



# Cotton Comments

OSU Southwest Oklahoma Research and Extension Center  
Altus, OK



October 27, 2011

Volume 1 Edition 16

## Crop update

The finish line for the 2011 cotton crop is within sight. The cotton growing season is essentially over, especially with temperatures in some areas hitting lows in the mid-30 degree range. At Altus, we encountered two days of lows in the upper 30s on the 19<sup>th</sup> and 20<sup>th</sup>. When temperatures get below 40 degrees, fiber development is essentially over and the “clock has run out.” We have generally had an excellent October for finishing out the crop. The “normal” heat unit accumulation for Altus for October is about 102. Through the 24<sup>th</sup> this year, Altus had about 175 heat units. This is well above normal. Some fields that were pushed into September with late irrigation will have extremely late-set bolls and may run the risk of immaturity. This immaturity may result in low micronaire at classing. Only time will tell.

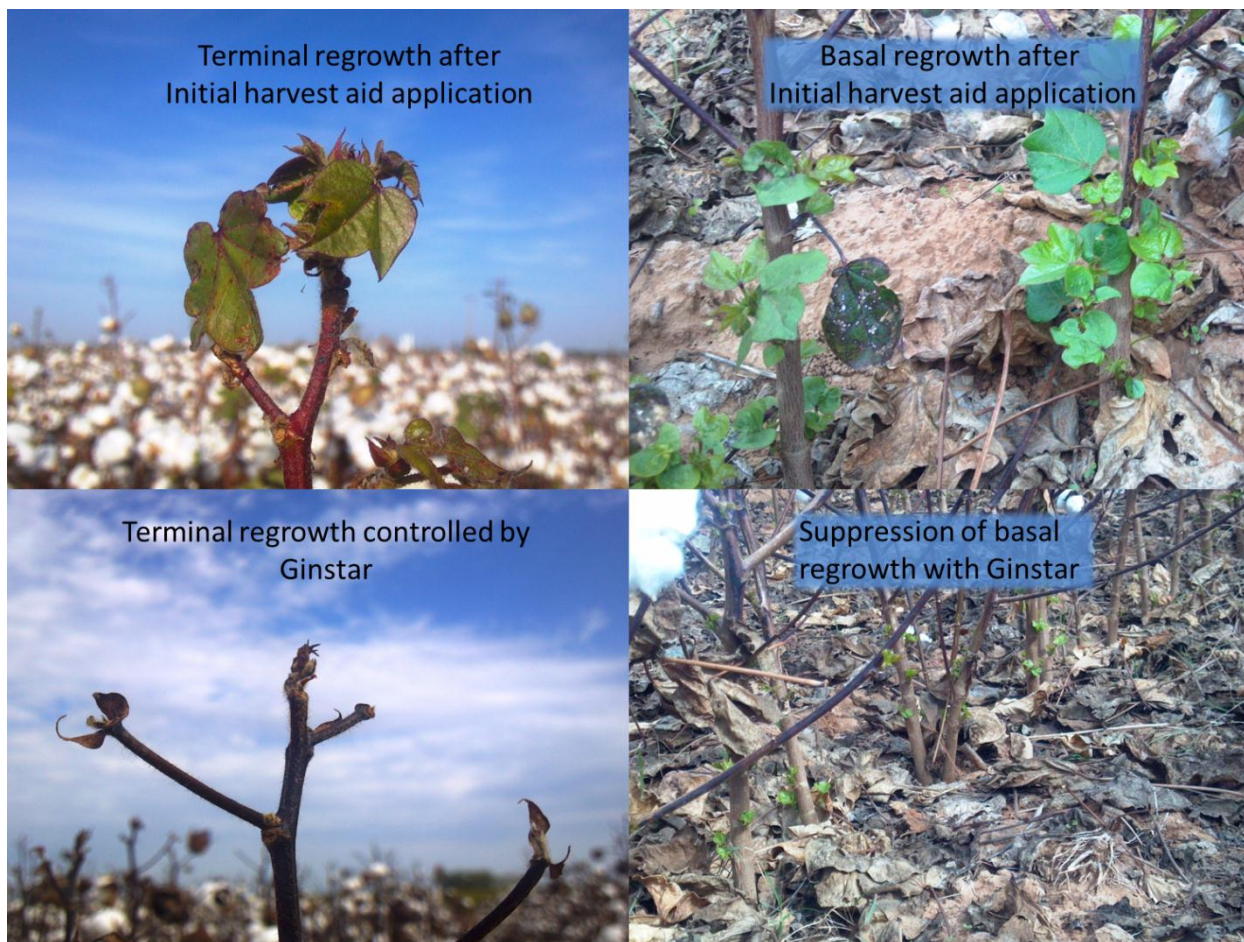
## Harvest Aid Demonstrations and Research Trials

