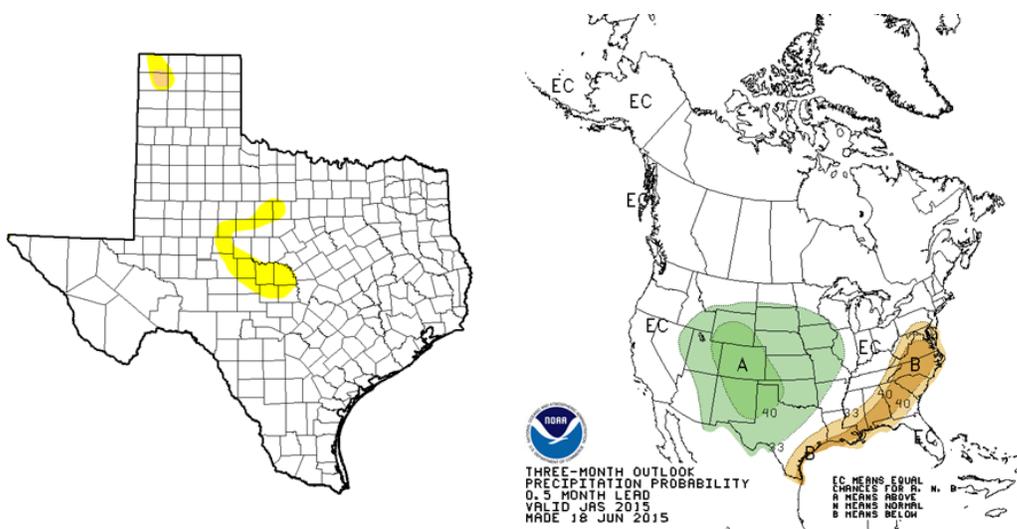


JULY 10, 2015

### General Status

Wet. From our field scouting stand point, that about sums this week up. We have only been able to get across about 1/3 of our participating acres this week due to the wet conditions. I have not heard too many complaints yet as this rain came at a great time for our earlier planted corn and have provided a great environment for grain production, which looks to be our primary crop focus this year. The rain reports I have indicate a range from about 2 inches through some of southern and southwestern Hale County up to around 6 inches in south-central Swisher.



Even though we have not been able to scout all of our participating acres this week and our weed IPM plans seem to be working better in the higher moisture and humidity, we still have a few pest and field situations to cover.

### Cotton

Cotton fields might not be as far set back as one might expect following a period of cool and wet weather during a 'normal' July. Without a doubt this week has not been ideal cotton growing conditions but this year's crop is late and still primarily in its early square set stages. Cotton becomes much more dependent upon heat unit accumulations during boll set, when the plant requires roughly 80°F minimum to move the leaf produced starches to the developing bolls

This is not to say that cotton does not need good heat unit accumulation during early square set, this does say that we do not have any bolls yet to move plant produced starches to yet and thus no starch starved lint yield impact. Therefore, these young cotton plants should be blowing and growing right along... if the moist conditions have not brought a heavy return to the “weather blight” and other cotton diseases.

With this season’s late cotton potential growing following our recent rain events, one of the primary questions has been about plant growth regulator (PGR) use in cotton. This would certainly be the time to discuss just what PGRs are and actually do and what they do not do.

### **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.



Kapok Silk cotton tree *Ceiba pentandra* Brazil

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 pro-

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 developing 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.

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 & Sorghum

With only a portion of our participating fields scouted thus far this week I can state that our oldest corn field should be in an early dough stage and our youngest corn is likely V2-V3 and growing happily in these moist conditions. Our sorghum fields should also be growing happily growing through whorl or vegetative growth stages with only a few fields that should be nearing flag leaf stage. We noted several corn fields with 'green snap' as a result of weather and winds, but our highest percent of lost corn plants that we have found so far was running at roughly 4% and still a very viable corn field following the damage.

