



Cotton Comments

OSU Southwest Oklahoma Research and Extension Center
Altus, OK



September 12, 2016

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Crop Update

The September 12 USDA-NASS Crop Report noted a 2016 US upland cotton crop of over 15.6 million bales, about 300,000 bales higher than the August report. The 2016 crop would be about 3 million bales larger than the 2015 crop if the projections are realized. NASS also estimated plantings at 9.95 million upland acres, with harvested area at an estimated 9.4 million acres. This would indicate an abandonment of about 500,000 acres across the US, with most of this occurring in Texas. The national yield per harvested acre was estimated to be 790 lbs/acre. Oklahoma's plantings were 305,000 acres, with harvested acres estimated at 285,000. Harvested acreage in 2015 was 205,000 from 215,000 planted. State average yield was estimated at 960 lbs/acre. NASS is projecting 570,000 bales of production for the state. If we can realize this, it will be up about 200,000 bales compared to the 374,000 bales reported for the 2015 crop. This level of production would also shatter last year's record per acre yield of 874 lbs/acre. So, overall it appears we may be on track to have back to back record yields again in 2016.

The Oklahoma cotton crop has made good to excellent progress in the past several weeks. Irrigated cotton was either somewhat early or on time with respect to cutout during the last half of August. Irrigation in most areas was adequate to meet crop demands. Soil moisture got somewhat short in early August in some areas, but later rainfall has been excellent in many counties. It appears we certainly have a "home run potential" dryland and irrigated crop in many areas.

The main concern for the state's production is the ultimate impact of Bacterial blight on susceptible varieties in mostly irrigated cotton in Jackson and Tillman Counties. There is no doubt that this disease, which was first noted in mid-July, produced significant levels of defoliation in many fields. When inspecting severely impacted fields, it is apparent that a large number of plants were defoliated in the bottom one-third to one-half of the canopy. In some fields, the disease was observed on bolls by late July. Boll lesions triggered considerable boll rot in many fields. Based on visual observations, the leaf loss has likely impacted boll size in the lower portion of the plant, while boll rot has directly reduced yield. Bacterial blight infected bolls may possibly impact fiber quality, particularly color and micronaire.



Impact of Bacterial Blight on Tillman County Irrigated Cotton



**Small Infected Bolls Prematurely Opened by Boll Rot
Caused by Bacterial Blight**

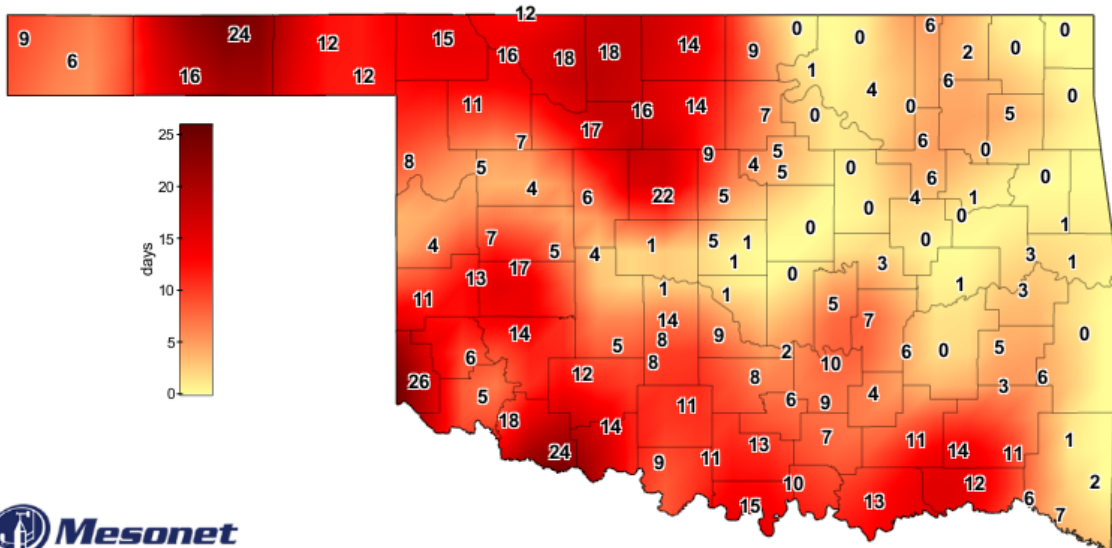


Boll Rot in Bacterial Blight Infected Boll



Locks Destroyed by Boll Rot

July high and low temperatures were very close to normal for the month, and resulted in about 2% above normal cotton heat unit accumulation. High temperatures for August were below normal for about 3 weeks of the month, and low temperatures were below normal for a 10-day run in mid-August. This resulted in cotton heat unit accumulation of about 10% below normal for the month of August. When we look at the number of days in 2016 of 100 degrees or greater, Altus remarkably had only 5 (see Mesonet graphic below).