Harvest aid demonstrations and research trials were established at Hollis in a subsurface drip irrigated field (two dates of application with the same products); at Tipton in a furrow irrigated field; and at the Fort Cobb Research Station in a sprinkler irrigated field. These sites included tank mixtures of various products that normally provide acceptable performance as well as some newer or “tweaked” applications. To see results in a field near Hollis with nearly 3-bale yield potential, click here ([click here for Harvest Aid Virtual Tour](#))

## Secondary Growth Issues

Cotton secondary growth (or “regrowth”) sometimes occurs after the plants have “cutout” or stopped blooming due to drought stress or physiological maturity. If warm temperatures and rainfall are encountered at that time, the cotton plant growth cycle can start again, and one can find secondary growth in the terminal and on many of the other nodes on the plant. Secondary growth is difficult to control since young foliage does not form abscission layers or shed as older leaves do. Low levels of secondary growth may not necessarily be a problem however, to minimize lint staining potential, the gin must have tower dryers and two stages of lint cleaning, and modules need to be ginned as soon as possible after harvest. Getting stacked up at the gin this year will likely not be a problem for many areas because of the small crop.

Based on producer calls, some secondary growth has been observed in fields which had harvest aid products applied before the recent rainfall. Tribufos (Def or Folex) as the defoliant component in an ethephon/defoliant tank mix can many times result in substantial juvenile growth if extremely warm temperatures follow rainfall. Ginstar is a good defoliant that is also one of the most effective products for suppressing regrowth.



Sequential paraquat (Gramoxone Inteon, Firestorm, or Parazone) applications for final crop desiccation are generally used when the crop will be stripper harvested. However, paraquat may not effectively desiccate secondary growth prior to stripper harvesting. A few calls concerning this have been received. In order to improve the desiccation activity of paraquat a few “tweaks” can be made in the application. Paraquat applications made in the late afternoon prior to a bright, sunny day appear to enhance the effectiveness of desiccation and tend to increase secondary growth control. Use of non-ionic surfactant (NIS) at a minimum rate of 0.125% or 0.25% volume/volume (v/v), depending on the % concentration of surface-active agent (see individual labels) with paraquat is suggested. It may be necessary to increase the NIS rate to 1% v/v and spray late in the day to effectively desiccate some fields. In most years, PPO inhibitor products such as Aim 2EC, Blizzard, or ET 2.5%EC when applied at higher rates work well to desiccate secondary growth, which is many times difficult to accomplish with paraquat. It may be desirable to include a tank mix of a PPO inhibitor with high NIS rate

with the final paraquat application (see product labels for more information). I wouldn't use crop oil concentrate as the adjuvant when applying a mixture of paraquat and a PPO inhibitor when targeting secondary growth because it will likely antagonize paraquat performance.

Proper spray volume and coverage are also critical to the success of a harvest-aid program. Be sure to calibrate the sprayer to deliver the correct volume and nozzle pressure to ensure adequate distribution and foliage penetration. Read and follow the label directions for use of the product. The harvest-aid label contains information based on many years of testing and results. Avoid applying on windy days to reduce the hazard of spray drift to non-target vegetation. Paraquat is particularly damaging to adjacent small grains, therefore, use the Mesonet's Drift Risk Advisor and apply by ground instead of aerially. Another option is to wait until a terminating freeze to begin harvesting operations. Historical first freeze dates are soon in many areas of Oklahoma.

Harvest aid applications should be timed such that harvestable cotton fields coincide with harvesting capacity of strippers and other equipment. If harvest is initiated too early or delayed too long, bark contamination potential is increased. Generally, a one week "curing out" period is necessary after desiccant application. Harvest as soon as possible after plants are sufficiently conditioned for harvest, but be aware that harvesting too quickly after harvest-aid application may result in barkly grades and/or other quality discounts. Avoid long-term weathering of stalks when possible. Brittle stalks contribute to high stick content in the harvested bur cotton, which results in increased bark potential. Strippers should be adjusted to reduce foreign matter. When necessary, readjust the stripper when moving from field to field or as conditions change.

Many times, rapid desiccation results in dead (or "stuck") leaves remaining on the plants. Stuck leaves must crunch before beginning stripper harvest each day. If these leaves are pliable and intact as a result of moist conditions at harvest, they will be mixed in the stripper with the seedcotton. Then they have potential to be a challenge for removal at the gin. Late in the day, in order to not have the same issue, it may be necessary to shut down harvesting operations when the leaves no longer crunch due to higher humidity levels. A substantial amount of research has been conducted in Texas with respect to stuck leaves. It is important to not violate the "rules." #1. Must strip the cotton dry (i.e. leaves must "crunch" when grasped, do not strip wet), #2. The gin must be able to handle the trash (i.e. must have good drying and lint cleaning capability). Check with your gin to make sure this won't be an issue.

Some producers have fields where "the clock has run out" and no ethephon or ethephon/defoliant harvest aid application has yet been made. In this case, results will likely be better if the application is made when temperatures are on the upswing after a cold front has passed.

