



Cotton Comments

OSU Southwest Oklahoma Research and Extension
Center Altus, OK



July 2, 2020

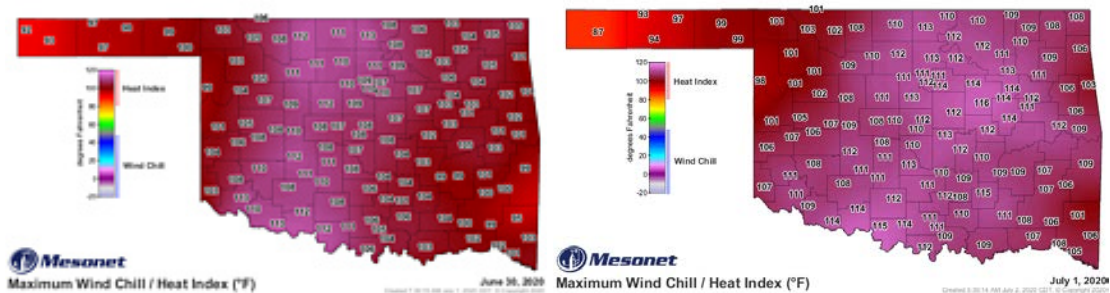
Volume 10 No. 7

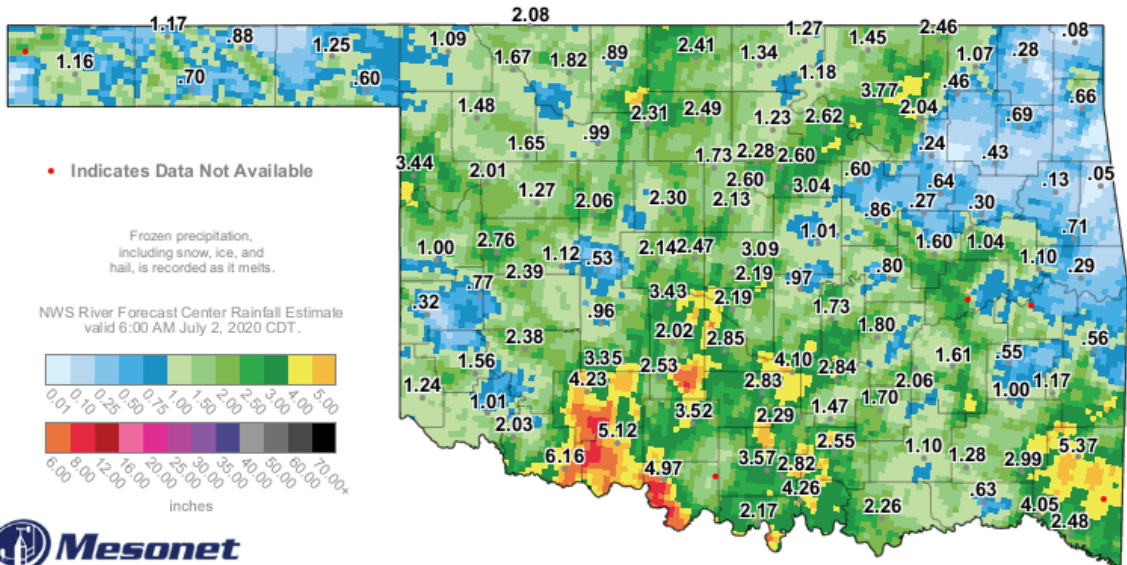
Current Situation

Excessive heat has occurred across the state with sustain winds over 30 mph, even with these harsh conditions this year crop has on the whole continues to develop at above average pace. Moisture is becoming a concern with more fields receiving irrigation and others about to experience its first irrigation. Dryland fields desperately need a rain within the next 7 days or lost yield potential will occur. Emergence problems have occurred in late planted dryland due to limited moisture also emergence problems in heavy residue with more than adequate moisture.

