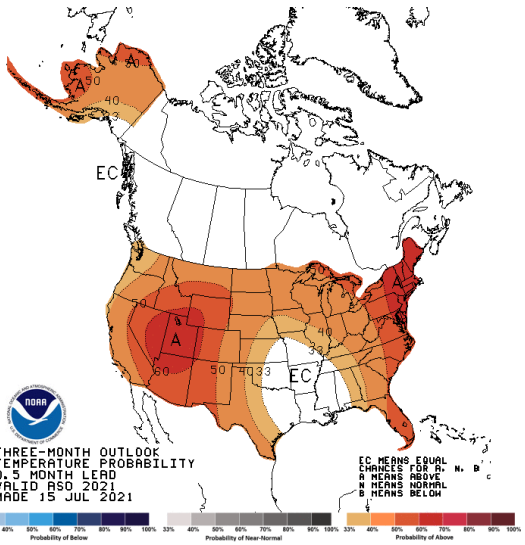
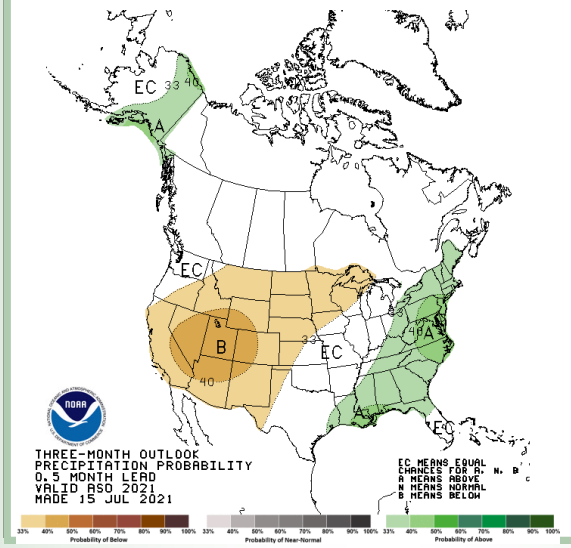
Plains Pest Management News

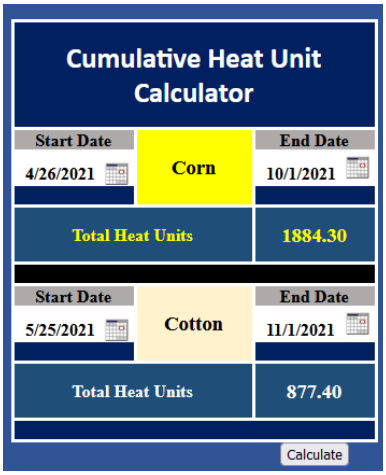
JULY 23. 2021

General Status

It has been a hectic week for crop and pest management again. Fleahoppers remain a threat for most fields, sugarcane aphids have arrived in the area, and fall armyworm numbers are on the increase. Those are just the highlights. Most crop fields remain a bit late with some cooler night temperatures recently not helping issues while many fertilizer applications are just now being made and the weeds are not giving any ground we do not wrestle away from them. We are heading into more serious moments for irrigation scheduling, plant growth regulator management, an increase in typical pest migration issues with important fruit development stages and pollination ongoing. There is plenty to be on the lookout for and management issues to handle.







Still a rare sight, fields are starting to bloom, most are within a week now.

Cotton

One of our later PPM cotton fields, this one from SW Swisher, is only at 2/3 grown square today. It might be

Our oldest PPM cotton fields can finally be measured in nodes above white flower (NAWF) while our youngest are coming in at 1/2 grown square. Our most advanced field came in at 7.04 NAWF with only about 15% are blooming at this time. As fields enter first bloom stage, they are starting somewhere between 8-9 NAWF with a few dryland exceptions still starting above 7. This is 10-14 days later than typical, but we are not our of a decent management range for finishing on time yet. With our average last effective bloom date of August 24th for the Plainview area, and a usual absolute cut-out date for good fields in the region being about August 10th, I see no need to panic yet. The crop might very well need some careful management with irrigation scheduling, nutrient management, fruit retention care, and plant growth regulator timeliness to prevent overshooting a typical fall. We might even some boll maturity management in the fall, but as long as we do not see a September killing freeze, I still think this cotton crop can be brought in in good shape.

Old fleahopper damage stopped once treated 2 weeks ago and % retention recovered to a better level on this N Hale cotton just entering 1st bloom.

