Texas A&M AgriLife Extension

# Plains Pest Management News

August 4, 2022

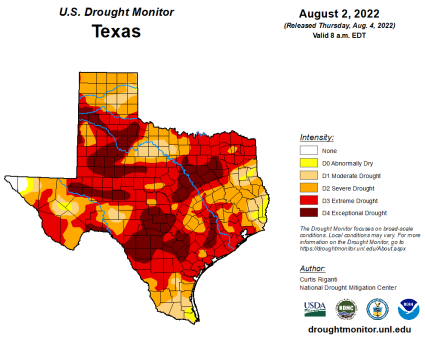
## General Status

Weather and drought remain our greatest issues this week yet again as we plow through crunch time and peak water use with not a drop of moisture to spare. We did get a break in temperatures for a day or two while many of our neighbors to the north received variable but generally heavy moisture. Very few of our program acres received measurable moisture from that event this last week, but the few that did, if they receive more than 0.2-inches they seem to have quite a bit of severely damaging hail with the rainfall, causing moderate to severe fruit loss and damage adding more fields to the abandoned number of fields albeit for a fresh reason. Otherwise irrigation systems keep pumping at maximum, still losing ground as we keep looking for a better forecast and true relief.

On the pest front, by the time the week ended there seemed to be limited pest activity although it did not seem limited at the time. All three of the major crops in our scouting program had at least one field that was borderline threshold for at least one pest and active with multiple pests. From bollworms, to Lygus, to spider mites, and aphids there are a lot of active pests out there right now that have not added up to treatments for us this week. We will see how long this 'quiet' time lasts.

Top: 3/4 bolls lost or severely damaged from hail. Bottom: small plant / good fruit set for size

Same cotton variety, same grower, different water



# Cotton

Our PPM scouting program cotton ranged in stage from 9/10 grown square stage through absolute cut-out. Most of our fields came in between 3.5 and 5 nodes above white flower (NAWF) and solidly inside peak water use with a handful of higher irrigation capacity fields ranging between 5 and 7 NAWF but a full 1/4 having already reached absolute cut-out of 3.5 or less. At this absolute cut-out stage, the plants shut down and stop all vegetative growth. This includes fruiting site production. For these fields, regrowth is certainly possible if too much moisture is received in late summer or fall but this growth has no chance of making harvestable fruit and will only make harvest and successful harvest aid treatments difficult. Once the last white flower is set on these fields, irrigation needs will drop to a boll fill only requirement with any moisture above this level being a waste. I expect over 70% of our surviving irrigated fields to reach this stage as early as next week.

Field that reached a pre-mature cut-out this week.

John Thobe, EA-IPM Parmer, Bailey, and Castro helping work a Cotton bollworm Bt Sentinel plot this week.

In cotton several pest species have been active as a whole. Luckily this activity has been restricted to various pockets that have not overlapped nor been economic for our fields yet. The most serious of these pests this week remains Lygus with a handful of fields still hovering just below economic levels of 1 Lygus per 4.5-6 row feet and limited fruit loss. With these levels, I would expect some area fields have needed or will need treatment. The vast majority of fields remain holding Lygus populations of less than 1 Lygus per 18 row feet with solid field scouting that includes both pest monitoring and fruit retention analysis as the only way to tell which situation any field is in.

Lygus adult—Photo by Dr. Pat Porter

Bollworms continue to make waves in the area. We again noted an uptick in egg lay in lusher fields not near corn that remains light by historical standards that could become a big concern soon. So far, mortality from both an increasing beneficial population and high heat have kept the actual bollworm numbers quite low with our highest worm population being less than 500 worms per acre and hardly detectable on the percent harvestable fruit damage threshold standard. With corn drying down and moth numbers on another uptick, this could change rapidly with all Bt technologies being at risk for economic bollworm damage. If we do see a massive increase in egg lay this month, please remember we do not spray for eggs on the Texas High Plains due to the likelihood of high worm mortality here. This makes weekly scouting for small worms a must this month for any Bt technology. The worms relly need to prove they are enough of a threat to warrant an investment in a control treatment without letting them damage too much fruit as to let them rob profitability or even get so late as to make our treatments a wasted revenge shot. Fields will only be passed economic worm damage when no or very few square or even flowers remain in the field and large bolls are all that remain.

