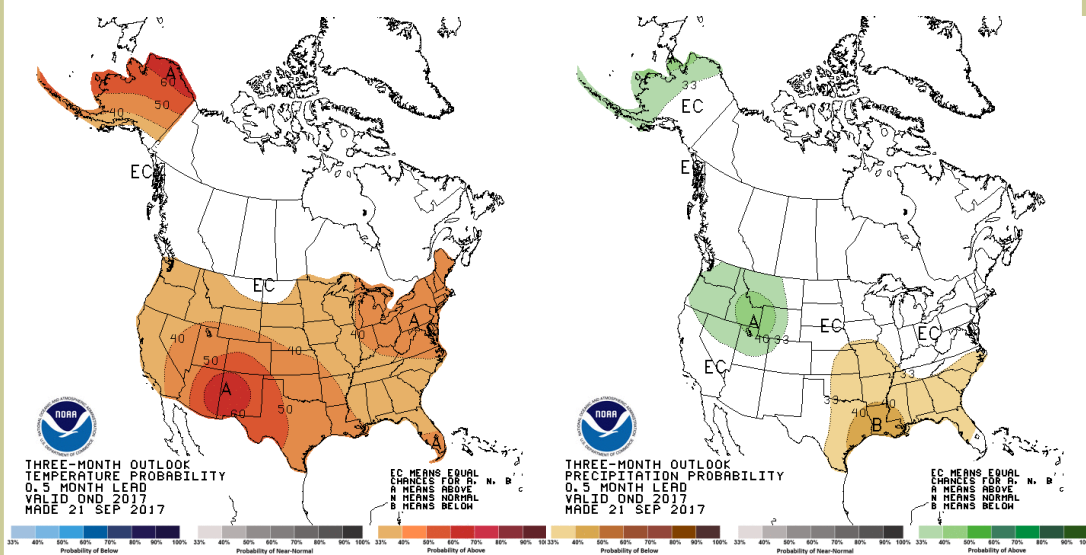


OCTOBER 12, 2017

General Status

For the past few weeks or so we had been socked in with moisture and cool temperatures, only to finally come out of the pattern into frosty and cold conditions. Finally, we are seeing clear skies and a few more wonderful heat units heading our way late this week. Wheat fields are off to a good start with the recent moisture, but our cotton fields are really needing to see that sunshine and gather the last of those heat units before they are gone for the year. Many of our cotton fields do read close to the finish line for harvest aid readiness with a few that are finally ready to be harvest aid treated. There are not as many fields ready this week as I had hoped but we should finally be able to start getting wheels moving leading up to cotton harvest soon. Unfortunately, there are many more fields that need much, much more heat and fiber development. With the weather not even able to decide what season it is, the pests and insects seem a bit confused too. The vast majority of our commodity fields have developed past most pest issues with just a few exceptions. Meanwhile, fresh curveballs continue coming our way, this time in the form of fumoncin in corn.



Cotton Start Date	Cotton End Date
5/29/2017	10/20/2017
Cotton Total Heat Units	1,988.55
<a href="#">Calculate</a>	

## Cotton

Before we enter the rundown of what we are seeing in our scouting program cotton this week, I would like to take everyone through a review of the science that goes into the 'art' of cotton harvest aids and determining cotton's harvest aid readiness.

First, here is a link to our 2017 High Plains Cotton Harvest-Aid Guide: <http://agrilife.org/lubbock/files/2017/08/2017-High-Plains-Cotton-Harvest-Aid-Guide.pdf>. I encourage everyone heading to the cotton fields this week to review this information if you have not already. The guide will go into detail of every aspect of determining when fields are ready through product uses and likely rates.

