



Cotton Comments

OSU Southwest Oklahoma Research and Extension Center
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Insect Update

Crop development is advancing and early season pest pressure is nearly over. Midseason pests should be of concern now. Most fields will start to bloom in the next week to 10 days except some dryland fields that were planted mid to late June. This year, cotton fleahopper pressure was moderate, and control sprays are wrapping up at this time. Generally speaking, the main challenges were mis-timing/delayed applications due to weather. Aphids are still a concern in the Lugert-Altus Irrigation District, but the rest of the state is reporting few outbreaks. Preservation of beneficial arthropods becomes crucial now to curb future potential outbreaks of cotton aphids and spider mites. Aphid control sprays have had moderate success in some fields. If a second application is warranted a change of chemistry is recommended. Moth pheromone trap counts for cotton bollworms, tobacco budworms, and beet armyworms are reported below. I repeated the Cotton Aphid section from the June 30, 2017 newsletter for your convenience.

Cotton Aphids



Photos courtesy of University of Arkansas

Cotton aphids are small, soft-bodied insects commonly referred to as “plant lice”. Aphids occasionally occur on cotton in such high numbers that control measures should be implemented. Build ups are localized and usually occur after the use of insecticides that are harsh on beneficial arthropods, including pyrethroid types. The insects are found on the underside of leaves and along the terminal stem, causing misshapen

leaves with a downward curl and stunted plants. The insect damages cotton directly by sucking juices from the plant and indirectly by secreting honeydew. The honeydew is sticky and can lower the grade of lint. Sticky cotton may result in significant problems during the spinning process at mills. A sooty mold can develop on the aphid honeydew and discolor the lint. For more information on aphids, please click on the following link.

[Texas A&M AgriLife Extension Aphid Management Guide](#)

Due to the high probability of beneficial arthropod control of cotton aphids, if this pest is found, any potential control measures should be carefully considered. If you have any questions concerning aphid populations, call this office.

Beneficial Arthropods

Preservation of beneficial arthropods becomes crucial now to curb future potential outbreaks of cotton aphids and spider mites. Click on the following link to better understand the role of beneficials to control cotton aphids.

[University of Arkansas Aphid Threshold and Putting Beneficial Insects to Work](#)

Also take into account the presence of other beneficial insects.





Lady Beetle larva

Lacewing larva

New Cotton Bollworm Economic Threshold for Bt Cotton

Dr. David Kerns (Professor and Statewide IPM Coordinator with Texas A&M AgriLife Extension Service at College Station) and the midsouth entomologists working group have developed a new economic threshold for the bollworm complex in Bt cotton. **It is 6% damaged squares with live worms present in Bt cotton.** The following slides are courtesy of Dr. Kerns.



Why do we sometimes see unexpected injury in Bt cotton from bollworms?

- Field data demonstrates ALL current Bt cottons can experience unacceptable injury
 - Obvious differences in efficacy among technologies
- Possible contributing factors in Bt efficacy
 - Varietal expression
 - Plant maturity and health
 - Environmental conditions
 - Where eggs are laid
 - Resistance
 - High pest pressure



Conclusions



- No Bt cotton variety or technology is immune to unacceptable bollworm injury.
- Scout your cotton.
- Give the technology a chance to work.
- Based control decision on fruit injury with the presence of live larvae.
- Fruit injury threshold ranges from 3.54-10.33% injured fruit depending on price of cotton and crop yield expectation; 6% is a good middle of the road threshold.
- Make sure you know which worm you are dealing with; Bollworm or Fall Armyworm.
- Do not let the worms get big and into the bolls.
- Select the right insecticide.
 - Pyrethroids are inexpensive but resistance is an issue in many area.
 - Pyrethroids are weak on FAW.
 - Prevathon or Besiege are highly effective and usually provide about 3 weeks control.
 - Pyrethroids and to a lesser extent Prevathon/Besiege are not as efficacious on deep canopy larvae.

All slides are courtesy of Dr. Kerns, Texas A&M AgriLife Extension Service.