2nd instar bollworm on dime sized boll.

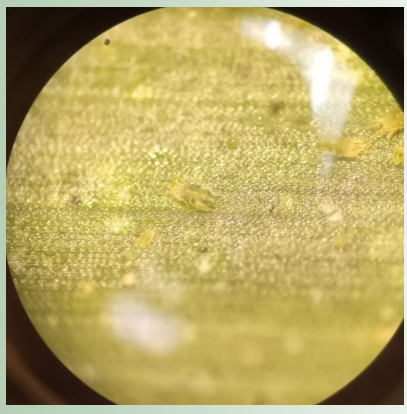
This week we also found a few spider mites in some of our drier fields. These populations were of the two-spotted variety (not red) and only found in establishing colonies on some of the uppermost leaves in more drought stressed but still developing fields. While this is much more common farther south and more consistent across the southern region of our area, rarely is it economic for Hale and Swisher. This far north there are usually some grain crops nearby that the mites would prefer and it only takes a few dewy mornings and a few cool nights to slow the mites down in cotton so that beneficials and disease mop up the wayward mites. Mites in cotton here does warrant close monitoring though, especially if the drought continues with the heat staying through the night hours and no moisture to form dew is found. These mites do have the potential to rob quite a bit of boll fill and even cause premature leaf drop that could affect fiber quality in a big way if left unchecked. Here is a link to our Managing Cotton Insects in Texas management guide: https://agrilifecdn.tamu.edu/texaslocalproduce-2/files/2018/07/Managing-Cotton-Insects-in-Texas.pdf

| Table 8. Spider mite action threshold |
| --- |
| Treat when 40% or more of the plants show noticeable leaf damage and the mite population is growing. |
| Spot treat problem areas and field edges when infestations are relegated to small areas. Stop sampling and treating when NAWF = 5 + 650-750 DD60s. |

Corn and Sorghum

Our corn reached early dent stage this week but has been greatly hurried in dry down by the drought situation. Much of the plant's lower leaves are prematurely desiccating, which is forcing an otherwise non-economic Banks grass mite issue higher up the plant, which is accelerating the situation even farther. This is a situation where a good rain might prompt a mite treatment, but otherwise I am not sure treatment without additional moisture to prevent plant desiccation will give enough returns. Despite the drier situations, we are noting a sharply increasing mite specific predator population to possibly help moderate the mite migration and damage moving up the struggling plant. We do have reports of similar beneficial populations aiding in mite control and even preventing treatment in a few cases this week from our area entomologists.

Six-spotted thrips are one of the key mite predators helping to subvert the mite populations in area corn.



Banks grass mites under magnification.

Our older sorghum is in early dough stage and received treatment for the spider mites last week. We noted no increase in the tiny sugarcane aphid population in this field this week and found no headworms on the grain. There are quite a few pests we should be on the lookout for over the next month in our area sorghum. Here is a link to a how to scout video we made a few years ago to help you out: https://www.youtube.com/watch?v=Exki0Veiu9Y

Our younger sorghum, currently at V6-8 seems at risk again to another round of fall armyworms attacking in the whorl. This time we are seeing over 75% infestation rate, but are still below 1% foliage loss. We will watch these worms closely as there is potential for them to cause not just economic damage (about 30% foliage loss) but if the population increases to a point where not all will fit into whorls and move to the open leaves with multiple worms per leaf, they could skeletonize a field quickly.

