16/2018	11/5/2018
Cotton Total Heat Units	1166.30





the next few 100°F plus days but if applied to plants already experiencing drought conditions, PGRs do more harm than good. Insects do seem to know which fields have gotten those extra few inches of water. We have bollworm egg lay and fleahoppers that could be an issue for the late fields to watch, sugarcane aphids building 'slowly' in sorghum but we also have a tremendous amount of beneficial predators that give us hope of holding some of these pests in check while we battle drought and persistent weeds.

Comparison of cotton terminals this week.. Top plant has received about 5" more rain than bottom plant in '18.

Cotton

This week our program cotton ranged in stage from a late matchhead square stage to thirsty 4.8 NAWF. Most fields came in between 7.1 and 5.5 NAWF. Several fields that were still at 6.5 NAWF and above did receive PGR recommendations if our plant measurements indicated a vegetative growth pattern. Even so cotton is developing at breakneck speed. The majority of fields are on track to reach 5 NAWF within the next 4-10 days. This is a milestone of cotton development we usually do not reach, or target to reach, before August 4th. This 5 NAWF milestone is important as it indicates peak-bloom, peak-water use, it is a point where cotton will no longer conduct more vegetative growth than reproductive and would never return from with the next stop being absolute cut-out at 3.5 NAWF when the window for boll production slams shut. We need a good rain in a matter of days or many area fields will have this window slammed shut way too early.

A thirsty southwestern Hale field this week getting as much irrigation as possible.

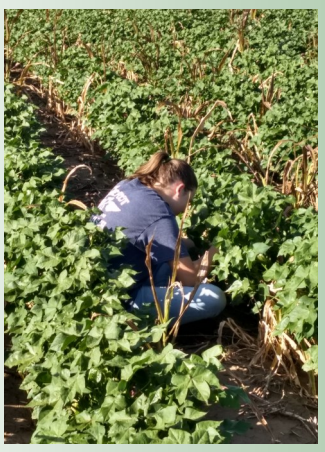
In the driest fields, there is very little insect activity. In the balance of fields, there is a plethora of activity from pest, inconsequential, and beneficial alike. This week, we had no pests in our program with any economic pest problems. Fleahoppers, of both green and black, are incredibly heavy in most blooming fields but are not causing any notable damage. In cotton that can be measured in NAWF, fleahoppers actually act as beneficials feeding on easily accessed pollen, small bollworms, and bollworm eggs. Fruit drop in most fields remains light and boll set looks

good so far with fleahopper problem fields recovering well from damage earlier in the season. Younger fields not yet blooming are at serious risk for fleahopper damage but populations in those fields in our program do not have any serious populations. Lygus remain largely absent while a few stink bugs of various species are coming up in about 1/3 of our fields. ET for fleahoppers in pre-bloom cotton should be 1 fleahopper / 1.5 row feet, for Lygus at 1 Lygus / 2.5 row feet, both with associated fruit loss. Stink bug thresholds are based upon number damaged bolls / 100 bolls with ET hovering around 15%. Generally, we believe stink bugs can cause square drop also but there have been few opportunities to work on this pest on the High Plains. I would assume a reasonable ET on a per row foot basis would be about 1 stink bug / 4 row feet.

A closeup of a central Swisher field's fruit load this week.

A large bollworm moth flight continues in the eastern sections of Hale, Swisher, and Floyd. Luckily it appears some predators 'blew' with the bollworms this year giving us a chance at avoiding some potential treatments that I fear might be building. Corn and sorghum are absorbing quite a bit of the resulting egg lay but the reduced amount of grain being grown this summer leaves ample room for egg lay in cotton. In lusher cotton fields in eastern Swisher, northeastern Hale, and northwestern Floyd, finding between 2,000 and 24,000 bollworm eggs per acre seems a given. The very good to excellent beneficial populations are so far holding the resulting bollworms down to between 480 to 2,274 small bollworms per acre with ET remaining at 8,000 to 10,000 worms per acre, or 6% harvestable fruit damaged by bollworms. We need to keep an eye on all cotton fields for worms this year.

An assassin bug, specifically a wheel bug. These are fairly rare in West Texas but is an awesome predator of bollworms that we love to see. This one was one of three we have seen so far this year. It was noted in corn while we worked a spider mite trial.



Christina, one of our field scouts this year, searches for bollworms in a BCS/PPM *Bt* efficacy trial.

Corn

Or corn fields are in late blister and early dough this week. With the return of absolute heat, the spider mites are likely the biggest pest threat to corn at this time. In both our fields, mite populations increased rapidly on the official 0-10 damage rating scale with one rollercoasting back in at 3.2 after dropping last week and up to a 3.7. The ET on the Texas A&M AgriLife mite damage scale is 3.5 but, in this area, we can typically act at a 4 as we have not had to spray for a primary pest and because the mites usually hit locally a bit later in the season than the Dalhart or Muleshoe areas. In no way should we wait too long to treat mites in corn. Rescue treatments for mites are rarely successful or economic. Mites must be corralled early. If the heat continues and no mite specific predator move into these fields quickly, we will be forced into treating these fields soon.