Fleahoppers remain our largest concern to date. With the lateness of bloom initiation, fleahoppers are getting a bit more time in late July to make nuisances of themselves. As fields move into a consistent bloom stage, fleahoppers soon become a non-issue for cotton. Until then, non-blooming fields will remain at risk. As of today, we have had to recommend treatment for 75% or so of out program's cotton scouting acres over the past 3 weeks and I expect to find more next week. Yes, we can find plenty of fields where fleahoppers are not an issue, but the population continues to build over ET for multiple fields per week while fields already treated more than 20 days ago are still experiencing infestation pressure. For a few fields the number and type of predator beneficials have truly aided in control this year, in several cases they have averted ET altogether. The ET remains at 35% infested plants with associated fruit drop around 15-20% for this stage cotton.

Fleahopper adult and nymph.

In cotton we are starting to see a few more Lygus in our fields. Our highest population was still less than 1 Lygus per 12 row feet with most fields with most fields having none found. Stink bugs seem much more common this week, but nothing nearing ET. We are also starting bollworm scouting procedures in our blooming fields, mostly due to timing more than anything we are seeing in the field. Most worms in the area should be moving on our late or blister stage corn, but an early egg lay on our late but generally lush cotton is a possibility. Bollworms have proven to be resistant to older Bt traits in cotton and they often 'hide' under bloom tags so all cotton should be scouted, and treatment recommended if an ET population is reached, regardless of trait package.

Lygus are our next plant bug pest candidate.

With some management needs likely before us, it might be time to review just what plant growth regulators are and do. Here is a reprint from an article I first shown in our newsletter in 2015.

PGR use in Cotton…

First off, PGRs certainly do not increase lint yield in and of themselves. PGRs are synthetic plant hormones, period. Gibberellins are the most utilized or targeted plant hormone in most PGRs. Naturally occurring gibberelins regulate vegetative growth and promote cell division and expansion. With larger synthetic applications of PGRs, gibberelins are reduced in the plant for a time, which then prevents the newly developed and developing cells from elongating to their full potential length during rapid growth periods when water is abundant. In essence, PGRs can prevent cotton, a true tree by nature, from rapidly growing and competing to become the tallest tree in the forest. This can leave a more uniform and compact plant that can have a more desirable and uniform balance of vegetative and reproductive growth in cotton. This can focus a cotton plant, who as a tree thinks it has 200 years to live, from getting too tall in vegetative growth for our purposes. This now potentially shorter and humanly desirable plant has the potential of being more efficient in retaining and maturing fruit faster, especially if heat or other stresses occur later in the growing season.

There were quite a bit of 'potentials' and 'cans' in that previous paragraph (just in case you didn't notice). The bottom line is this. Cotton plants left to themselves in 'good' conditions will grow away and become 'rank.' Cotton plants will always be quite selfish. Cotton will sacrifice its fruit to save its self every time there is stress because it is a tree that thinks it has years of fruit production a head, not the few months we know it has. A shorter cotton plant has more potential to be more efficient in fruit retention and maturation than a taller, 'rank' plant does. PGRs, with over 30 years of research trials and use on High Plains cotton, have proven to keep developing cells (primarily in the forming stalk at the growing point terminal) from elongating to their full potential length. Once the synthetic hormone (PGR) runs out, any new cell development is not affected. To affect additional cells develop-

later, additional PGR treatments would be required. If applied at the right time, rate, and conditions, PGRs can keep plants shorter. If PGRs are applied to already stressed cotton plants, it can be disastrous.

One of our taller fields from NE Hale this week already has one PGR treatment applied along with its fleahopper treatment 2 weeks ago.

The right time to apply PGRs to cotton (if needed) is when growing conditions are good for young cotton or cotton with plenty of vegetative growth potential with ample available soil moisture and fertility. Remember, PGRs cannot shrink a plant that is already taller than we would like and never apply PGRs to cotton at or nearing cut-out or currently or nearing stress of any sort.

Corn and Sorghum

Our oldest corn is now at blister stage while our youngest is at V5. Our oldest sorghum is at 50% bloom and our youngest is just V1. We noted an uptick in Banks grass mites in our older corn this week, that still remained well below ET. Corn earworms are in just about every ear of pollenated corn now, where they will be of very limited economic impact. Our corn diseases still remain inexplicably absent. Although the population has been low over the past several seasons, we have initiated our corn borer scouting techniques for our tasseled corn this week. Here is a link to our video we made a few years ago on scouting for all likely pests in post tassel corn:

https://www.youtube.com/watch?v=jMVTcQv-ehM

Corn earworm/ bollworm this week causing minor tip damage only.