### **Quick review of harvest aid scouting in cotton** (taken from experiences and the 2017 Harvest Aid Guide)

When taking data for harvest aid readiness, there are three types of data that can be collected:

1. Open Boll %
2. Nodes Above Cracked Boll (NACB)
3. Uppermost Harvestable Boll Maturity (boll slice method : 1-3 scale)

Cotton fields should minimally be ready for harvest aid treatments when any one of the following three types of data collected averages, 60% of bolls are open (95% open bolls for desiccation or killing treatments), or when field averages 4 NACB, or when the uppermost harvestable boll reaches an average across the field maturity of 2.4. There plenty of instances and happenstances when only one category of cotton field maturity data reaches 'readiness' well ahead of the other two but, in most instances, all three should occur concurrently. Therefore, good field scouts can choose their favorite evaluation method and use it alone. I prefer to utilize all three when possible. This offers a self-checking conformation that a harvest aid treatment is not being applied too early and doing more economic harm to quality and yield. When in a need to rush across many fields in a short time frame, I may drop the percent open boll measurement as it is the most time consuming, but can also be utilized for yield estimates, making it the most popular bit of information producers like to see. In our scouting program, we make efforts to take at least one percent open boll data collection for each field during harvest aid season, but is likely to be dropped from subsequent and rushed scouting dates nearing maturity and likely freeze dates.



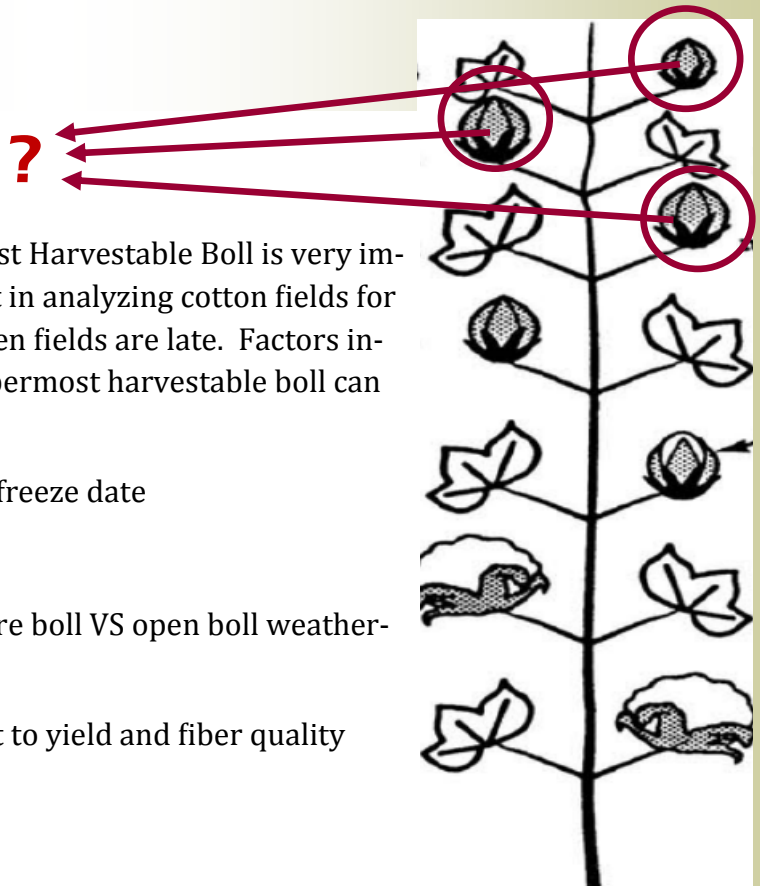
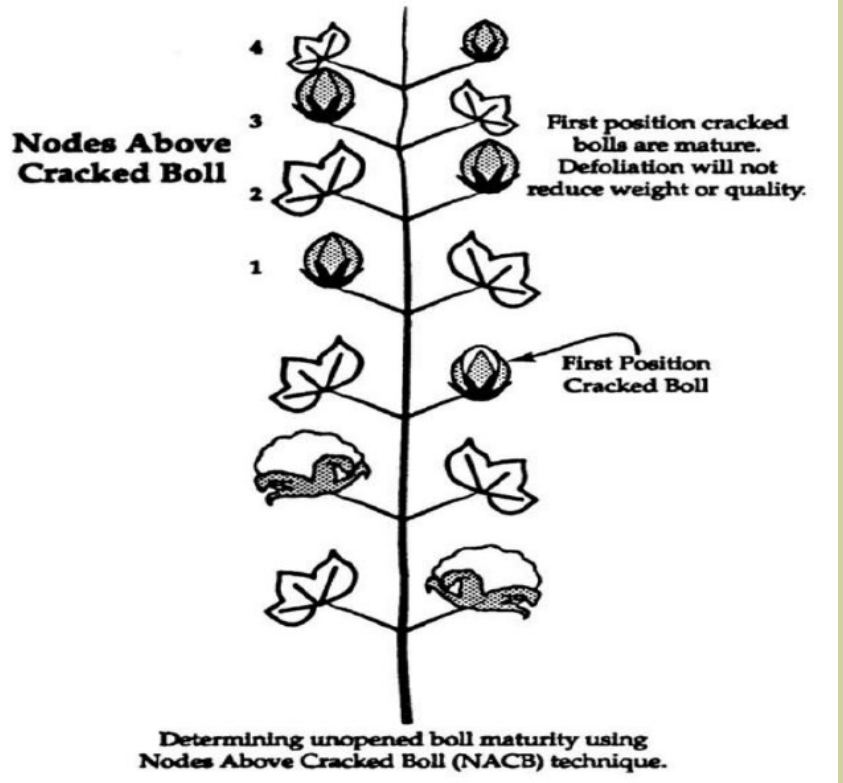
Photo of a 2.2 boll maturity rated uppermost harvestable boll this week.



