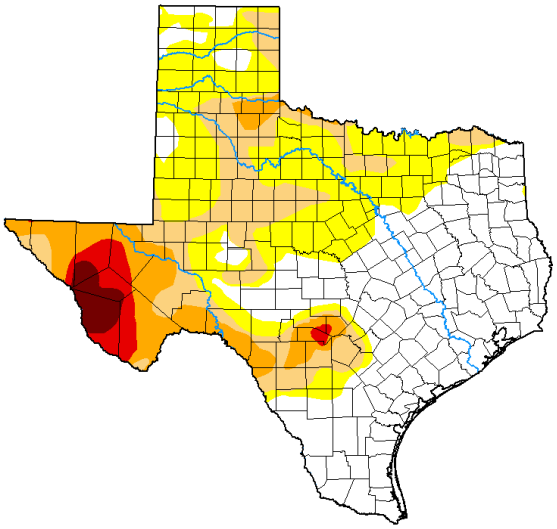
TEXAS A&M AGRILIFE EXTENSION

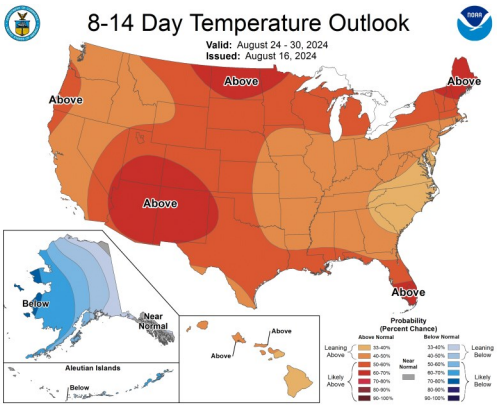
Plains Pest Management News

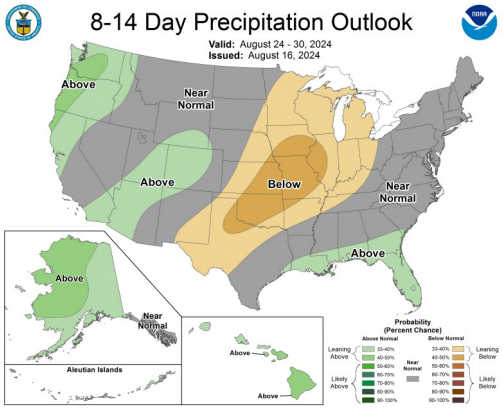
AUGUST 16, 2024

General Status

There remains substantial insect activity from just about all the insects found in our Texas Insect Management Guides in most of our production fields again this week, but there were only a rare few that required control. Despite some additional scattered rain showers, drought remains our largest threat. Of those acres blessed enough to receive rainfall this week, few were gifted more than a few tenths of moisture. All of this as the heart of our yield is being set and finalized. With continued heat and limited moisture in the forecast and irrigation systems overstressed for several seasons in a row, our traps indicate that even more pests could be on their way to the area. Despite all the environmental adversity, fields are holding all the yield they can for the respective moisture available. For fields without strong irrigation wells or missing substantial rainfall, the window for fruit set is shutting hard with disappointing results. For stronger irrigation or beneficial rainfall acres, results might be surprisingly good for the situation. Fields could be at risk of pests throughout August, if the pressure actually arrives.







Cotton

1st open boll on a cut-out field that held all it could.

Our Plains Pest Management scouting program cotton ranged in stage from 5 nodes above white flower (NAWF) through 1st open boll. Most fields were resting below absolute cut-out below 3.5 NAWF and still setting the last of their top crop. Fields in this stage are very sensitive to moisture and 'water' efficient, in a matter of speaking. This is because after physiological cut-out at 5 NAWF, and certainly after absolute cut-out at 3.5 NAWF, there is little to no vegetative growth. So, all available moisture will go into setting new bolls as they bloom or filling and developing existing bolls. This water need can be high, but it is efficient. If the fields are short on moisture at this time, fruit drop can be catastrophic as the cotton plants, try to save themselves by dropping the moisture needy fruit. If fields have adequate moisture in this window, fruit set will be high and the plant highly efficient with all moisture going to fruit set and development. We have cotton fields all over the backside of this 'crunch time' window of production.

For the fields that experienced a hard cut-out and have no squares left to set, we need to be careful. Once all fruit has bloomed and is either dropped or set into boll development, too much moisture will cause the plant to restart vegetative growth, loosely referred to as regrowth. The restarting of the plant's vegetative growth is almost entirely a waste of moisture and resources and can be problematic during harvest aid and harvest season. With the majority of our fields in the last stages of boll setting early this year, each drop the producers places on their cotton acres needs to be strategic, either to set fruit or finish filling bolls without overwatering. In the driest of our fields, we will likely need to terminate irrigations earlier than usual without hurting the crop. The boll count results of many of these fields is disappointing this year, but they are not really 'bad'. These drier field's plants really did hold all they could for the moisture available in the heat.