Fleahopper control sprays continue across the state with some fields receiving a second control application. Please refer to [Cotton Comments Volume 10 edition 5 June 4, 2020 \(click here\)](#) for a discussion on the Cotton Fleahopper. Grasshoppers populations continue to cause plant lose in some fields. Also False chinch bugs have been reported. No other pest have been reported.

After emergence scouting of the field must start and continue on a weekly basis until termination of the crop.





14-Day Rainfall Accumulation (inches)

6:55 AM July 2, 2020 CDT
Created 7:00:53 AM July 2, 2020 CDT. © Copyright 2020

Next Seven Days

Weather Forecast Office
Norman, OK
Issued Jul 2, 2020 4:49 AM CDT

Forecast

Thu

up to 60%
ELEVATED

Fri

20-30%
LOW

Sat

20-40%
LOW

Sun

20-40%
LOW

Mon

20-30%
LOW

Tue

20%
LOW

Wed

LOW

Impacts

**Dangerous Heat;
Strong to Severe Storms
Afternoon & Evening**

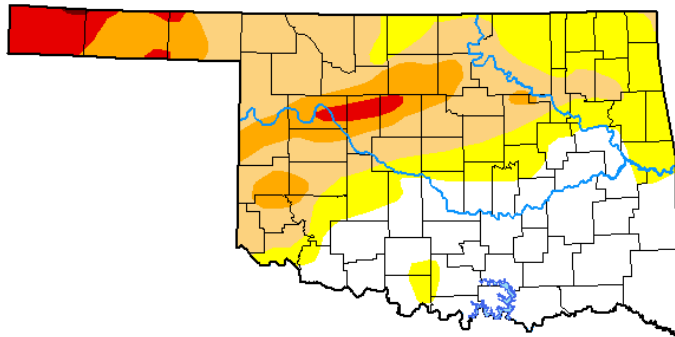
| | Thu | Fri | Sat | Sun | Mon | Tue | Wed |
|----------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| PM Highs | 97 WWR 94 OKC | 94 WWR 95 OKC | 92 WWR 93 OKC | 89 WWR 92 OKC | 90 WWR 91 OKC | 93 WWR 93 OKC | 96 WWR 94 OKC |
| | 99 SPS 96 DUA | 98 SPS 98 DUA | 97 SPS 95 DUA | 95 SPS 94 DUA | 96 SPS 93 DUA | 94 SPS 93 DUA | 96 SPS 93 DUA |
| AM Lows | 72 WWR 76 OKC | 70 WWR 73 OKC | 71 WWR 72 OKC | 70 WWR 71 OKC | 69 WWR 71 OKC | 70 WWR 72 OKC | 72 WWR 73 OKC |
| | 77 SPS 76 DUA | 74 SPS 75 DUA | 73 SPS 74 DUA | 73 SPS 73 DUA | 74 SPS 73 DUA | 73 SPS 74 DUA | 74 SPS 74 DUA |

@NWSNorman

weather.gov/norman

U.S. Drought Monitor Oklahoma

June 30, 2020
(Released Thursday, Jul. 2, 2020)
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

| | None | D0-D4 | D1-D4 | D2-D4 | D3-D4 | D4 |
|--|-------|-------|-------|-------|-------|------|
| Current | 34.87 | 65.13 | 43.03 | 15.39 | 4.46 | 0.10 |
| Last Week <i>06-23-2020</i> | 43.25 | 56.75 | 34.75 | 13.95 | 4.26 | 0.00 |
| 3 Months Ago <i>03-31-2020</i> | 95.89 | 4.11 | 2.52 | 0.84 | 0.00 | 0.00 |
| Start of Calendar Year <i>12-31-2019</i> | 76.45 | 23.55 | 10.47 | 3.64 | 0.00 | 0.00 |
| Start of Water Year <i>10-01-2019</i> | 71.94 | 28.06 | 11.08 | 1.01 | 0.00 | 0.00 |
| One Year Ago <i>07-02-2019</i> | 99.98 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 |

