



# Cotton Comments

OSU Southwest Oklahoma Research and Extension Center  
Altus, OK

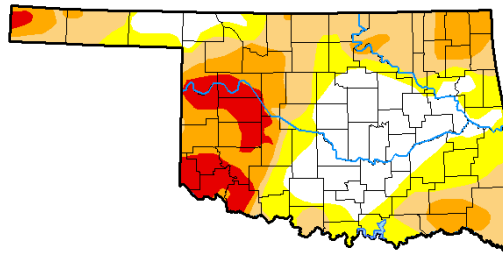


July 12, 2018

Volume 8 No.6

## 2018 Current Situation

### U.S. Drought Monitor Oklahoma



July 10, 2018  
(Released Thursday, Jul. 12, 2018)  
Valid 8 a.m. EDT

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	26.26	73.74	51.69	26.91	8.81	0.00
Last Week 07-03-2018	23.25	76.75	54.55	27.49	8.51	0.40
3 Months Ago 04-10-2018	41.72	58.28	47.44	42.07	34.85	18.35
Start of Calendar Year 01-02-2018	0.00	100.00	77.15	38.76	0.00	0.00
Start of Water Year 09-26-2017	64.48	35.54	0.77	0.00	0.00	0.00
One Year Ago 07-11-2017	63.70	36.30	12.04	0.00	0.00	0.00

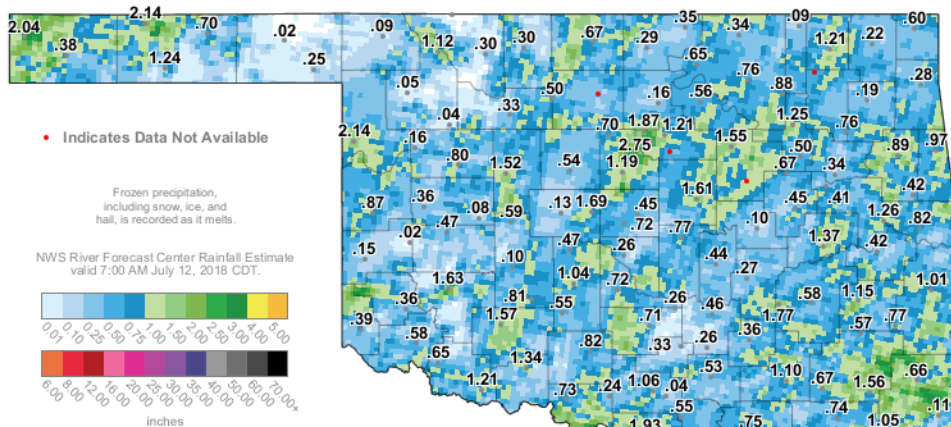
**Intensity:**  
■ D0 Abnormally Dry    ■ D3 Extreme Drought  
■ D1 Moderate Drought    ■ D4 Exceptional Drought  
■ D2 Severe Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

**Author:**  
Brian Fuchs  
National Drought Mitigation Center



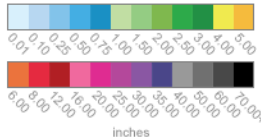
<http://droughtmonitor.unl.edu/>



• Indicates Data Not Available

Frozen precipitation, including snow, ice, and hail, is recorded as it melts.

NWS River Forecast Center Rainfall Estimate valid 7:00 AM July 12, 2018 CDT.



14-Day Rainfall Accumulation (inches)

8:40 AM July 12, 2018 CDT

Created 8:45:48 AM July 12, 2018 CDT. © Copyright 2018

The 2018 drought continues, rainfall over the past 14 days has not been sufficient to alleviate this situation. The seven day forecast has little to no chance of rain. Hopefully this will change.

## Crop Update

The crop as of this week seems to be of two opposite conditions either 'real good' or 'real bad'. It is encouraging as the season progressive more fields have turn the "corner" and is starting developing normally. In rain dependent fields moisture concerns continue and rainfall will be needed in the near future.

Insect pressure is still low. Low Fleahoppers numbers are still the norm with few secondary pest showing up. Spider mites have detect in Tillman County (Jerry Stoll , consultant) stinkbugs in our northern counties have been found (Dr. Seth Byrd) a small number of lygus has been observed in Jackson County (Rick Netherton, manager Heinen Brothers Aerial & Agronomy Services Altus). Rest of the state does not report anything out of the normal.

I cannot stress enough *scouting of the field must be on a weekly basis until termination of the crop.*

## Lygus



Photos courtesy of UC Davis

With the report of Lygus in the state and more cotton in non-traditional areas a discussion on Lygus may be useful.

Lygus although far less numerous than cotton fleahoppers are a growing concern of late due to less chemical applications because of transgenic Bt cotton and boll weevil eradication. Economic infestations in Oklahoma have not yet been noted by Extension personnel.