Uppermost harvestable boll rating of 1.2 this week.



Uppermost harvestable boll rating of 1.7 this week.



Determining the Uppermost Harvestable Boll is very important but can be difficult in analyzing cotton fields for readiness, particularly when fields are late. Factors involved in choosing the uppermost harvestable boll can include:

- boll maturity VS likely freeze date
- Bloom date
- Time required to mature boll VS open boll weathering
- Boll's estimated impact to yield and fiber quality

This week our PPM program cotton ranged in uppermost harvestable boll maturity between 1.2 and 2.5 with most fields ranging between 1.8 and 2.2. Our NACB ranged between 2 and 9 with most fields coming in between 5 and 7. Our percent open ranged between 3% and 52% with most between 20% and 35%. As the bulk of our yielding bolls were set in a relatively short period of time this season, once this bulk of bolls start popping open, it should not take but a few weeks of heat unit accumulation to reach 'harvest aid readiness.' With the last 'average' heat unit accumulation date being October 5<sup>th</sup>, I am not sure we can count on much more.



View of one of our more mature PPM fields following cool/wet weather this week.

Despite this factor I am not a proponent of making applications when fields are not ready for harvest aids, unless a killing freeze is imminent. Dr. Seth Byrd, Cotton Agronomists District 2, addressed this issue the Texas Row Crops Newsletter recently. An excerpt from that article follows:

Immature cotton and cool weather may make it tempting to apply harvest-aids, in particular boll openers, well before the crop has reached optimal timing for applications ([60 – 75% open bolls or 4 nodes above cracked boll](#)). However, early applications are unlikely to be the most efficient and cost effective way to maximize the number of harvestable bolls. [According to this Cotton Physiology Today article, fiber development, while slow, will still occur down to temperatures in the mid-40's.](#) Even if ideal conditions occur intermittently, applying boll openers prematurely could result in opening bolls with immature fiber as well as bolls that are nearing maturity. It is important to note that there are no products, harvest-aids or otherwise, that will speed fiber maturation. Boll openers only weaken the sutures (the seams or creases between locs) on the bolls. Also, lint pounds per acre remains a priority over fiber quality; however, low micronaire cotton weighs less and can lead to substantial discounts. This means that a balance between fiber quality and yield should be a major factor when timing harvest-aid applications.

