

## WEST PLAINS IPM UPDATE

News about  
Integrated Pest  
Management in  
Hockley and  
Cochran Counties  
from Kerry Siders.



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*Partners with Nature*

### Current Crop and Pest Situation

**Cotton** ranges from just beginning to bloom with as many as eight nodes above white flower (NAWF) to hard cut-out with no nodes above white flower or literally blooming out the top. Looking at the IPM scouting program fields as a representation of the area cotton crop, we see that 75% of the fields have reached physiological cutout (< 5 NAWF) this week. For these fields which have reached 5 NAWF we need approximately 400 more heat units (HU) to be safe from most insect damage. With the current weather trend of +20 heat units per day, those fields which have reached cutout should be safe around August 20-25<sup>th</sup> (400 HU divided by 20 HU/day = 20 days, added to the 1<sup>st</sup> thru the 5<sup>th</sup> of August). The remaining 25% of the cotton acreage has such a wide range of maturity levels and is difficult to say when it will be safe. I would approach these later maturing fields from this angle. We historically say that August 15<sup>th</sup> is the last effective bloom date, or that date which a boll can be formed, have time to mature, and contribute to yield. Now that is not to say that a boll can not be formed after the 15<sup>th</sup> of August but the odds of it contributing to yield and especially quality are low. Therefore, if we continue with this weather pattern into September, and are accumulating 20 HU/day we can add 20 days to this date of August 15. This would give us a target of September 4 for the latest those late fields would need to be monitored for possible insect infestations. The measurement of NAWF is such an important gauge of maturity and can help project time needed to be safe from insects and especially manage irrigation. In fact, if you call me with questions on managing irrigation or other situations in your cotton one of the first questions I will ask is "how many nodes do you have above white flower on average in the field in question".

Insect activity has been almost non-existent this week. I cannot find cotton aphids like I had been a couple weeks ago in small pockets of 1-2 plant infestations. But keep watching out for aphids, especially in skippy stands and/or where nitrogen was applied late. Monitor non-Bt cotton varieties for bollworm activity as we are in the window of time when they would historically be active.

One thing which you may notice over the next several days is fruit being shed from the cotton plant. This shed is not insect induced. But rather an adjustment in the fruit load, which has been in most cases above 80% since squaring began. So the plant is unable to retain more than approximately 62% of fruit. So hopefully any fruit coming off is either second or third position small squares and from the upper portions of the plant. Moisture stress, and lack of sufficient nitrogen or other nutrients can also induce fruit shed.

## COTTON IRRIGATION MANAGEMENT

I mentioned irrigation management above. I know many are wondering when they can start backing off and shutting the water down. Again, the NAWF measurement can be helpful. This will let you know where your current top boll position is and how old previously set bolls are. As an example if we have a white bloom three nodes down from the top you have 2 NAWF. Now I am only referring to first position fruit. So just below that white flower should be a small boll which would be approximately 1-3 days old. The boll directly below it was formed 60 heat units before this small boll. Which on average this year is 3 days. So if there are five first position bolls present below this top small boll we can estimate that the oldest boll is somewhere around 15 days old right now. In other words that oldest boll would have been a bloom around July 19<sup>th</sup>. Okay, now that you know how to judge the age of a boll you should consider which of the uppermost bolls you can realistically take to harvest. Let us be optimistic and say that the white bloom up near the top is the last one we think we have time to mature out. Okay then, this flower will be a boll in a day or so. This boll cannot be water stressed for about twenty days. So this plant needs good water through August 24. Now this moisture may come from irrigation or rain. After August 25<sup>th</sup> this boll can take moderate stress, meaning that it can wilt down on a hot afternoon as long as it completely recovers the next morning. By September 20 or when this last boll is about 45 days old it can take severe water stress and it should not cause quality or yield loss. In fact, you would like for this to be the ideal target of when the soil dries out. In fact, to continue to water any later would delay maturity and could cause harvest problems. So I throw these dates out only as examples. You will have to look at your field, take into consideration your irrigation system, and what is a realistic target for last effective bloom date and yield expectations. I would be glad to help you assess your particular field situation.

## West Texas Agricultural Chemicals Institute Annual Conference

The annual meeting of the West Texas Agricultural Chemicals Institute has been scheduled for Thursday, Sept. 6, at the Scottish Rite Temple - Learning Center, located at 1101 70th Street in Lubbock, (South Loop 289 and Interstate 27).

This year represents the 60th meeting of WTACI, an unincorporated organization of dealers, industry representatives, agricultural producers, scientists, educators, and agribusiness members who support education and research programs promoting safe and effective use of agricultural chemicals and protection and preservation of the area's natural resources.

Topics to be discussed at the conference include various aspects of pest identification and management, pesticide application and disposal, research efforts on row crops in the High Plains, and much more. The Texas Department of Agriculture (TDA) has approved a total of 6.5 continuing education units (CEU's) in the areas of IPM (1.0), Pesticide Laws and Regs (1.0), Drift Minimization (1.0) and General (3.5). In addition, the WTACI program has been approved for 4.0, 2.0 and 0.5 hours of Pest Management, Crop Management and Professional Development, respectively. A detailed list of presentations and speakers is available at <http://wtaci.tamu.edu/>. Click on the "Conference Program" button.

Pre-registration currently is available online at <http://wtaci.tamu.edu/onlineregistration.php>. Registration forms have been mailed. On-line registration fees are \$75 for conference attendees and \$300 for a booth and must be completed or postmarked by August 31. On-site registration will begin at 7:00 the day of the conference and will cost \$95 for attendees and \$325 for booth sponsors. Lunch will be provided as part of the registration fee.

Contact Jason Woodward at 806-632-0762 or [jewoodward@ag.tamu.edu](mailto:jewoodward@ag.tamu.edu) for questions about the program and CEU's. If you have trouble or questions regarding registration contact David Pointer, 806-746-4021 or [dlpointer@ag.tamu.edu](mailto:dlpointer@ag.tamu.edu).

WEST PLAINS IPM UPDATE is a publication of the Texas AgriLife Extension Service IPM Program in Hockley and Cochran Counties.

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