Lush field at 5 NAWF that needs to reach 3.5 NAWF soon.

We do have a few fields on the opposite situation. There are green and lush fields, with a heavy fruit load and still setting mid and upper fruit. We need to be strategic in irrigation for these fields also. The average last bloom setting date for the Plainview area is August 24. Giving the plant too much water and not allowing it to reach absolute cut-out by that date can cause waste in the form of rankness.

We remain focused on Lygus and bollworm scouting this week and should be focused there again next week. Both pests were a touch more numerous than last week, increasing for the second week in a row. Only one cotton field reached economic levels and had to be treated this week and it was for Lygus. The treated field held 1 Lygus per 2.05 row feet with the pest causing the drop of a substantial amount of harvestable fruit that the plant would have otherwise had the moisture available to hold on to. A few other field neared this level of Lygus, but the majority of fruit loss was from cut-out stress and not Lygus feeding.

A Lygus captured in a data set from

Image of fruit loss from the treated field. It was estimated that >50% of this drop was from recent Lygus damage and not from cut-out.

Not so long-ago bollworms were our number one and just about our only primary pest in mature cotton. While other pests have moved in, they do not have the punch the old bollworms did, at least not since multiple traits of Bt have been available. The potential of the bollworm remains, especially since resistance to the older Bt traits have been confirmed. Periodically, bollworms have returned in recent memory in heavy numbers, but these were years when the moth seemed to have survived management in other areas and migrated in, similarly to the old days. Back when bollworms were our main pest, the historical weekly moth trapping data had numbers over 400 in the worm's peak flights. Here are two things we know as it pertains to bollworms this year. They were heavy down State and our weekly moth trap data in Hale county this week held 438 moths after being hardly detectable earlier in the season.

Small bollworm and predator from this week.

So, will the bollworm be an issue this year? We still do not know. We are finding a few more eggs and worms in non-Bt fields this week, but next week, after the full moon, will likely be the heavy worm egglay. Many of our fields may have developed passed bollworm damage and there are alternate, more preferred hosts available to the moths. Late corn or sorghum will be their main target, but moths will readily settle for cotton if it is available. Also, we still have a decent beneficial population in field that could

Bollworm and Tobacco Budworm Action Threshold Based on Boll Damage	
Cotton stage	Action threshold (both Bt and non-Bt cotton)
Before bloom	≥ 8 worms (≥1/4 inch) per 100 plants or when populations threaten to reduce square retention below 80 percent
After boll formation	≥ 6% damaged squares and/or bolls and worms are present

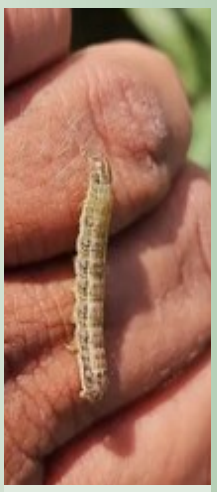
Fields that have accumulated 350 DD60s beyond 5 NAWF are no longer susceptible to first or second instar bollworm/tobacco budworm larvae. Action threshold should be adjusted according to yield potential and production system (dryland vs irrigated).

could help out. One thing is certain, we probably need to be on alert and scout for bollworms this year. Due to the resistant issue, we should be scouting all Bt types, but we should also never, on the Texas High Plains, spray based on egglay alone. Natural egg and small larvae mortality on the High Plains is typically high compared to other regions.

We are also still finding light but spreading population pockets of whiteflies, cotton aphids, and spidermites. None were near threshold, but do represent secondary pests ready to flare if nonselective pesticides are used to control primary pests and beneficials are removed. This week, these secondary pests did seem to spread to more fields, but are also providing food to keep the beneficials in-field, hopefully ready to receive the potential primary pests, if they do arrive. We are still finding stink bugs of various species but not enough to trigger boll dissection methods to determine exact economic damage.