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

Author:

Adam Hartman
NOAA/NWS/NCEP/CPC



droughtmonitor.unl.edu

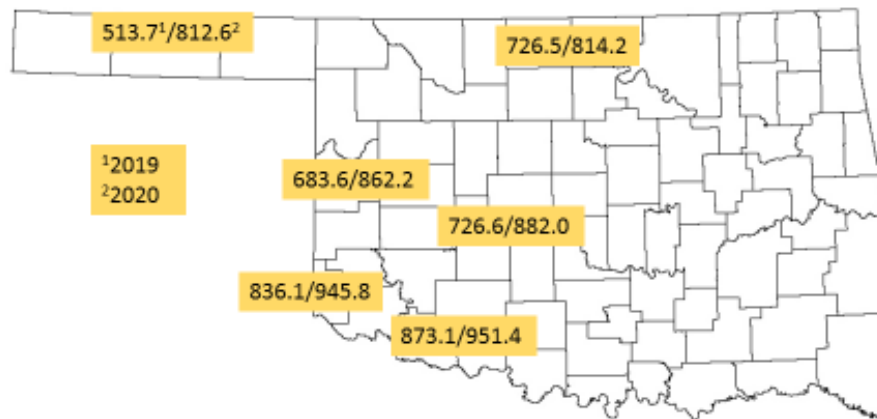
Growing degree days

Cotton Growth Timetable

| <u>Stage of Growth</u> | <u>GDD</u> | <u>Days</u> |
|------------------------|-------------|-------------|
| Emergence | 50 - 60 | 3 - 4 |
| Pinhead Square | 425 - 500 | 25 - 45 |
| First Bloom | 725 - 825 | 41 - 67 |
| Open Boll | 1575 - 1925 | 102 - 127 |
| Defoliation | 2150 - 2300 | 120 - 140 |

2020 Growing Degree days for select locations May 1 to July 1

State wide average 95.37 more degrees units 2020 compared to 2019



To calculate growing degree days for specific fields and planting dates please click here: [Oklahoma Mesonet Degree Heat Unit Calculator-Cotton](#)

The standard calculation for cotton DD60 heat units is:

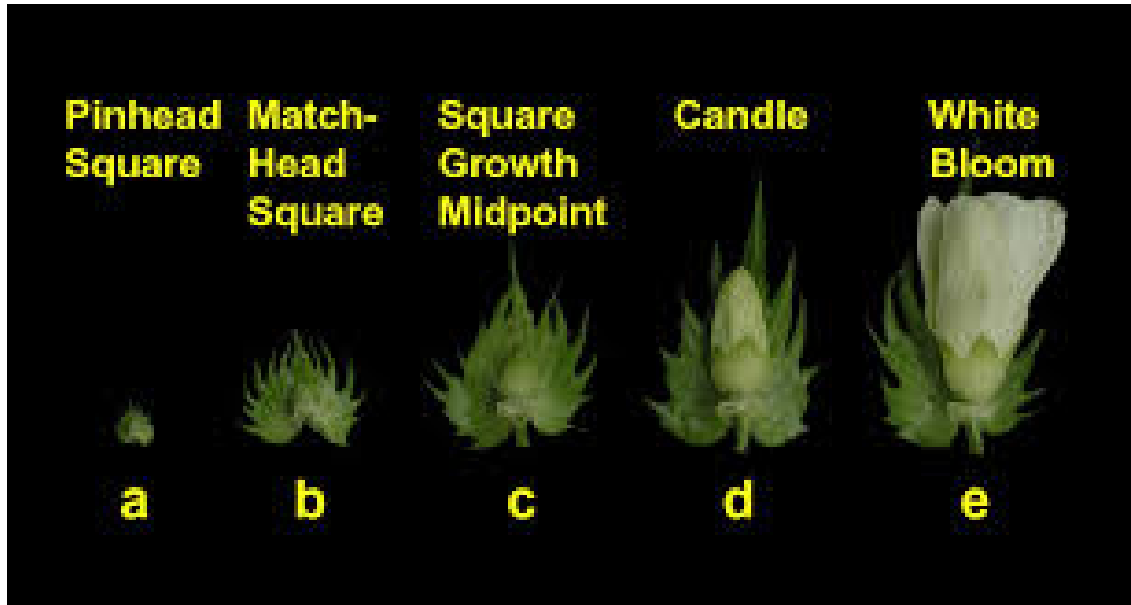
$((\text{maximum air temperature, } F^{\circ} + \text{minimum air temperature, } F^{\circ}) / 2) - 60 = \text{DD60 heat units}$

