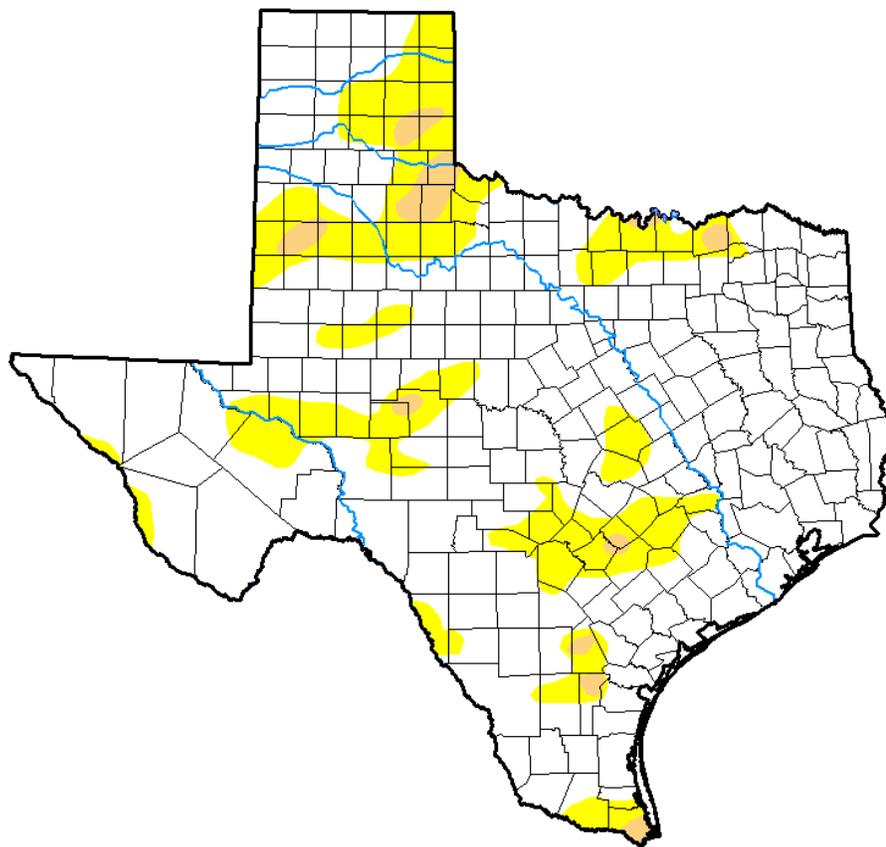


JUNE 16, 2017

General Status

I think many of us would argue with the NOAA drought map this week, while others would give it a disgruntled nod. That is how scattered or ‘personalized’ the weather events were this past week. I believe all of us in Hale, Swisher, & Floyd have seen some moisture from above over the past few weeks, but some of us have not had more than 0.1” or so for any given setting. This has been followed closely by winds and hot temperatures that helped sap the seed bed leaving it drier than before the rains. Meanwhile others received heavy rains, hail, and high winds. Today, I do not feel either are content with their respective situation with June flying by like the clouds. With some localized hailed out or hailed on areas aside, our irrigated cotton, corn, and sorghum are doing well. Our dryland acres are more dependent upon the what the weather has dealt out. Thrips are still an issue in cotton, especially in the usual northern areas, but less so than previous weeks. Despite thrips and weather damage, crops and weeds continue to develop.



Cotton

This week our scouting program cotton acres ranged in stage from pushing to matchhead square stage. Thrips were again our only insect pest of note. Our highest field population of thrips came in again at a very high 6.5 thrips per true leaf stage. This was the exception rather than the rule this week as most fields had much fewer thrips behind treatments, rains, and a lessening of movement from wheat. Most fields held between 0 thrips found and 0.5 thrips per true leaf with the lightest consistent thrips populations across southern Hale & Floyd. Thrips damage in the northern areas of Hale, Floyd and across all of Swisher is quite high, but fresh growth is showing recovery as thrips come under better control. Beneficials are only now beginning to be found in our counts and even then they are only on the older plants that have begun to develop squares.