Whenever the strippers are adjusted for the field specific conditions, remember that some "tagging" of seedcotton on the plants after harvest may be acceptable, especially

if the amount of foreign material can be reduced by less aggressive stripping. Yield losses can be estimated by measuring 10 feet behind your harvester and collecting the seedcotton. If there is an average of 2.5 seeds per foot behind one row of the harvester unit, then about 4 5 lbs of lint per acre harvest loss is expected. This number is for 40-inch row machines. For 30-inch rows, the number for the same loss is about 1.9 seeds per foot of row.

When harvesting begins and cotton is stored in modules, moisture content of the stripped material must be less than 12 percent. This will ensure that there will be no heating in the module, and that lint staining due to green plant material will be minimized. Cotton is ready to strip when leaves are dry and bolls easily snap off plants. No surface moisture or water droplets (such as dew) should be present.

### **CCC Loan Chart**

Fiber quality is another important component of cotton production. The U.S. industry has struggled with fiber quality components for many years. The “bar” keeps getting moved by the demands of the global textile industry. In order to better understand the underlying fiber quality components and to determine what qualities result in various “Loan values” Plains Cotton Cooperative Association (PCCA) has furnished the Commodity Credit Corporation (CCC) 2011-12 Loan Rate Schedule. If the color grade, leaf grade, staple (length), micronaire, strength, uniformity and extraneous matter (e.g. presence of bark contamination) characteristics are known, then the Loan value can be determined. Please click here for loan rate schedule [2011 Loan Card-PCCA](#).

### **Unwanted Pesticide Collections Sites and Dates**

The next Unwanted Pesticide collections for 2011 funded by the Oklahoma Department Agriculture, Food, and Forestry Department will be held November 15 at the Pontotoc County Fairgrounds in Ada, and November 17 at the Apache Farmers COOP in Apache. Times for the Collections will be 8:00 AM to 1:00 PM at all locations.

For more information please visit the web page at

<http://pested.okstate.edu/unwanted.htm> or contact Charles Luper OSU Pesticide Safety Education Program at 405-744-5808 or Jason Baker ODAFF at 405-522-5993.

This program will take any unwanted pesticides for free up to 2,500 pounds. There will be a \$1.00 per pound (\$2.22/pound for mercury pesticides) charge for any amount over 2,500 pounds. Only pesticides will be accepted. Fertilizers (unless a weed & feed product), waste oil, paints, and any other non-pesticide material will not be accepted.

## Lee Cotton Weigh Wagon

A new tool has been obtained at the Altus Center. It is a Lee weigh wagon. This boll buggy equipped with integral digital scales will enable our group to work directly with producers with their equipment to conduct replicated large plot trials in the future. This can simplify some things such as planting and harvesting operations, as most of our small plot equipment is set for 40-inch rows. This equipment was purchased using grant funds from the Oklahoma Cotton Council with additional support from the Oklahoma Cooperative Extension Service and the Oklahoma Agricultural Experiment Station. We want to thank all involved in helping the Altus Center acquire this important tool to complement our existing equipment. It will be extensively used in the future.



## **Questions about feeding baled cotton plants to cattle**

Due to the extreme drought (and subsequent shortage of hay) there has been an interest in feeding whole (baled) cotton plants to cattle. Driving around the countryside many of you have probably seen cotton fields that have recently been baled. Dr. Larry Redmon, state forage specialist for Texas Agrilife Extension discusses the value of this possibility in a recent article by Blair Fannin in "Agrilife Today." Click on the following link to learn more.

<http://agrilife.org/today/2011/10/21/texas-cattle-producers-exploring-option-of-feeding-whole-cotton-plants/>

Editors

Randy Boman

Shane Osborne

[SEND US A COMMENT BY EMAIL](#)

Contributing Author

Randy Boman

Newsletter is maintained by Jerry Goodson Extension Assistant.

If you would like to be added to the direct mailing please email me at

[jerry.goodson@okstate.edu](mailto:jerry.goodson@okstate.edu)

Randy Boman  
Research Director and Cotton Extension Program Leader  
16721 US Hwy. 283  
Altus, Oklahoma  
(580) 482-2120 office  
(580) 482-0208 fax  
(580) 481-4050 mobile

[randy.boman@okstate.edu](mailto:randy.boman@okstate.edu)

[www.osucotton.com](http://www.osucotton.com)

[www.ntokcotton.org](http://www.ntokcotton.org)

Oklahoma State University in compliance with Title VI and VII of the Civil Rights Act of 1964, Executive Order 11246 as amended, Title IX of the Education Amendments of 1972, Americans with Disabilities Act of 1990, and other federal laws and regulations does not discriminate on the basis of race, color, national origin, sex, age, religion, disability, or status as a veteran in any of its policies, practices, or procedures. This includes but is not limited to admissions, employment, financial aid, and educational services.