Essentially, the average air temperature for the day is determined and the 60 degree F° developmental threshold for cotton is subtracted. The DD60s for each day are then totaled.

Oklahoma State University Field Surveys

This office conducts field surveys in six counties (Jackson, Caddo, Greer, Harmon, Tillman and Washita) on a weekly basis. These include producer fields, Extension trials, official variety test sites in southwestern Oklahoma. These fields have different planting dates and varieties with various traits. The plant stage varies as of July 1, 2020 from cotyledon to matchhead squares.

The most dominant plant stage as of July 1 for these trials: **MATCHHEAD SQUARES**



Courtesy of Texas A&M AgriLife

The cotton pest of most concern as of July 1 for these trials: **Cotton Fleahopper**



Courtesy of Texas A&M AgriLife



What if Engenia®, FeXapan® or Xtendimax® are not an Option for Cotton Weed Control?

EXTENSION

June 2020

Todd Baughman
Weed Science Extension Specialist

Misha Manuchehri
Weed Science Extension Specialist

Seth Byrd
Cotton Extension Specialist

Recently the 9th Circuit Court vacated the labels for Engenia®, FeXapan® and Xtendimax® in cotton. What does that mean?

In Oklahoma, as it currently stands, existing stocks of Engenia®, FeXapan® and Xtendimax® may be applied to Roundup® Ready Xtend cotton and soybean through July 31, 2020.

What are my options if I haven't already purchased dicamba or need to make an application after July 31st?

Currently the following products are labeled for over-top applications in Roundup® Ready XtendFlex cotton:

- Tavium®
- Liberty® and Roundup® (glyphosate)
- Staple®
- Dual Magnum® (metolachlor), Outlook® and Warrant®
- Assure II®, Fusilade® DX, Poast® and Select® (clethodim)

Tavium® is a premix of dicamba and metolachlor. It was not included with the 9th Circuit Court ruling because it was not labeled at the time of the case filing. It is the only dicamba formulation that currently has a federal label. Tavium® has the added benefit of including metolachlor for additional residual weed control. Depending on the weed spectrum in your area, it may be beneficial to include glyphosate with this herbicide. Controlling small weeds will still be important for success with this herbicide. Special precautions and label restrictions apply to Tavium®. Tavium® can be applied through the 6th leaf growth stage or within 60 days after planting, whichever comes first. The postharvest interval on cotton is 100 days prior to harvest.

Liberty® and Roundup® (glyphosate) are non-selective herbicides that have activity on a wide range of weeds including both broadleaves and grasses. The current issue with Roundup® is the number of fields that have weeds resistant to this herbicide. However, there are many weeds in cotton (especially grasses) that are still controlled by Roundup®. Timing is critical on all weed species with Liberty® especially with pigweed and grasses. Pigweeds need to be 4 inches or less and grasses 3 to 8 inches for most species. Inadequate control has been consistently observed when applications are made to larger weeds. Some evidence has been seen that a tank-mix combination of these herbicides can be effective where resistant pigweed or larger weeds occur.

Oklahoma Cooperative Extension Fact Sheets are also available on our website at:
extension.okstate.edu

A second application of Liberty® or Liberty® + Roundup® 10 to 14 days after the initial application may be beneficial as well.