Active bollworm (corn earworm) on early dough ear with a lower leaf held and posed nearby with heavy with Banks grass

Corn earworms, or bollworms if you prefer, are easy to find in corn and should be for the next several weeks. These should not be economic as eventually, only one cannibalistic worm will remain and only with feeding from the tip down a relatively short distance. Fall armyworms (FAW) and perhaps the western bean cutworm (locally) present a far more economic problem for ear feeding. The FAW can move to the mid-ear area upon occasion while the western bean cutworm will start mid-ear. This mid-ear damage has proven to be economic both from direct feeding and from disease entry. We have not found any western bean cutworms and FAW in corn remains elusive and among the CEW at the tip.

This alert might be a bit late. Reports about economic corn rootworm damage to roots and interference with pollination have been fairly common this year. As our program has no corn on corn fields, this has not been an issue for our fields. In the even fewer fields that are corn on corn is where issues have been. This week the adult rootworm beetles of both western and southwestern species are fairly abundant in the area, feeding on pollen and looking for additional corn to infest. If you have a later corn field that has not pollenated yet, this might be a situation you need to scout for.

Sorghum

Our sorghum ranged in stage from V8 to a very scattered early bloom stage due to emergence issues after planting. Sorghum midge remain present in our fields along edges but still only infesting less than 5% of blooming heads. Fields in bloom should be checked daily for midge until bloom stage concludes. FAW and bollworms are pretty easy to find in sorghum this week with

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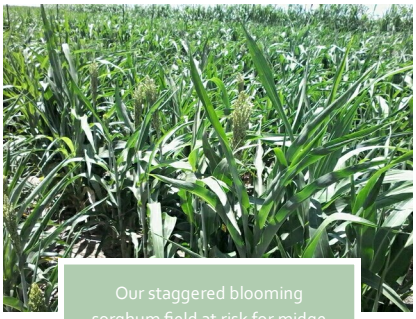
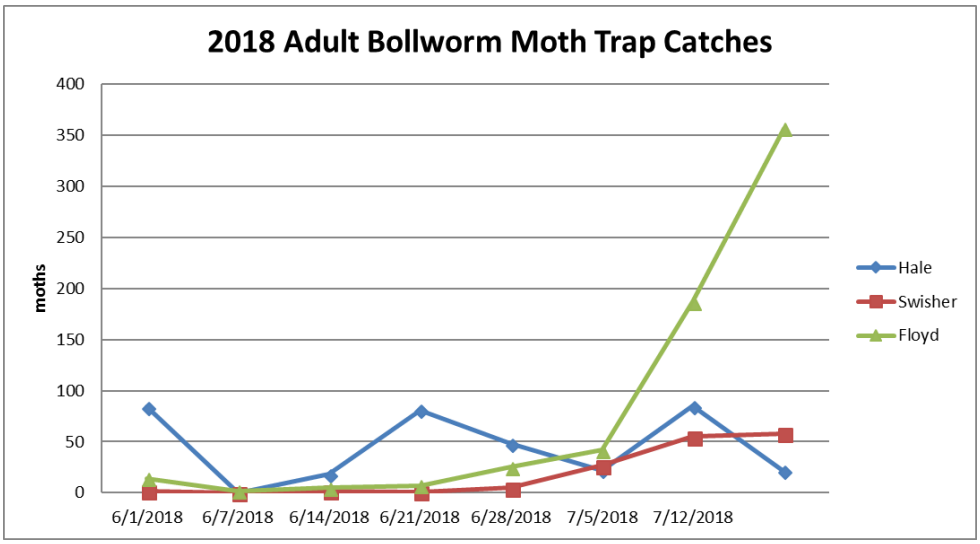
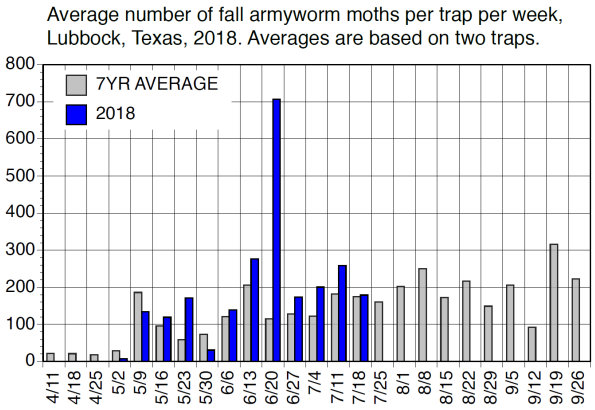
FAW being more prominent. Thankfully, these FAW still seemed more attracted to the whorl stage plants where they are of limited economic concern. We found no worms in heads so far, but this is an issue we expect at any day or once heads become more common. Sugarcane aphids increased this week slowly but steadily in our fields. Counting our research plot field and other researchers plots we are scouting too, 80% of our fields have SCA at some level. All of the SCA colonies we have found are still below 50 per leaf. We do have reports of some fields already reaching ET and are being treated. We will watch the situation closely. We are also finding Banks grass mites in sorghum, but no field registered above a 1.5 on our 0-10 mite damage rating scale.



Our staggered blooming sorghum field at risk for midge





Blayne Reed