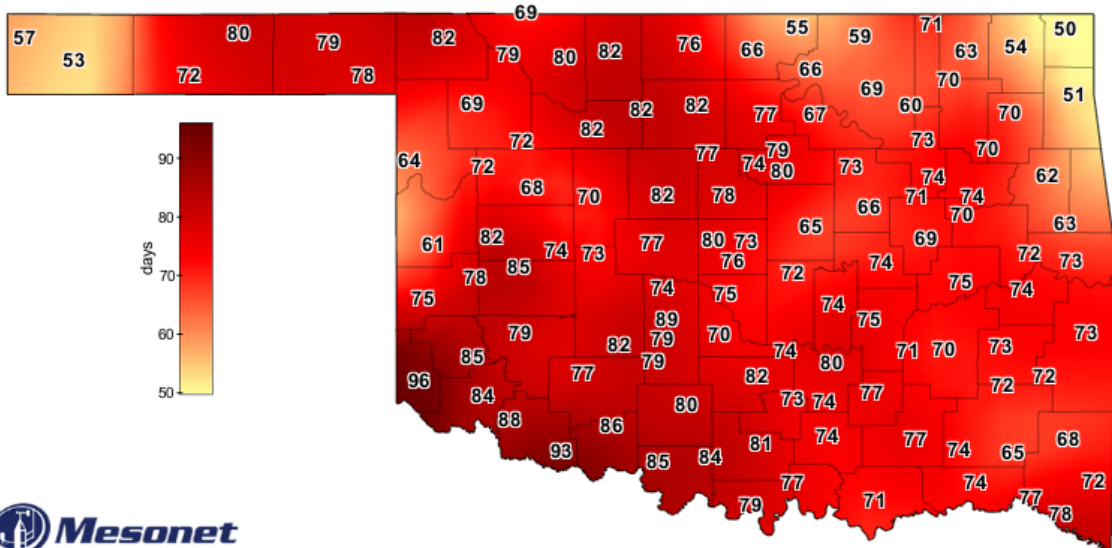


Days With High Temperatures ≥ 100 °F

Warm Season through September 11, 2016

Created 5:25:05 AM September 12, 2016 CDT. © Copyright 2016

For the year, Altus has had 84 days of 90 degrees or greater, while Hollis and Grandfield had 96 and 93, respectively (see Mesonet graphic below).