For cotton growers who have enough Engenia®, FeXapan® or Xtendimax® on hand for one application — consider applying Liberty® first to small emerged weeds and following with a later application of dicamba. This will only work if applications of Liberty® are made to small weeds (less than 4 inches) and applications are made to achieve thorough coverage of these small weeds.

Staple® herbicide has activity on several broadleaf weeds in Oklahoma. Additionally, it provides postemergence as well as residual weed control on several of these weeds. Timing based on weed size is extremely important for postemergence weed control with Staple®. Many weeds require applications to be made prior to the weed being greater than 2 inches in height. Staple is also ineffective on ALS-resistant weeds. In some areas this includes Palmer pigweed.

Dual Magnum® (metolachlor), Outlook® and Warrant® herbicides can be applied after cotton is up, but will not control any emerged weeds at the time of application. These herbicides only control weeds that have not emerged at the time of application. Additionally, these herbicides require an activating rainfall or irrigation to move the herbicide into the soil profile to control weeds that are not emerged. These products provide residual weed control if they are tank-mixed with an effective postemergence herbicide or are applied before the next flush of weeds occur. Considering the current supply restrictions on dicamba it would likely be a good idea to tankmix one of these herbicides with any existing dicamba products or one of the other postemergence herbicides.

Assure II®, Fusilade® DX, Poast® and Select® (clethodim) will control most grass species when applied postemergence. These herbicides do not provide any activity on broadleaf weeds like pigweed. Size of grass control will vary by species and herbicide applied. However, with the exception of rhizome Johnsongrass control is generally better on grasses less than 6 inches in size.

There are several options that can be applied either post-directed or through a hooded application. Cultivation or hand weeding is a final option to control troublesome weed escapes in cotton.

Consult all herbicide labels for restrictions, weed size, crop stage, use rates, tank mix partners and herbicide adjuvants needed. It is also important to read labels for preharvest and crop rotation intervals.

Oklahoma State University, as an equal opportunity employer, complies with all applicable federal and state laws regarding non-discrimination and affirmative action. Oklahoma State University is committed to a policy of equal opportunity for all individuals and does not discriminate based on race, religion, age, sex, color, national origin, marital status, sexual orientation, gender identity/ expression, disability, or veteran status with regard to employment, educational programs and activities, and/or admissions. For more information, visit <https://eeo.okstate.edu>.

Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Director of Oklahoma Cooperative Extension Service, Oklahoma State University, Stillwater, Oklahoma. This publication is printed and issued by Oklahoma State University as authorized by the Vice President for Agricultural Programs and has been prepared and distributed at a cost of 20 cents per copy. June/2020 GH.



What if Engenia®, FeXapan® or Xtendimax® are Not an Option for Soybean Weed Control?

EXTENSION

June 2020

Todd Baughman
Weed Science Extension Specialist

Misha Manuchehri
Weed Science Extension Specialist

Oklahoma Cooperative Extension Fact Sheets
are also available on our website at:
extension.okstate.edu

Recently the 9th Circuit Court vacated the labels for Engenia®, FeXapan® and Xtendimax® in soybean. What does that mean?

In Oklahoma, as it currently stands, existing stocks of Engenia®, FeXapan® and Xtendimax® may be applied to Roundup® Ready Xtend cotton and soybean through July 31, 2020.

What are my options if I haven't already purchased dicamba or need to make an application after July 31st?

Currently the following products are labeled for over-top applications in Roundup® Ready Xtend soybean:

- **Tavium®**
- **Roundup® (Glyphosate)**
- **Cadet®, Cobra®, ET®, Reflex® (fomesafen), Resource® and UltraBlazer®**
- **Classic®, FirstRate® and Pursuit®**
- **Assure II®, Fusilade® DX, Poast® and Select® (Clethodim)**

Tavium® is a premix of dicamba and metolachlor. It was not included with the 9th Circuit Court ruling because it was not labeled at the time of the case filing. It is the only dicamba formulation that currently has a federal label for use in Xtend crops. Tavium® has the added benefit of including metolachlor for additional residual weed control. Depending on the weed spectrum in your area, it may be beneficial to include glyphosate with this herbicide. Controlling small weeds will still be important for success with this herbicide. Special precautions and label restrictions apply to Tavium® as with the other dicamba formulations. Tavium® can be applied over-the-top through the V4 growth stage or within 45 days after planting, whichever comes first. The preharvest interval on cotton is 100 days prior to harvest. No applications can be made to double crop soybeans.