At this point in the season, the best option is to let the green bolls mature as much as possible throughout October and withhold applying harvest-aid products unless a hard freeze is predicted.

Thanks Dr. Byrd. The full article can be found here: <https://agrilife.org/texasrowcrops/2017/10/09/outlook-for-northern-high-plains-cotton-mitigating-cool-temperatures-and-an-immature-crop/>

We should still be watching for the odd cotton aphid in these fields also. Since our last PPM newsletter, aphid populations have crashed naturally. However, we can still find the odd cotton aphid that has the potential to increase and become issue at 12 aphids per leaf. All fields should be past economic bollworms today, despite a very odd late season increase in moth flights this week.

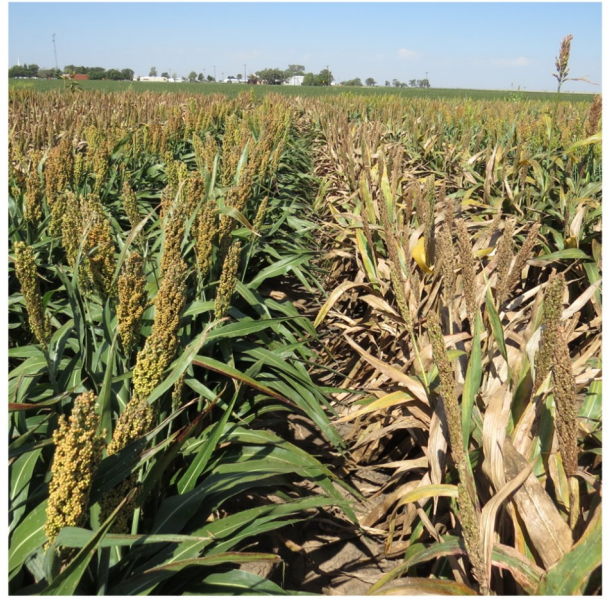


## Sorghum

Of our program sorghum fields and SCA research plots, all are in late dough stage, drying for harvest, or have already been harvested. For any field with grain still in the field, sugarcane aphids will remain an issue until the combine leaves the field. The SCA population looks to have been slowed during the cool weather but it is far from crashed. I would expect that with the return of sunlight and warmer temperatures, aphid feeding (and reproduction) would return to a much higher level. Grudgingly, I have to admit some fields in the area will be again at elevated risk for headworms for a time more.