The 'personalized' hail events did impact some of our scouting acres as well, but was only localized to a small area in southeastern Swisher and northwestern Floyd. While there are other areas that did lose cotton acres, this is the only area our program lost.



Heavy thrips damage in southwest central Swisher this week as the plants begin to recover following treatment.



Southern Hale field with mild weather damage.

For those making stand profitability decisions following the weather events, I am reprinting here our blog article about the subject this week:

Taking Cotton Stand Counts (Getting Plants per Acre) Following Hail Events

Taking plants per acre data, or otherwise called taking stand counts, is always important early in cotton's growing season to producers. The benefits are multiple but include understanding field establishment success, plant population in relation to profitability level expectation, and better managing input amounts to fit the established plant population at the very least. The wise producer and crop consultant can make use of this information in deeper ways. Other uses such as cotton varietal fit, fitting precision application needs to exacting acres, and precisely calculating pest populations to a per acre economic level are all based upon knowing the plant population per acre. Stand counts are never more important than following hail or other weather events that damaged and likely killed many plants per acre like isolated acres in our area did this week. It then becomes essential that we know precisely what the surviving plants per acre (PPA) are so that we can make an educated decision regarding the profitability of the damaged field. In many cases, it is obvious. Either the damage was light that our PPA was only lightly impacted, if at all. In the other extreme it does not take an expert to see that there are just not enough surviving plants to remain a field. Unfortunately, it is not always so cut and dry.

It has been proven that a bare minimum of 27,000 irrigated and 13,000 dryland fairly evenly distributed plants per acre need to have healthy growth points before the field loses profit potential. Gaps in a field that are larger than a foot can cause significant yield loss, but cotton can compensate for gaps shorter than a foot if they aren't too repetitive. So, to share with you how our scouting team helps producers find their establishing and / or surviving PPA stand counts, I have asked one of our summer interns, Nikolas Clarkson to explain what I expect of our field scouts when we gather this data.

My name is Nikolas Clarkson and I am currently a student at Texas Tech. I am interning for Texas A&M AgriLife this summer with IPM Agent Blayne Reed in Hale, Swisher, and Floyd County. Last summer I worked for Mr. Reed as a field scout which gave me a wealth of experience of how to recognize issues and problems in cotton, corn, and sorghum fields in West Texas that I plan on building on this year to carry me throughout my career.

When I step into a young cotton field, an important thing to do is to take stand counts. Producers should be able to utilize this information for the whole season. I know we do in Blayne's recommendations and suggestions to our producers. Because we must get multiple stand counts from across many fields in a day, we need a method that can be managed efficiently. Blayne likes for us to use 1/1000th of an acre and for us to get at least 5 of these counts per field. The minimum number of these counts can go



Hail damage in northwest Floyd this week.

much higher than that with field size and perhaps damage level considerations. The length of row feet that makes up this 1/1000th of an acre is determined by how wide a farmer's rows are or their row spacings.

The very first thing you need to know to figure how much 1/1000th of an acre is in any field is the number for square feet per acre, which is 43,560. This number helps us start calculations. Next, you need to determine what the row width is in the field you are checking. This could be from 30 inch rows to 40 inch rows. Next, convert this row spacing number from inches to feet. For example, for 40-inch rows, this is $3.3\overline{3}$ or 40 divided by 12. Then divide 43,560 by the $3.3\overline{3}$ figure. This gives us 13,068. This means there are 13,068 row feet in one acre of 40-inch row spacings. Next, you divide this number by 1000 so you

know the exact number of feet is in a 1/1000th of an acre. This very large number then becomes a manageable 13.068 feet. Therefore, there would be 13 feet 0.8 inches in a 1/1000th of an acre at that row spacing.