Corn, Sorghum, and Millet

Drought is our biggest problem in these crops also. Our older corn is in dent stage, with some acres prematurely drying in the heat, others flourishing and/or developing well-enough. The same can be said for our sorghum fields. Banks grass mites can be found in both crops. In corn the mites did slightly increase again, but good beneficial populations are holding to slowing them greatly. In sorghum the mites only progressed up the plants with drought desiccation of leaves and are seriously exposed to predators. Most of the predators in our sorghum are focused on sorghum aphids, who are increasing in some fields and decreasing in others. With our older sorghum moving to late dough and showing quite a bit of color, the proven threshold is to protect the upper half of the plant. In our fields where the aphids have increased with sizable colonies on about 45% of the plants, they have not seriously moved to the upper portion of the plants yet. We are still not seeing any serious headworm populations in our sorghum but stink bugs and a few Lygus are a common find at sub economic levels so far.



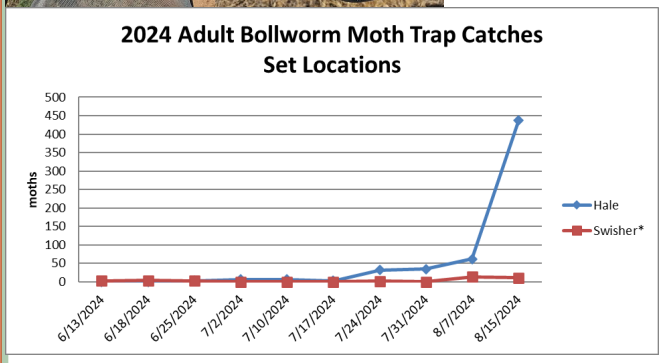
FAW from a SW Hale millet whorl this week.

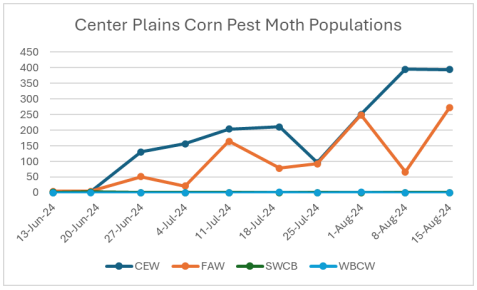
Our trap data indicate that fall armyworms are moving again but we are finding few in the field this week. Last week they were almost exclusively targeting whorl stage grain crops, which included millet, non-Bt corn, and sorghum. We found very few in our whorl stage millet this week, but the leftover damage was notable, but also not near economic levels. No major pests were found in our V 10-11 stage late corn.

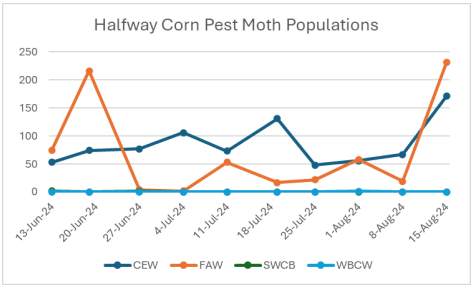
Texas A&M AgriLife Extension Service / Texas Pest Management Association

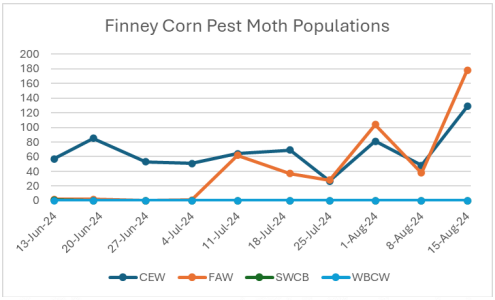
225 Broadway, Suite 6
Plainview, TX 79072
Tel: 806.291.5267
Fax: 806.291.5266
E-mail: Blayne.Reed@ag.tamu.edu

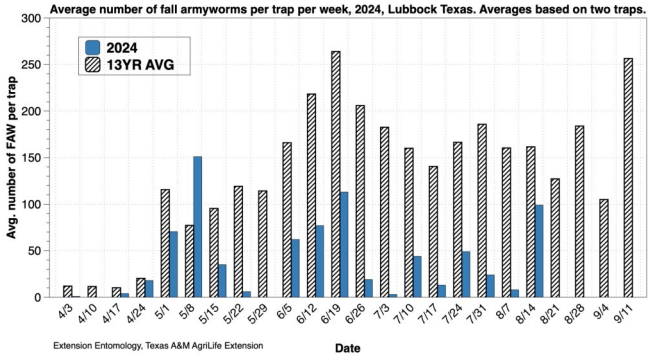
Our Swisher bollworm moth trap continues to have issues with grasshoppers ruining our moth numbers for the entire season. Despite a healthy number of grasshoppers eating most of the moths, enough moths entered to indicate at least 11 moths, probably from the night before. Hale was old days high and our Texas Corn Producers traps, especially our Swisher location near Center Plains, is very high for the second week in a row.











Blayne Reed

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