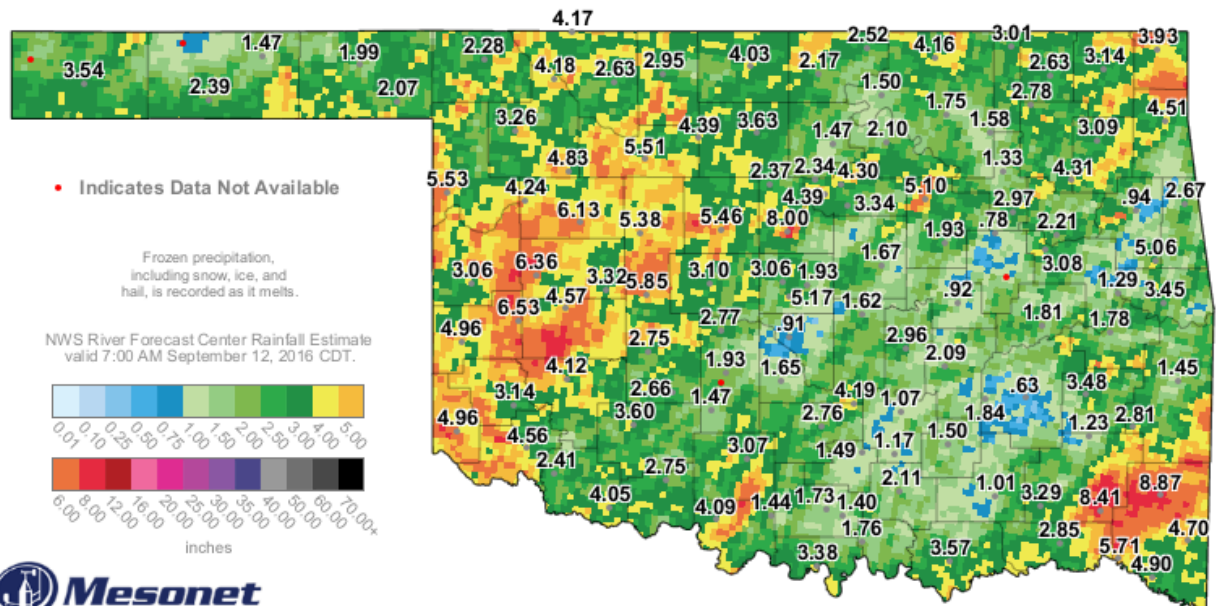


Days With High Temperatures ≥ 90 °F

Warm Season through September 11, 2016

Created 5:25:04 AM September 12, 2016 CDT. © Copyright 2016

September temperatures have been close to normal and good for fiber maturity, while rainfall over the last 30-days has provided beneficial moisture to allow the crop to mature (see 30-Day Rainfall Mesonet graphic below). We are nearing the time for judgment calls to be made with respect to overall crop maturity and harvest aid applications in earlier maturing cotton, and we are seeing open cotton in many fields.



30-Day Rainfall Accumulation (inches)

8:35 AM September 12, 2016 CDT
Created 8:40:26 AM September 12, 2016 CDT. © Copyright 2016

Yield Estimation

This is the time of year when we typically get a lot of phone calls related to cotton yield estimation. This year the most important caveat to using boll counting to estimate yield is how Bacterial blight might potentially impact boll size.

[For a copy of Estimating Cotton Yield Using Boll Counting, click here.](#)

This publication considers several factors such as row spacing, boll size, and two estimated lint percentage levels (35% and 38% picked lint percentages of the SEED COTTON). When looking at several years of boll sizes from drought stressed dryland sites, the 35% picked lint percentage (Table 1), and 2-3 g per boll size are probably appropriate to use. In lower yielding irrigated cotton, the 38% chart (Table 2) and 3-4 g per boll size are probably acceptable. For higher yielding irrigated cotton, the 38% chart (Table 2) and 4-5 g per boll size are likely best. In my opinion, because of boll size, seed set, and other factors, yield estimation should be approached with trepidation, especially in drought years.

Crop Maturity Determination

As we move further toward crop maturity and harvest aid applications, growers are encouraged to assess their fields, and keep an eye on the forecasts. Good temperatures are needed to maximize ethephon based boll opener product effectiveness. Many field weathering studies have indicated the overall value of early harvesting. Delayed harvesting can result in increased leaf contamination, higher bark incidence, shorter staple, reduced fiber uniformity and negative impacts on fiber strength, just to name a few.

Crop maturity determination is critical for a successful harvest-aid program. Premature crop termination has been shown to reduce lint yield, seed quality, micronaire, and fiber strength. Harvest-aid chemicals cannot increase the rate of fiber development. Only additional good growing weather including open skies and adequate heat units combined with functional leaves can mature cotton bolls.

[For a handout that helps explain the rate of crop maturity for the Altus vicinity, click here.](#)

Quick Reference Decision Aid Tables

Many fields are moving rapidly toward sufficient maturity to allow harvest aid application soon. The question remains what to use to bring down this cotton. I've always said that there is more than one way to get cotton harvest ready. What works this year may not work next year. It is very important to learn the strengths and weaknesses of the various products. Use rates, timing, weather, crop condition, etc. are all important for a successful harvest aid program.

A decision aid-table is provided for three projected lint yield levels (less than 500 lb/acre, 500+ lb/acre, and 1000+ lb/acre) and four scenarios (dry with temperatures less than 80 degrees 0-3 days after treatment; dry with temperatures greater than 80 degrees 0-3 days after treatment; and wet with temperatures less than 75 degrees 0-3 days after treatment; and late maturing). **Make sure to read the footnotes at the end of the publication, as they contain important information.** Some products may be more difficult to obtain in the marketplace than others, but these tables are a worthwhile general guide because so many are available.