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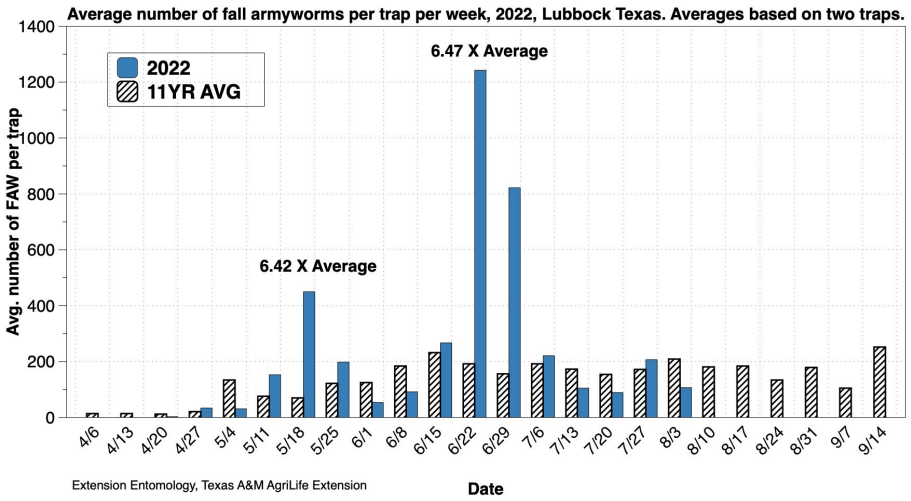


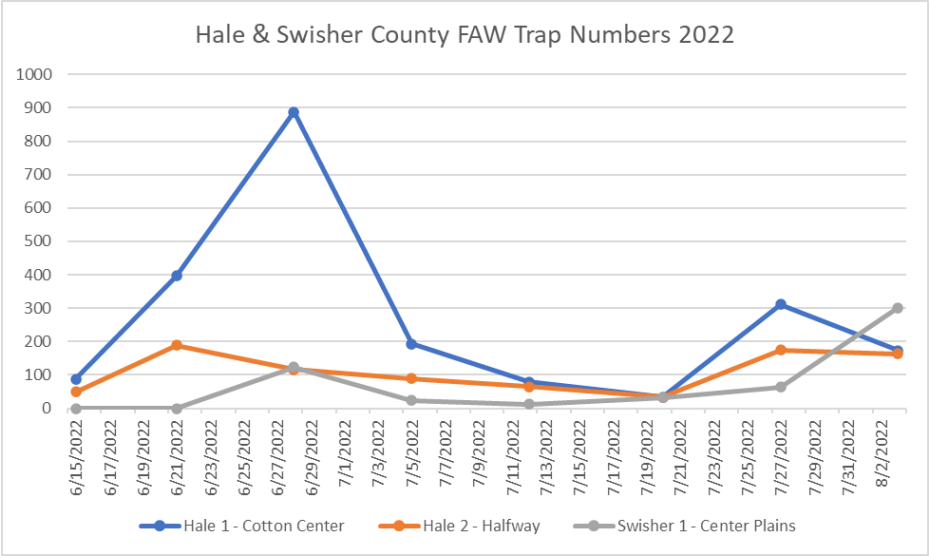


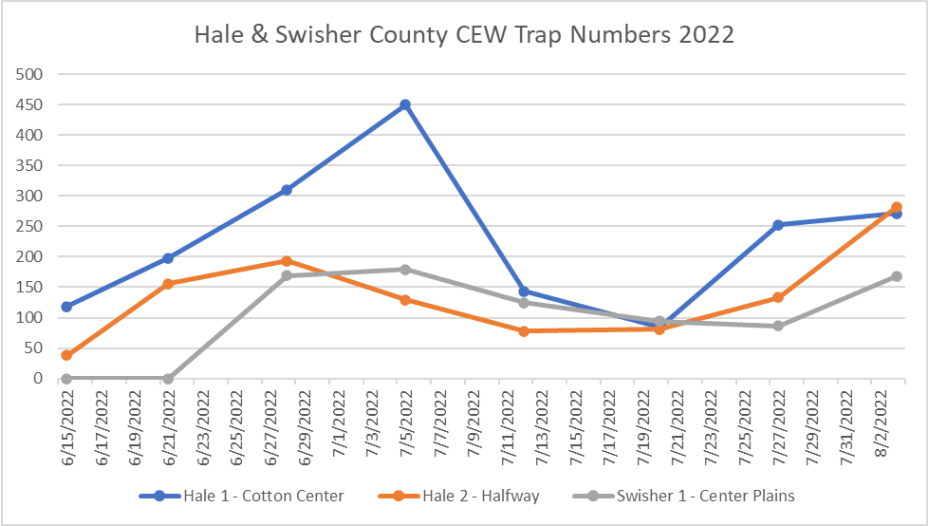


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