In most of our corn fields we noted an increase in common rust and a few other lesser corn diseases this week with a few fields reaching what I would describe as a moderate level of disease pressure. With many older area corn fields reaching tassel and green silk, there is quite a bit of interest in blanket at tassel fungicide treatments for the 'yield bump' many of these fungicides seem to offer. I can state that this 'yield bump' in corn has never been proven in multiple Texas A&M AgriLife research trials to occur in the absence of disease pressure. I can also state that all of the fields we have checked this week had some level of disease present, but only a few were approaching what I would consider an ET treatment trigger level. The use of blanket fungicide treatments remains the subject of debate, which includes disease-fungicide resistance management arguments, with the decision about whether or not to apply in the hands of consultants and producers that know their fields best. With an increasing disease pressure proven in certain fields, spurred by moist conditions that are likely to continue, the decision picture soon becomes a bit clearer.

On the pest side, we are still on the lookout for fall armyworm (FAW) egg masses in corn that have put out an ear, spider mites, and now corn rootworms and grasshoppers have become a concern during silking and pollination stage corn. We are still finding FAW in non Bt corn and older sorghum but our numbers are fairly low on what we have been able to check. We did find a few spider mite colonies in a handful of corn fields but only with one or two mites present on the very lowest leaves. We have one corn field in Swisher currently pollenating where we detected a notable but sub-ET population of corn rootworms feeding on green silks. We will need to keep a close eye on that field over the next week or so. If the corn rootworms feeding in significant numbers could prevent pollination and serious yield loss could occur unless prevented.

## Grasshoppers in corn and sorghum



Our grasshopper population remains healthy. We are even receiving questions about economic population in corn and sorghum with reports of some area fields being treated. As a rule of thumb, corn and sorghum can take a tremendous amount of foliar damage that will not be economic. While this feeding does ‘ugly’ these crops terribly, our best hypothesis is that grasshopper foliar feeding should not be allowed to exceed 30% or reach the growing point. However, if any substantial feeding is noted to green silks just prior to or during corn pollination or sorghum heads, this can quickly become economic and action is required as soon as possible. In our scouting program we did have two corn fields that needed treatment for grasshoppers along the field margins that bordered CRP. If treatment for grasshoppers is required in these fields, I would urge producers to use products that are softer on predators. These products will have less risk of producing secondary flares of other pests such as spider mites or sugarcane aphids.

Dr. Ed Bynum, extension entomologist district 1, released an excellent write up on the current sugarcane aphid situation and gave a good summary of yellow sugarcane aphid management in the most recent edition of the Panhandle Pest Update. The yellow sugarcane aphid (not sugarcane aphid) has become an issue in a few area sorghum and hay type fields this week.

## Sugarcane Aphid Update

The latest news about the sugarcane aphid (SCA) is that on June 26 the aphids were confirmed by Dr. Charles Allen, Extension Entomologist, to be infesting grain sorghum fields in the West Central area of the state. The field locations were 1 mile north of Coleman, another just west of Rowena in Runnels County, and a field in Tom Green County. Then on June 29, Dr. Pat Porter, Extension Entomologist, reported finding a colony of the SCA on Johnsongrass near the Lubbock airport. On, July 1, Dr. Allen reported finding dead blue sugarcane aphids mixed in with the normal colored aphids. These dead blue sugarcane aphids had been parasitized by an *Aphelinus* parasitoid wasp. And, on July 8, Tommy Doederlein, IPM Extension Agent for Dawson and Lynn Counties, found SCA in an overwintering cage infesting Johnsongrass. But, Blayne Reed, IPM Extension Agent for Swisher, Hale, and Floyd Counties, still does not have any SCA at his overwintering site in Hale County. No SCA have been found or confirmed to be infesting sorghum in the Southern High Plains or the Texas Panhandle. Still with the earlier detection of the SCA in Lubbock this year, Tommy Doederlein, Pat Porter, Blayne Reed, and Kerry Siders wrote an excellent article on the management of SCA in whorl stage sorghum. This article and more detailed information for the other reports are available on the Texas Sugarcane Aphid News on-line site (<http://txscan.blogspot.com>). Also, on this site is a video of an *Aphelinus* parasitoid wasp laying an egg in an immature SCA.

## Yellow Sugarcane Aphid

While all of the attention has been on the new aphid, our yellow sugarcane aphid is showing up in grain sorghum fields. The County Extension Agent -Swisher, John Villalba, received a call on July 8 from a producer about finding aphids in his sorghum field. The farmer was concerned that the aphids were the new SCA pest. I was able to look at the aphids under a microscope and they were the yellow sugarcane aphid. It was important to properly identify the aphid so the correct control recommendations could be made.