Field Surveys – Week Ending July 13, 2017

Location	Date of planting	Plant Stage	Insects	Comments
Blaine Irrigated Cotton Inc Enhanced Variety - Schantz	May 26	Prebloom	None detected	Good
Blaine Irrigated Dow Innovation - Schantz	May 26	Prebloom	None detected	Good
Caddo Irrigated OVT – OSU Caddo Research Station	May 30	Prebloom	None detected	Good
Jackson Irrigated DT RACE – Darby	May 15	Prebloom	None detected	Fair
Jackson Irrigated Bayer CropScience APT	May 24	Prebloom	None detected	Fair-Good
Jackson Irrigated OVT – OSU SWREC	May 24	Prebloom	None detected	Fair-Good
Jackson Dryland DT RACE - Abernathy	June 7	Match Head Squares	None detected	Fair-Good
Jackson Irrigated Cotton Inc Enhanced Variety - Abernathy	May 9	9 NAWF	Aphids below threshold Good beneficial insects	Good
Jackson Irrigated Innovation-Abernathy	May 10	10 NAWF	None detected	Good
Jackson Irrigated PhytoGen Innovation Trial – OSU SWREC	May 24	Prebloom	None detected	Good
Jackson Irrigated Entomology Trials – OSU SWREC	May 8	8.5 NAWF	None detected	Fair-Good
Tillman Irrigated DT RACE – Nichols	May 12	8.0 NAWF	None detected	Good
Tillman Dryland OVT – OSU Tipton Valley Research Center	June 13	Sprayed 48 REI		
Tillman Dryland DT RACE - White	June 12	Match Head Squares	None detected	Good

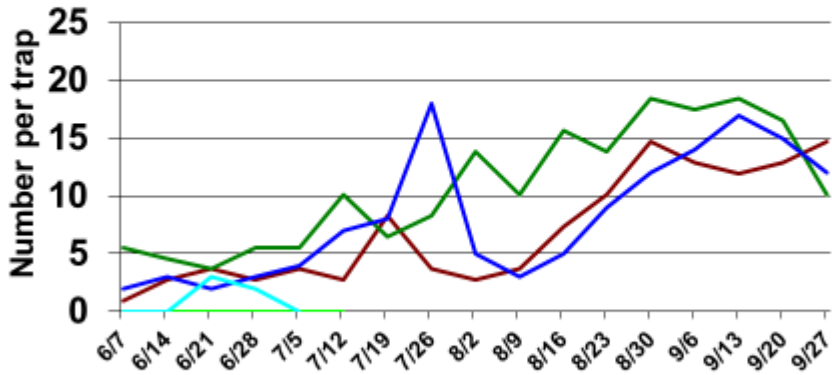
DT RACE – Dicamba Tolerant - Replicated Agronomic Cotton Evaluation Trial (Oklahoma Cooperative Extension)

OVT – Official Variety Trial (Oklahoma Agricultural Experiment Station, Altus, Tipton, Fort Cobb)

APT – Agronomic Performance Trial

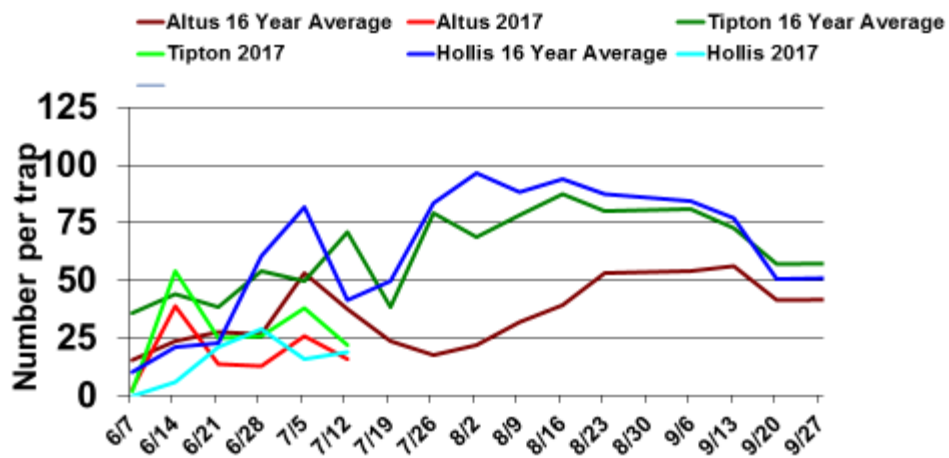
Beet Armyworm Pheromone Trap Catches

— Altus 16 Year Average — Altus 2017 — Tipton 16 Year Average
— Tipton 2017 — Hollis 16 Year Average — Hollis 2017