[Click here for the 2016 Cotton Harvest Aid Decision Table](#)

Cotton Incorporated Harvesting Publications

Several publications have been generated by Cotton Incorporated in cooperation with a team of harvest engineers and agronomists. These include stripper harvesting, picker harvesting and seed cotton storage (module building). There is a huge amount of relevant information in these publications and they should not be overlooked.

Click for:

[Stripper Harvesting](#)

[The Spindle-Type Cotton Harvester](#)

[Seed Cotton Handling and Storage](#)

Also, more information concerning cotton harvesting and economics of the two harvester types can be found on the Cotton Incorporated Website at:

[Click here for Cotton Inc - Cotton Harvest Cost Comparison Program/Decision Aid](#)

Lint Contamination – Continued Focus on Prevention

Two of the most important selling points of U.S. cotton in the export market include high quality fiber with minimal fiber contamination. The industry has worked hard over the past several decades to assure mills that we can provide them with fiber to meet their demands. Recently, I received a flyer from the National Cotton Council which discusses the importance of keeping this issue on the “front burner” with several segments of the industry. The ultimate goal is “contamination free” cotton. The paragraph below provides some of the discussion provided in the flyer:

Keeping cotton “contamination free” remains a high priority goal for the U.S. cotton industry. The National Cotton Council (NCC) is reaching out to growers, ginner and warehouse with the message about the critical importance of keeping U.S. cotton clean and pure. Please note that additional contamination prevention materials can be found on the NCC Quality Preservation web page.

For more information, click here: <http://www.cotton.org/tech/quality/index.cfm>

[To download a copy of the flyer, click here.](#)

RB

Upcoming Meetings

September 13 10:00 a.m. Americot/NexGen Field Meeting, Barry Mock Farm, 8 miles south of Altus on Hwy 283, 1 mile east on CR 1720 and 0.5 mile south on CR 2050. For more information contact Darren Butchee at 580-481-0971.

September 15 10:00 a.m. Americot/NexGen Field Day, Agrisearch Farm, 4 miles west of Edmonson, TX. For more information contact Jerry Montgomery at 806-577-8011.

September 21 10:00 a.m. Dow AgroSciences Enlist Cotton and PhytoGen Variety Field Tour, OSU Southwest Research and Extension Center, 3 miles south of Altus on Hwy 283. Lunch and CEUs provided. [For an informational flyer, click here.](#)

September 22 – Caddo Research Station Tour, peanut and cotton research and industry updates. Hull blasting begins at 4:00 p.m., research tour starts at 5:30 p.m., dinner served after field tour.

Peanut Hull Blasting – Maturity Assessment

Peanut Breeding and Variety Performance, Kelly Chamberlin and
Rebecca Bennet, USDA/ARS

Peanut Disease Management, John Damicone, OSU

Peanut Weed Management, Todd Baughman, OSU

Cotton Agronomy, Variety Performance, and Enlist Cotton, Randy Boman, OSU

September 22 10:00 a.m. Deltapine Field Day, Rackler Drip Farm, Levelland (11 miles west of Levelland on TX 114, 2 miles north on FM 303). 11 a.m., lunch served. Contact Eric Best at 806-790-4646.

September 27 8:30 a.m. The Carnegie Co-op Gin will host their Fall Cotton Tour and lunch at the Merlin Schantz Farm Headquarters, 3 miles north of Hydro on Hwy 58, 1 mile west, then 0.3 miles south on County Road 2470. For more information contact Jeannie Hileman at the Carnegie Co-op Gin at 580-330-0398.

September 29 – Jackson/Greer/Harmon Counties Cotton Tour

8:00 a.m. Drip irrigated Cotton Incorporated Enhanced Variety Trial and dryland RACE Trial near Altus (Abernathy Farm);

10:30 a.m. Irrigated RACE and PhytoGen Innovation Trial (with Enlist cotton entries) near Duke (Drew Darby Farm);

2:00 p.m. Drip irrigated XtendFlex RACE Trial near Hollis (Tony Cox Farm).

For more information, contact Gary Strickland, Jackson County Extension Educator at 580-482-0823; or Charity Martin, Harmon County Extension Educator at 580-688-3584.

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