Lygus or plant bugs are small insects that 0.25 inch long and 0.1 inch wide, and flattened on the back. They vary in color from pale green to yellowish brown with reddish brown to black markings, and have a conspicuous triangle in the center of the back.

Texas A&M AgriLife Research and Extension personnel have identified three species of lygus that are predominate in cotton in this region: the western tarnished plant bug, the tarnished plant bug and the pale legume plant bug. It is normally not necessary to distinguish between these species in making management decisions.

Plant bugs feeds on many alternate hosts such as alfalfa and other legumes, butterweed, fleabane, goldenrod, aster, and dog fennel. When the weed host becomes unsatisfactory for feeding purposes, plant bugs usually migrate to cotton fields. The average time to complete the life cycle is 50 days in summer. Plant bugs can generate four to seven generations in one season.

Development time of each stage varies with temperature. Under normal temperatures this is about 7 days for eggs, 7 days for small nymphs (instars 1–3), and 7 days for large nymphs (instars 4 and 5).

Plant bugs feed by inserting mouthparts into terminals, squares, and other tissues, and by sucking the juices out. Injured squares usually turn dark and drop off, while damaged bolls may develop abnormally.

Control of Lygus, although rare in Oklahoma, must be carefully considered because of the destruction of beneficial insects that could cause outbreaks of other pests especially cotton aphids. Texas A&M AgriLife Extension at Lubbock has provided a threshold table.

<b>Lygus Action Threshold</b>		
	<b>Sampling method*</b>	
<b>Cotton stage</b>	<b>Drop cloth</b>	<b>Sweep net</b>
1st two weeks of squaring	1-2 per 6 ft-row with unacceptable square set	8 per 100 sweeps with unacceptable square set
3rd week of squaring to 1st bloom	2 per 6 ft-row with unacceptable square set	15 per 100 sweeps with unacceptable square set
After peak bloom	4 per 6 ft-row with unacceptable fruit set the first 4-5 weeks	15- 20 per 100 sweeps with unacceptable fruit set first 4-5 weeks

\*Sweep net – standard 15-inch net, sample 1-row at a time taking 15-25 sweeps. Recommended before peak bloom.

Drop cloth – black is recommended; 3-ft sampling area, sample 2-rows. Recommended after peak bloom.

Cease sampling and treating when NAWF = 5+ 350 DD60's.

If one encounters a lygus population above economic thresholds the same precautions should be considered as those for cotton fleahopper control. Also, damage occurring with the presence of lygus does not necessarily mean chemical control is warranted. Based on research conducted in the Texas High Plains by Dr. David Kerns, Orthene, Vydate, Carbine, and pyrethroids could be considered. He suggested not to use pyrethroids if aphids are present because of threat of aphid flareup. Orthene at 0.75-1.0 lb/acre will provide excellent control. If aphids or mites are present Carbine may be used since it can provide effective control and is easy on most beneficial arthropods. Vydate at 13-17 oz/acre performed well in his trials.

### Phenoxy Damage



Early season phenoxy herbicide damage in cotton.

Reports of severe phenoxy herbicide damage has occurred in several counties of Oklahoma. Contrary to “coffee shop talk” not all cotton varieties are immune from phenoxy. Pasture and wheat applications that go off target are still responsible for the damage that occurs. The use of non-labeled chemicals on phenoxy tolerant varieties is just as lethal. Oklahoma State staff can advise that damage has occurred and certain options on how the crop can be managed after the event but ALL regulatory and investigation procedures are with Oklahoma Department of Agriculture and Forestry.

Yield effects from this type of damage are difficult to quantify. The amount of injury is rate dependent, but any injury can cause a delay in blooming. If the maturity is delayed substantially, a significant negative impact on yield is usually observed. If this happens to an already late planted crop, it can be disastrous if an early freeze is encountered. Many times phenoxy herbicide injury in cotton can be from a single “drift event”. If so,

then the new leaves in the terminal will not show continued damage (“leaf strapping”) and fruit development may not be ruinously interrupted. Fields that experience high single dose events or multiple sustained doses of phenoxy herbicide over time (perhaps from multiple “drift events”) may have “leaf strapping” and fruiting impact for several weeks. Yield reduction will be significant in this scenario. The only thing that can be done is to manage the crop as best as possible and watch the fruit retention. This is a difficult situation, and each field (or even areas of a field) can be different based on the nature of the drift event, cotton growth stage, future growth potential (soil moisture level), etc.

Critical observations include:

- 1) When will the oldest remaining unaffected squares potentially bloom?  
(what calendar date)
- 2) What is the square retention on the plants?
- 3) What is the last effective bloom date (calendar date) to produce a reasonably mature boll for the area?
- 4) What is the soil moisture level?  
(to drive yield potential).