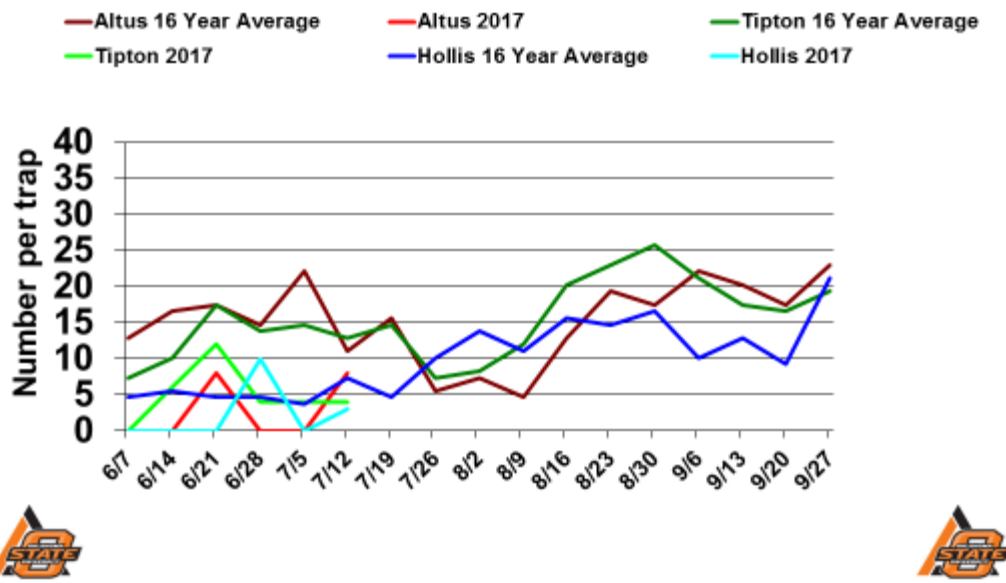
Beet armyworm moth
Photo courtesy of University of Georgia

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

JG

Attention New Cotton Producers: Oklahoma Boll Weevil Eradication Organization Concerns for 2017 Season

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 challenging 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. 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. Some new cotton producers may be unaware of this ongoing program. John Henderson, Director of the Oklahoma Boll Weevil Organization, based at Altus, provided the information below.

The Oklahoma Boll Weevil Eradication Organization (OBWEO) is preparing for the upcoming 2017 cotton season. It is our responsibility to ensure the continued success of this program. With all of the talk of a significant increase in cotton acres, there are some important issues with respect to OBWEO that you need to be aware of. 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 the past several years, we need you to provide to us the legal descriptions of these new cotton fields.

There is a boll weevil eradication assessment for harvested cotton acres. This assessment will be determined in September of 2017. For reference purposes, this assessment was \$2.50 per harvested acre in 2016.

The trapping density this year is one trap per 320 acres. In areas where planted cotton acreage density is high, not all fields will actually have a trap near it. In other areas where individual fields may be more isolated, these fields will need to be trapped.

For the following counties including Tillman, Cotton, Comanche, Atoka, Bryan, and Stephens, please contact John Lamb at 580-335-7760 (office) or 580-305-1930 (cell).

For all other counties in the state of Oklahoma, contact John Henderson at 580-477-4287 (office) or 580-471-7962 (cell).

For any other questions contact Brenda Osborne at 580-471-7963 or Amanda Montgomery at 580-550-0050.

Please give credit to this newsletter if any information is reproduced or incorporated in any other communications. Thank you.

Editor

Randy Boman

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Contributing Author

Jerry Goodson

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

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

www.ntokcotton.org

<http://cotton.okstate.edu/>

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