Roundup® (glyphosate) is a non-selective herbicide that has activity on a wide range of weeds including both broadleaves and grasses. The current issue with Roundup® is the number of fields that have weeds resistant to this herbicide. However, there are many weeds currently in soybeans

(especially grasses) still controlled by Roundup®. Therefore, this may still be an effective tank mix partner with other post-emergence herbicides.

Cadet®, Cobra®, Reflex® (fomesafen), Resource® and UltraBlazer® herbicides (PPO) have activity on many problem broadleaf weeds in Oklahoma. Prior to introduction of Xtend soybean, these were the backbone products for control of glyphosate and ALS resistant weeds in Roundup® Ready soybean. Controlling small weeds (2 to 4 inches) is critical to the success of these herbicides, especially pigweed. Reflex is the only one of these products with significant residual activity. Future rotational crops should be considered when using Reflex®.

Classic®, FirstRate® and Pursuit® herbicides (ALS) have activity on several broadleaf weeds in Oklahoma. These herbicides provide postemergence as well as residual weed control on several weeds. Timing based on weed size is extremely important for postemergence weed control with ALS herbicides. Many weeds require applications to be made prior to 2 inches in height. The biggest weakness is ALS-resistant weeds including Palmer pigweed and tall waterhemp.

Assure II®, Fusilade® DX, Poast® and Select® (clethodim) will control most grass species when applied postemergence. These herbicides do not provide any activity on broadleaf weeds like pigweed. Size of grass control will vary by species and herbicide applied. However, except for rhizome Johnsongrass, control is generally better on grasses less than 6 inches in size.

Producers who have not planted soybeans yet may want to reevaluate their current preemergence program. A preemergence herbicide program that contains two or three different active ingredients may be the most effective option this year. Additionally, growers may want to consider adding a residual herbicide to their postemergence applications to improve season-long control.

Consult all herbicide labels for restrictions, weed size, crop stage, use rates, tank mix partners and herbicide adjuvants needed. It is also important to read labels for preharvest and crop rotation intervals.

Oklahoma State University, as an equal opportunity employer, complies with all applicable federal and state laws regarding non-discrimination and affirmative action. Oklahoma State University is committed to a policy of equal opportunity for all individuals and does not discriminate based on race, religion, age, sex, color, national origin, marital status, sexual orientation, gender identity/ expression, disability, or veteran status with regard to employment, educational programs and activities, and/or admissions. For more information, visit <https://eeo.okstate.edu>.

Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Director of Oklahoma Cooperative Extension Service, Oklahoma State University, Stillwater, Oklahoma. This publication is printed and issued by Oklahoma State University as authorized by the Vice President for Agricultural Programs and has been prepared and distributed at a cost of 20 cents per copy. June/2020 GH.

Please click here to start video

[Dicamba Use and Early Season Cotton Update](#)

Oklahoma Boll Weevil Eradication Organization

New web page address click here: [OBWEO](#)

Brenda Osborne, Director of the Oklahoma Boll Weevil Organization, based at Altus, provided the information below. Eradication of the boll weevil across most of the U.S. Cotton Belt, and in the state has been very successful and is a major contributing factor to the continued profitability of cotton production. It has been a long, difficult, and expensive task to rid our state and most of the Cotton Belt of this invasive species that for such a long time negatively impacted our production. Since 1998 the producers of Oklahoma has spent over **thirty seven million** dollars to eradicate and provide a maintenance program.