If your field is damaged the following is from the Oklahoma Department of Agriculture and Forestry. <http://www.oda.state.ok.us/cps/pesticidecomplaints.htm>. Also a spray drift brochure has been created. Click here [Oklahoma Spray Drift Risk brochure](#).

## **Pesticide / Herbicide Complaint Procedure**

The Oklahoma Department of Agriculture is the lead state agency for regulating pesticides. This responsibility includes investigating complaints of alleged pesticide / herbicide misuse. Typical complaints concern termite treatments, drift from lawns, right-of-way or agricultural applications.

### **How to File a Complaint**

Anyone wishing to file a complaint needs to complete the (click on following to download) [PESTICIDE COMPLAINT STATEMENT](#) and submit it to Mike Vandeventer. Once the complaint is received it will be given a complaint number and assigned to a field inspector. You will receive confirmation that the complaint was received with the name of the inspector and the complaint number.

### **The Investigation**

The inspector will contact you within the next three to four days to schedule the inspection. The inspection will include a narrative report, photos and samples as needed to document a misuse or violation. The inspector does not estimate monetary losses that may have occurred as a result of the incident. He will also try to identify any possible source or cause.

All possible sources will be contacted to determine if they were involved or not. Once the investigation is completed by the Compliance Administrator you will be notified of the final action taken.

### **Copies of the Report**

The investigation report is subject to the Oklahoma Open Records Act. A copy of the report will be provided upon written request. Requests should reference the complaint number and be sent to:

Office of General Council  
Oklahoma Department of Agriculture, Food & Forestry  
Pesticide Compliance Administrator  
2800 N. Lincoln Blvd.  
Oklahoma City, OK 73105

The following is the use of certain chemicals in Oklahoma restricted zone.  
Thanks to Mike Vandeventer for providing this information.

### **35:30-17-24.1. Restricted use areas**

(a) Applications of products containing 2,4-D esters or dicamba as an active ingredient to agricultural lands shall not be made in Greer, Harmon, and Kiowa counties between 12:01 a.m. of May 1 of each calendar year through 11:59 p.m. of October 15 of each calendar year except in accordance with the provisions of this section.

(b) Applications of products containing 2,4-D, dicamba, picloram, triclopyr, or clopyralid as an active ingredient to agricultural lands shall not be made in Jackson and Tillman counties between 12:01 a.m. of May 1 of each calendar year through 11:59 p.m. of October 15 of each calendar year except in accordance with the provisions of this section.

(c) Any person intending to apply any of the herbicides listed in subsection (a) or (b) in the counties and during the times prohibited shall adhere to the following procedure:

(1) The person shall notify the Department of the intent to apply herbicides listed in subsection (a) or (b) prior to the application on a form provided by the Department.

(2) The person shall file a report with the Department on a form provided by the Department no later than seven (7) working days after the last application date provided in the original notification of the herbicide use.

(d) Failure to comply with this section shall be a violation.

(e) All records and notifications required by this section shall be in addition to any records required to be maintained by a commercial applicator pursuant to other rules.

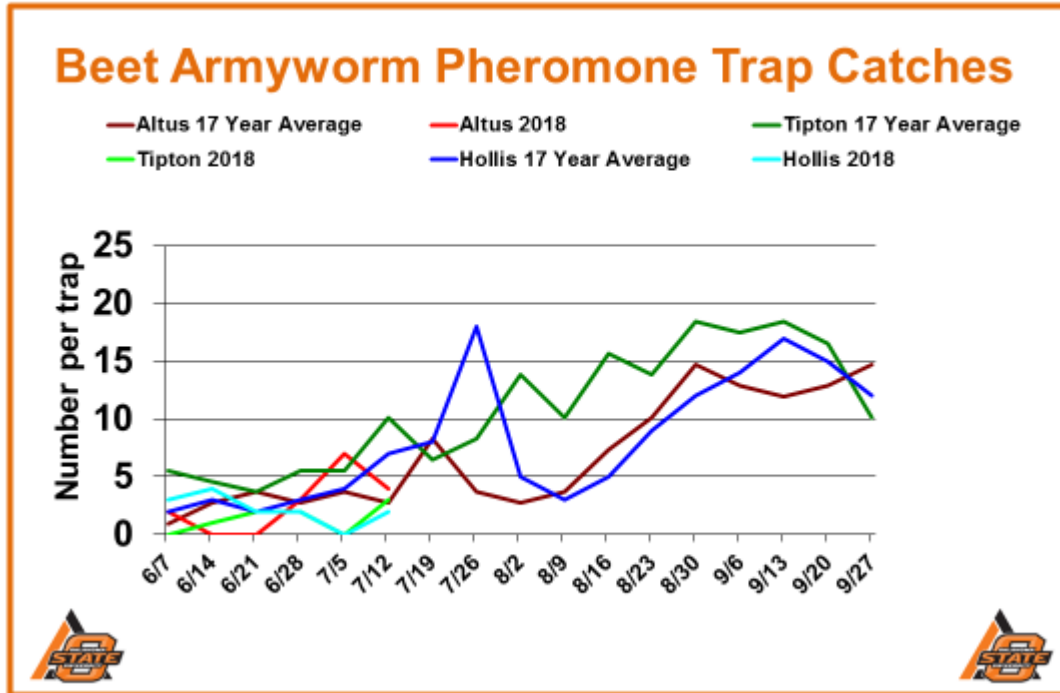
(f) The provisions of this section shall not apply to applications of 2,4-DB.