The yellow sugarcane aphid, *Sipha flava* (Forbes), is usually a bright lemon yellow color with short spines (hairs) on the body. The cornicles (tail pipes) are very short and are barely seen without a hand lens. The aphids feed on the underside of the lower leaves. When feeding the aphid's saliva is toxic to the plant and causes seedling sorghum leaves to turn purple and older leaves to turn yellow. This toxin is very potent and very few aphids per leaf can cause a leaf to die. Economic injury levels have been established for yellow sugarcane aphids on seedling plants up to the three true-leaf stage (<http://aglifesciences.tamu.edu/entomology/wp-content/uploads/sites/12/2014/07/B-1220.pdf>). Larger sized plants can better tolerate more damage. Damage can still be significant on older plants, but we do not have a set threshold for making control decisions. However, using the same action threshold for greenbug on sorghum at different plant growth stages should prevent excessive yield losses when used for the yellow sugarcane aphid.

Photo: Scott Armstrong, USDA-ARS



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For quicker pest alerts-

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Bugshere:*

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registration at:*

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*We're on the air...*

*"Tuesday's with Blayne"  
from 6:30—7:00 AM  
on the 1090 Agri-  
Plex Report on 1090  
AM KVOP-  
Plainview.*

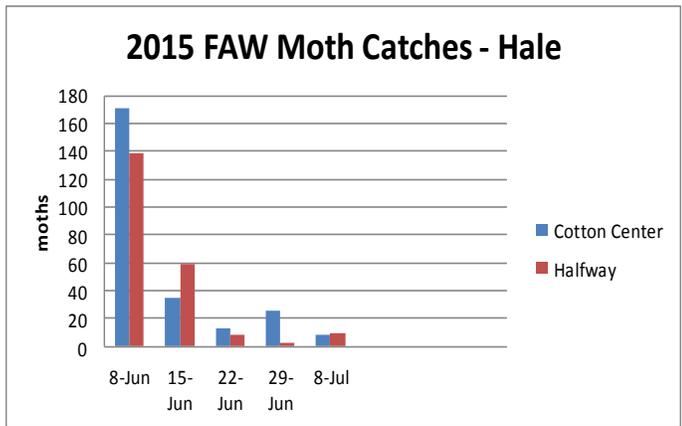
*"IPM Wednesdays" from  
1:00-2:30 PM on The  
Fox Talk 950 Ag  
Show. Fox Talk 950  
AM - Lubbock.*

There is very little data from research trials on products to use for control of the yellow sugarcane aphid. Our Extension guide, "Managing Insects and Mite Pests of Texas Sorghum", lists dimethoate for use after sorghum has emerged. Some prefer to use a mixture of chlorpyrifos and dimethoate for yellow sugarcane aphid control.

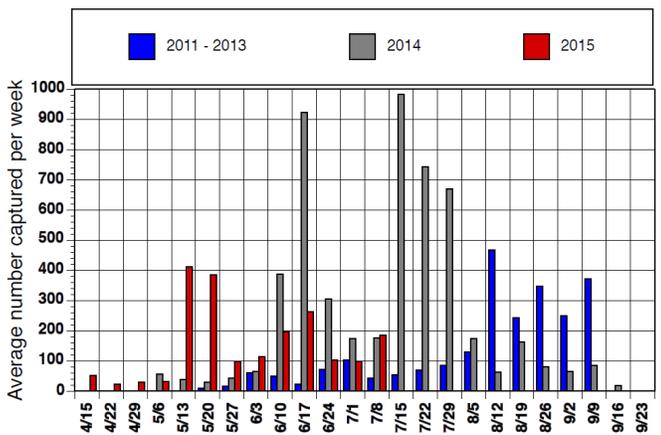
**Action threshold levels for greenbug (yellow sugarcane aphid) on sorghum at different growth stages**

Plant size	When to treat
Larger plant greater than 6 inches to boot	Colonies causing red spotting or yellowing of leaves and before any entire normal-sized leaves on 20% of plants are killed
Boot to heading	At death of one functional normal-sized leaf on 20% of plants
Head to hard dough	When colonies are sufficient to cause death of two normal-sized leaves on 20% of plants

Thanks Ed!!



2015 fall armyworm pheromone trap captures (moths per week) at Lubbock. Average of two traps.



*Blayne Reed*