The sugarcane aphid has arrived in Hale County sorghum. With reports first from across the southern area of the county by our outstanding independent crop consultants and then confirmed in our PPM fields and research trials across the county before week's end. For our fields, these populations are only in establishment mode with less than 10% of all plants exhibiting notable colonies and have, so far, only been limited to post flag leaf stage fields. Our established High Plains SCA threshold for post boot sorghum is 30% of the plants with sizable colonies. Our many area younger sorghum fields still in the whorl are at an elevated risk for this pest. Threshold for whorl stage sorghum is at a reduced 20% infestation rate. We also now have 3 fully labeled products for this pest that are all very beneficial friendly. Please do not mistake the nearly harmless corn leaf aphid for the sugarcane aphid. The

Figure 1: Corn Leaf aphid

Figure 2: Yellow Sugarcane aphid

Figure 3: Sugarcane aphid (New invasive)

Figure 4: Greenbug aphid

two can be confused. In addition to slight but noteworthy body differences, the corn leaf aphid will primarily be feeding in the whorl of the plant while the sugarcane aphid should be found lower on the plant.

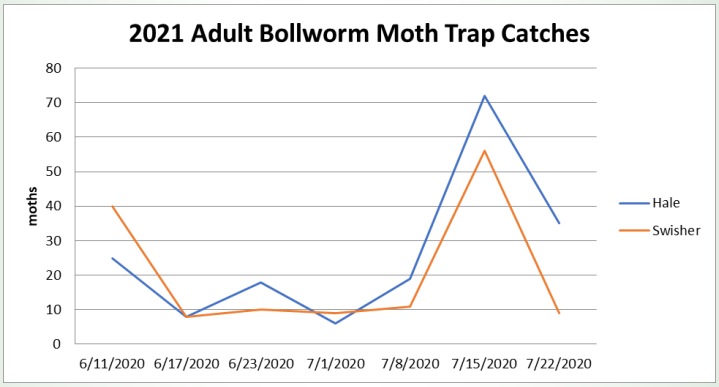
A fresh flight of fall armyworms also seems to be starting from the south also this week. Our percent foliage loss in whorl stage sorghum in that area increased from below 1% up to 2-3% with an increase in larval population pressure. While this remains far from the economic 30% foliage loss level, it certainly looks rough until the head is exerted later. We should keep an eye on this pest and fields might benefit from multiple spot checks this week as FAW do have the potential at high population levels to do extreme foliage damage in a short period of time. Once the head is exerted, the danger of economic damage expands greatly as the FAW then become part of the headworm complex and should be treated accordingly. Fields currently in bloom are also at risk from sorghum midge. While August 4th is the average migratory arrival date for midge to the Plainview area, we have reports of them from as far north as Kansas a few weeks ago.

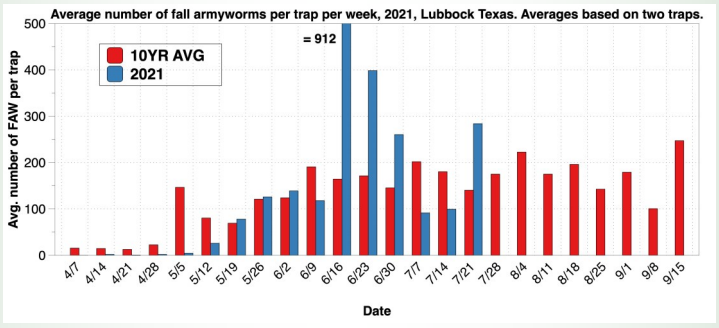
Syrphid fly larva feasting on SCA a few years

For any sorghum pest that might require treatment for any pest, I urge for the use of beneficial friendly product to save the predators for the needed SCA control. For exact pest thresholds and labeled products, please refer to our 'Managing Insect and Mite Pests of Texas Sorghum' guide. (NTO -085).

Extreme sorghum midge pressure from South Texas in

Old sorghum midge damage near Edmonson in 2014.





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

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Hope to see you there!

Blayne Reed