

August 18, 2017 - Volume XXV - Number 5

Crop Management Newsletter

News about Crop Management for producers in Dawson and Lynn Counties.

Thanks to the sponsors and the gins who support the Dawson/Lynn IPM Program
(found on page 2)

In the Fields Happening Snapshot

Aphids are being found in cotton.

60% of fields have reached cutout (NAWF <5) and have an average 83.8% boll retention;
30% of fields are in the bloom to boll stage and have a 92.5% boll retention;
10% of fields are at 1st bloom and have a 94.8% square retention.

Aphids

I have been observing a light scattering of aphids in most all the fields in the scouting program. I have also received several phone calls concerning aphids.

The worst I have observed has about 2% of the plants that would surpass the threshold of 50 aphids per leaf. I have also started seeing an increase in our beneficial numbers, mainly lady beetles but also syrphid fly larvae and a few lacewing larvae.

The “hot spots” are just a couple plants and not the truck size spots we have observed in the past.

At this point, I would not get too excited about the aphids. I actually think it might be a good thing; now there is a food source for the beneficials, which have been non-existent to this point in the season. However, keep monitoring the aphids so they don't get out of control. And cause issues when we have open cotton.

Time vs. Ground

A big portion of our crop is 4-6 weeks behind which began with planting and crop establishment. Now, we can't make up the time that we lost but I think we can make up some ground (compared to most years) in these late planted fields.. Why? How?

This is my reasoning. We got an August rain! Most years, we come to August needing a rain and we end August still needing a rain. So, through the month of August our crop is just holding on and not developing and unloads fruit (the Great Adjustment: see last weeks newsletter). With these August rains, our crop can continue to develop fruiting nodes, produce more fruiting sites and retain more of its fruit.

So, there is hope, however we still need a great fall season.

The information given herein is for educational purposes only. References to commercial products or trade names are made with the understanding that no discrimination is intended and no endorsement by Texas A&M AgriLife Extension Service is implied. Educational programs conducted by the Texas A&M AgriLife Extension Service are open to all people without regard to race, color, religion, sex, national origin, age, disability, genetic information or veteran status.

The Texas A&M University System, U.S. Department of Agriculture and the County Commissioners Courts of Texas cooperating.

Growth and Development Understanding Plant Growth Regulators (PGRs) and their use in Cotton

First off, PGRs do not increase lint yield in and of themselves. As the name suggest, they are a **growth regulator** and do not increase the number of fruiting sites or the speed in which fruiting sites are added to the plant (**development**) - that is genetics and environmental respectively.

PGRs are synthetic plant hormones, period. Gibberellins are the most utilized or targeted plant hormone in most PGRs. Naturally occurring gibberellins regulate vegetative growth and promote cell division and expansion. With synthetic applications of PGRs, gibberellins are reduced in the plant for a time, which prevents the newly developed and developing cells from elongating to their full potential during periods of rapid growth when water and nutrients are 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 and become 'rank.' PGR use allows for a more uniform and compact plant that is more desirable come harvest time. This shorter and managed plant has the potential of being more efficient in retaining and maturing it's fruit, especially if heat or other stresses occur later in the growing season, compared to a 'rank' plant.

Cotton plants will always be quite selfish. Cotton will sacrifice its fruit to save itself every time it is stressed because it is a tree that thinks it has years of fruit production ahead, not the few months we force it to have.

PGRs,, with over 30 years of research trials and use on High Plains cotton, have proven that when applied at the right time, rate, and condition, keep developing cells (primarily at the growing point of the forming stalk or terminal) from elongating to their full potential. Once the synthetic hormone (PGR) runs out, new cell development is not affected. To affect these newly developing cells, additional PGR treatments would be required.

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 having ample available soil moisture and fertility. Remember, PGRs cannot shrink a plant that is already taller than desired. Never apply PGRs to cotton currently or potentially nearing any kind of stress or to cotton nearing cutout.

Special THANKS to those who support
Agriculture and the Lynn/Dawson IPM
Program

All-Star Sponsorship Level

Lamesa Cotton Growers

Dawson County Commissioners Court

Many Thanks to the Gins who participate and support the Lynn/Dawson IPM Program

Adcock Gin

Flower Grove Coop Gin

King - Mesa Gin

United Gin Corporation

Woolam Gin

Tommy Doederlein

Tommy Doederlein
Extension Agent - IPM
(806)872-3444 (office)
(806)759-7030 (cell)
t-doederlein@tamu.edu

Late Season Plant Mapping

IF you are plant mapping your fields, you need to be careful not to give yourself false hope. Let me explain: when taking NAWF we find plants with a first position white flower and record the total number of nodes above that white flower. We observe that measure each week and follow it as it reaches the point of cutout (NAWF=5). We can continue to record the NAWF for a couple more weeks and watch the measure drop to around NAWF=2. It is at this point we really need to be careful.

There will be a set of plants that are physiologically younger and if you were to record the NAWF from these plants you would come up with an increase in the NAWF - providing that false hope.

I would recommend that after reaching NAWF=3 or less to discontinue that measure and be prepared to record the NACB (nodes above cracked boll).