Mid-season phenoxy herbicide damage in cotton.

## Moth Trap Counts 2018

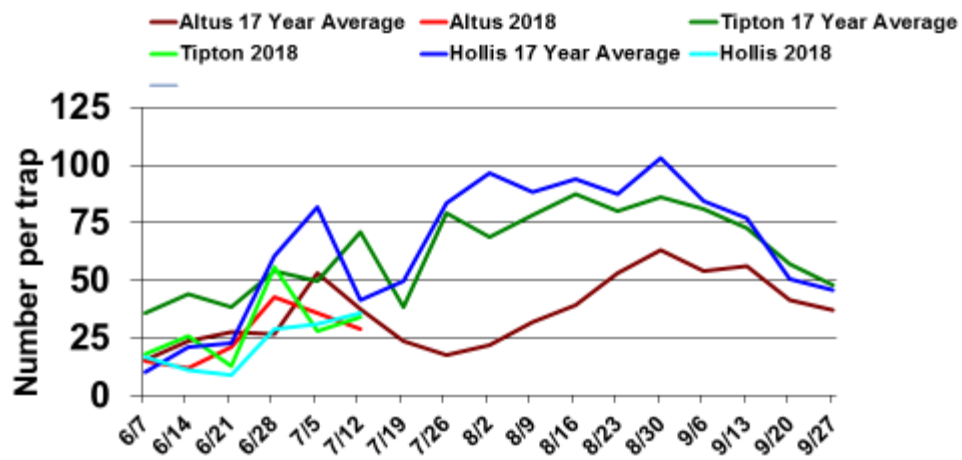
Moth numbers started off the season below yearly average but have been increasing. This year weather pattern have been pushing the flights to the east. As we return to a more “normal” weather pattern these numbers have showed the increase.



Beet armyworm moth  
Photo courtesy of University of Georgia

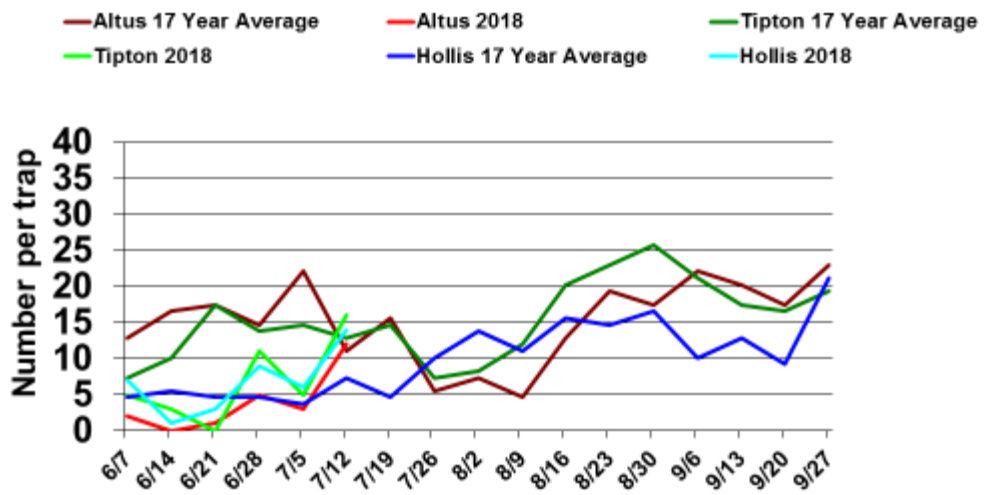


## Cotton Bollworm Pheromone Trap Catches




Cotton bollworm moth  
Photo courtesy of University of Georgia

## Tobacco Budworm Pheromone Trap Catches



Tobacco budworm moth  
 Photo courtesy of University of Georgia



If you have questions concerning insect control issues, please call the OSU Southwest Research and Extension Center or contact your local OSU County Extension Educator.

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](mailto: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](http://www.cotton.okstate.edu)

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

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