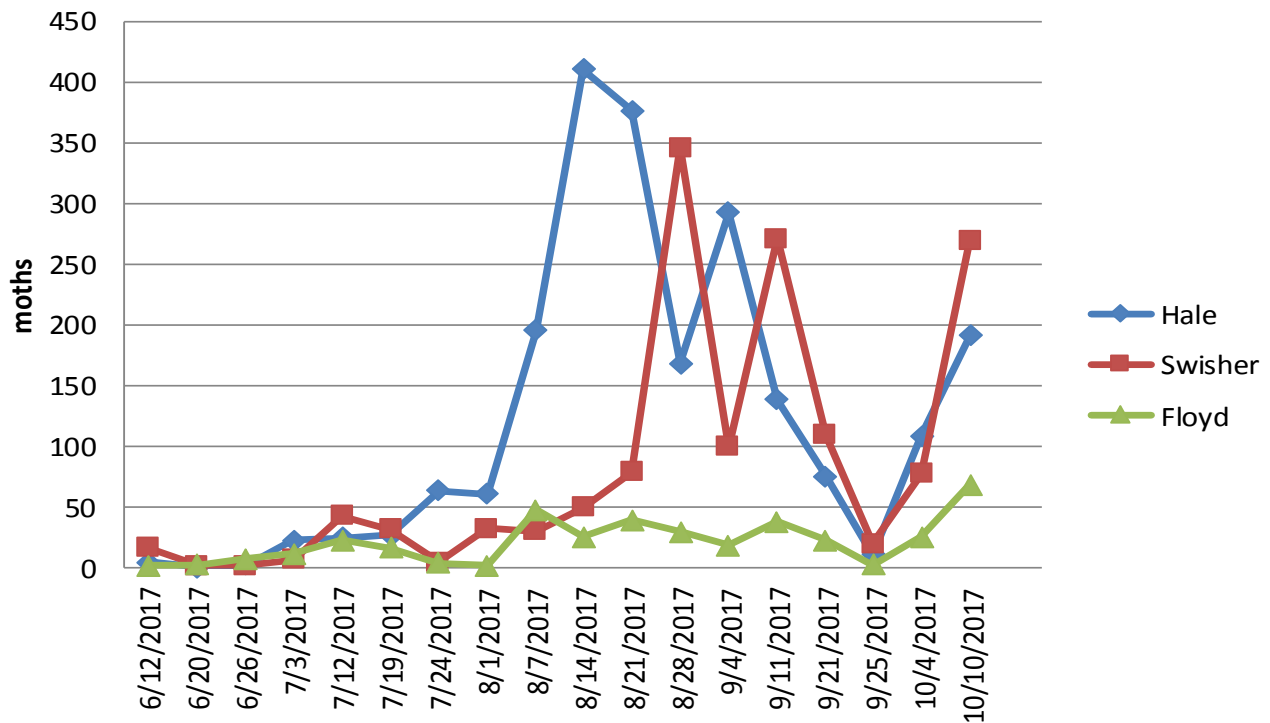
Our adult bollworm (headworm) moth traps increased (for inexplicable reasons) to very high levels again this week. These moths

should be looking for suitable hosts this week and could very well concentrate on the few fields still at risk for headworm issues.



View from a SCA test plot at Halfway. Good treatment on left, untreated on right. 9/22/2017.

### 2017 Adult Bollworm Moth Trap Catches





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## Corn

Both of our PPM corn fields are now past economic insect damage with the early planted having been harvested already and the late planted drying down for harvest. Without doubt, fumonisin and its 'appearance' in area corn has been the issue for corn recently. I have compiled links to what I feel the most comprehensive information we have on the subject today.

From the Texas Corn Producers "Stalk Talk" newsletter today were three quality new videos to help producers with immediate questions:

A chat with plant pathologist on fumonisin: [https://www.youtube.com/watch?v=cwiWNlb\\_Lu8&feature=youtu.be](https://www.youtube.com/watch?v=cwiWNlb_Lu8&feature=youtu.be)

Fumonisin regulations and testing: <https://www.youtube.com/watch?v=81b1liCDXnQ&feature=youtu.be>

Insurance procedures for fumonisin loss claims: <https://www.youtube.com/watch?v=IofRIHrIekE&feature=youtu.be>

Dr. Pat Porter, District 2 Entomologist, released on "Focus" this week released an outstanding article regarding and entomologist's perspective on insect damage and fumonisin with complete with data he and Dr. Katelyn Kesheimer, EA-IPM Lubbock, & Crosby, collected from area Bt research trials this week: <http://focusonagriculture.blogspot.com/2017/10/fumonisin-levels-and-insect-damage-in.html>

Lastly, here is a link to the fumonisin tested occurrence maps from Texas A&M AgriLife dating back to 2012: <http://mycotoxinbmps.tamu.edu/mapsupdate.aspx>

The issues surrounding the unexpectedly high occurrence of fumonisin and preventing it in 2018 will be something actively addressed this winter.



2017 PPM Team. L-R: Blayne Reed IPM Agent, Denise Reed lab tech, Jim Graham field scout, Nik Clarkson intern, Trey Buxton intern.

With this likely being the last PPM newsletter of the season, look for updates on the Plains Pest Bugoshere blog, on the radio programs, and as always, please call if we can be of assistance. See you in 2018!

*Blayne Reed*