Now, you can measure each stand count with a measuring tape, or even cut rope and stakes to that length but Blayne likes us to record our toe to heel steps for all of the various row spacings our producers utilize. In order to do this, you will need a big tape measure, and measure out 13' 0.8" (for our 40-inch row example) on flat ground. This may require a partner to help you. Now, start with your heel at 0 and start stepping heel to toe right next to the tape putting one foot in front of the other until you reach the desired length. This always reminds me of taking a sobriety test. Count and record the number of your steps it takes you to get to 13' 0.8" for 40-inch rows. It is not likely to be an exact number of steps, so for the last bit, we say it was a 1/4 step or 9/10 step or whatever, just so you know on your shoe where the exact end length is. In the example of 40-inch rows, my steps are 13 1/4. Now I know that I can go to a field and mark off 13 & 1/4 heel to toe steps to accurately measure a 1/1000th of an acre.

Here is a listing of 1/1000th of an acre in feet for all the common area row spacings:

$$40'' = 13.068'$$

$$38'' = 13.756'$$

$$36'' = 14.52'$$

$$32'' = 16.335'$$

$$30'' = 17.424'$$

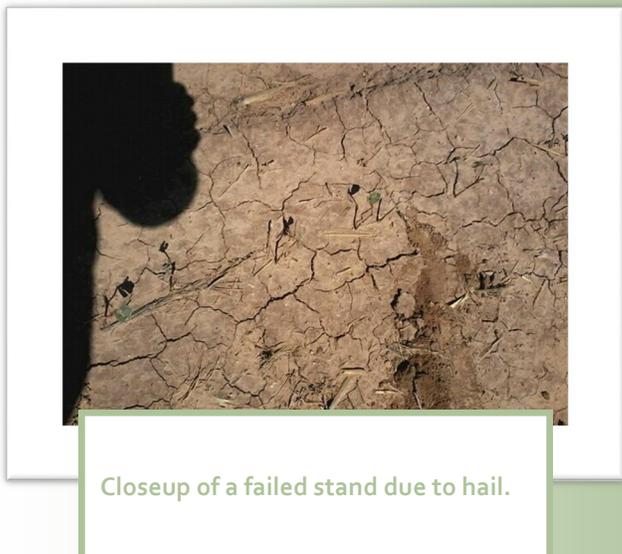
So now that we know how to calculate a 1/1000th of an acre and have our steps for stand counts, we can go into the field and actually do it. When getting stand counts in a field try to cover as much ground in the field as possible so that you are able to see every side of the field and account for all variables. We are getting a minimum of 5 counts per field, but need to account for weed patches, low spots, edge effects, and slopes to make sure our 'random' samples are actually representative of the field. The more variables the field has, or the larger the field, or even the tougher the decision in keeping a field or plowing it up will cause us to need to get more stand counts. Blayne always tells us, "the more data, the better data. We just need to get enough data to find the answers we need, but we better have enough or we will be wrong." I don't always like that but taking more stand counts won't really hurt you it will just give you a more accurate number in the end. In pivots, it might be more important to get a few more samples from the outer pivot towers as that represents more acres than inside.

When we are ready to actually get our stand counts, I look 'randomly' for an average, representative row to take my stand count on. We are taught to just pick a random row and start our stand count, measure off your steps (1/1000th of an acre), mark the correct distance, and count the living plants in-between your marks. Some rows will look better than others and it may be a natural tendency to do every stand count on the best rows or to find the problem areas and get too much data from those areas trying to understand them better. Either of those mistakes will get you inaccurate data. The best way to find a row to do a stand count on is just picking at random at even intervals across the field, but checking the area around that row to make sure it represents the area well. After you have counted all the living plants between your 1/1000th of an acre stepped off marks, record them well and move on to the next 'random' stop for another stand count. To calculate how many plants per acre a field has, you simply average all of your stand counts recorded for each field and multiply by 1000.