Cotton acres for the past five years

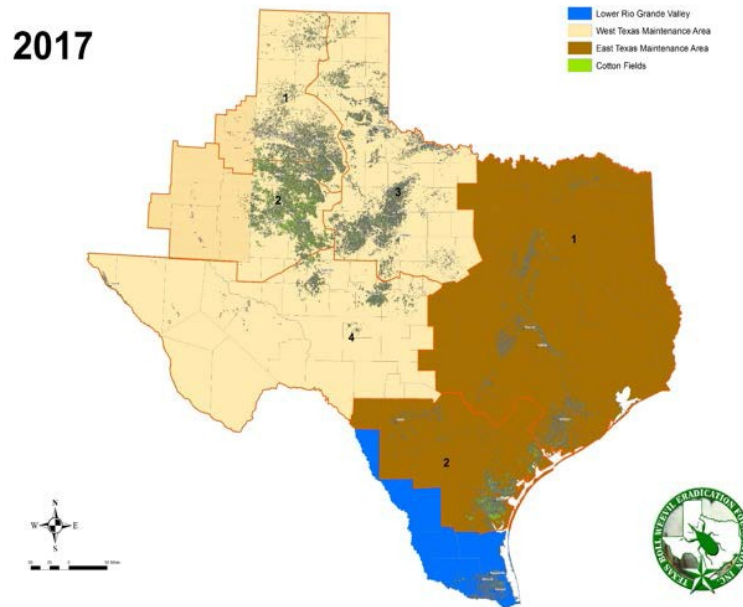
| Year | Acres ¹ |
|------|--------------------|
| 2015 | 216,678 |
| 2016 | 299,302 |
| 2017 | 568,434 |
| 2018 | 756,397 |
| 2019 | 603,014 |

¹ Oklahoma Boll Weevil Eradication Organization

OBWEO is preparing for the upcoming 2020 cotton season. It is our responsibility to ensure the continued success of this program. If you have been growing cotton for the past 3-5 years, we know where those fields are located. ***However, if you are a new producer or have not grown cotton in several years, we need you to provide the legal descriptions of these new cotton fields.***

There is a Boll Weevil Assessment for harvested cotton acres. The current assessment is \$2.50 per harvested acre. This assessment is reviewed annually. The trapping density this year is one trap per 640 acres. In areas where planted cotton acreage density is high, not all fields will actually have a trap near it. In other areas that are more isolated, each field will need a trap.

There is still a difficult fight with this insect pest in south Texas, and we all need to do our part in keeping this pest from resurfacing in our state. Cotton harvesting equipment entering Oklahoma from two eradication areas in Texas has to be certified as boll weevil free prior to movement into our state. Please contact TBWEF before departure from these two areas. This will allow TBWEF to inspect the equipment. A USDA-APHIS phytosanitary certificate is issued and is required before equipment can be transported from these areas. These ONLY include the Lower Rio Grande Valley Eradication Zone (blue area on the map below) or the East Texas Maintenance Area (brown area on the map below). This is critical to meet USDA- APHIS requirements and prevent the re-infestation of boll weevils into eradicated areas. It is illegal to move non-certified cotton harvesting equipment from these areas into the state of Oklahoma.



Texas Boll Weevil Eradication Foundation: 325-672-2800
After Hours and Weekends: 325-668-7361

Contact John Lamb at the Frederick office at 580-335-7760 or cell 580-305-1930 for the following counties: Tillman, Cotton, Comanche, Atoka, Bryan, and Stephens.

Contact Brenda Osborne at the Altus office at 580-477-4287 or cell 580-471-79632 for all other counties.

The Cotton Comments Newsletter is maintained by Jerry Goodson, Extension Assistant. If you would like to receive this newsletter via email, send a request to:

jerry.goodson@okstate.edu

Jerry Goodson
Extension Assistant
16721 US Hwy. 283
Altus, Oklahoma
(580) 482-8880 office
(580) 482-0208 fax

www.cotton.okstate.edu

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.