Sometimes the tough part in getting stand counts is determining a living plant, especially following hail or bad weather. Early on as the stands are just emerging you can usually tell which cotton seedlings are going to die from seedling disease, cool weather, or had too many problems in coming up. These plants just cannot keep up in the heat and will wilt or sometimes will show wireworm damage or some other clue that lets you know they will not survive. Simply do not count these plants. They will die in a few days. After bad weather, like hail, it is best to wait a few days before getting stand counts. The day following the damage, all plants will look terrible and it is very easy to get bad data. It is much better to wait until 2 to 4 days so that you can tell if the plant is coming back with a healthy growing point or alternate growing point. If enough plants survive without too many gaps and regrow from this early season damage, it might still regrow into a profitable field, or at least the producer would be financially better to keep the field. If the stand for a field is too gappy or does not have enough plants per acre, they likely need to turn the field into insurance and possibly see about replanting, possibly to another crop.

Thanks Nik!

Blayne



Closeup of a failed stand due to hail.



225 Broadway, Suite 6
Plainview, TX 79072

Tel: 806.291.5267
Fax: 806.291.5266

E-mail:

WEB

[http://
hale.agrilife.org](http://hale.agrilife.org)

Blayne.Reed@ag.tamu.edu

For quicker pest alerts-

*Plains Pest
Bugshere:*

<http://>

halecountyipm.blogspot.com/

*Pest Patrol Hotline,
registration at:*

www.syngentapestpatrol.com

Educational programs by the Texas A&M AgriLife Extension Service serve people of all ages regardless of socioeconomic level, race, color, religion, sex, disability or national origin.

The information given herein is for educational purposes only. References to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by the Texas A&M AgriLife Extension Service is implied nor does it imply its approval to the exclusion of other products that also may be suitable.

We're on the air...

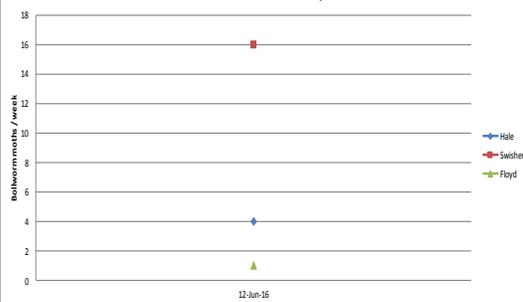
*"Tuesday's with Blayne"
from 6:30—7:00 AM
on the HPRN net-
work on 1090 AM
KVOP-Plainview.*

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

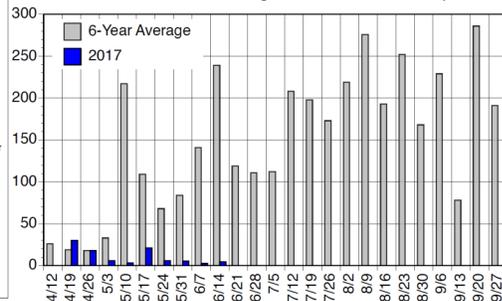
Corn & Sorghum

Once again, things remain quiet in our program corn and sorghum fields. Our corn came in at V8 and had a hint of a destroyed spider mite colony that had been demolished by the thrips population. We should be on the lookout for a flush of spider mites, who love higher temperatures and slightly stressed corn. Our sorghum came in this week at V6-V7 with almost no insect activity noted in-field, which includes the usual bountiful fall armyworm whorl damage to non-Bt corn and sorghum fields. Beneficials, early season thrips aside, seem strangely absent from both of these crops too.

2017 Adult Bollworm Moth Trap Catches



Average number of fall armyworm moths per trap per week, Lubbock, Texas, 2017. Averages are based on two traps.



Fall armyworm and bollworm moth catches have been very light for the region so far.

The bollworms we are picking up this week likely overwintered locally, but even this is lighter than 'normal.' The populations of both bollworms and fall armyworms farther south are reported to be 'normal' and causing some issues in Bt and non-Bt fields alike. We will keep you informed as we progress through the summer.

Blayne Reed