New Mexico State University

Extension Plant Sciences Cotton Newsletter

December, 2010 Volume 1 Number 3

This is the last edition of the cotton newsletter for this year. The purpose of our newsletter is to present relevant information and news items for New Mexico growers and other stakeholders in the cotton industry within the State.

Many cotton fields have been harvested in the State and some are still in the process of getting the cotton harvest in. The year has been a very good year for cotton and the prospects are looking good for the next season especially with the strong lint price.

Please feel free to send your comments, information and contributions to John Idowu (email: jidowu@nmsu.edu; phone: 575-646-2571). If you are interested in previous editions of the Cotton Bulletin, please feel free to download at http://aces.nmsu.edu/ces/ifcpm/cotton-production.html

NM Cotton Growers Association Meeting for 2011 - Registration

The New Mexico Cotton Growers Association meeting will be coming up on January 26, 2011 from 8:30am till 4:30pm at the Ruidoso Convention Center, 111 Sierra Blanca Dr. , Ruidoso, NM .

- Program highlights during the conference will include:
- Cotton prospects for 2011 and beyond
- Pest and disease management
- Official variety trials
- Acala glandless cotton trial
- Roundup Flex Pima Stewardship program
- Weed management strategies

A registration form is attached to this newsletter. Please complete and mail the registration no later than January 19th to help us plan for lunch. Registration Fee is $20 per person.

Send completed registration to:

Mary Curtis

Extension Plant Sciences Department

New Mexico State University

MSC 3AE, PO Box 30003

Las Cruces, NM 88003

For more information on registration, contact Mary Curtis via email (marcurti@nmsu.edu) or call 575-646-1715.

Cotton Insects 2010

No pink bollworm was captured in any of more than 50 traps that were set up this fall from Eddy County to the Texas border. Over 99% of the pink bollworm captures were from some traps near Midland, Texas. Trap captures in New Mexico have been very low for the last few years, but zero captures was a nice surprise. This was a very unusual year for insect pests in New Mexico. Some fields had no significant problems. Other locations had outbreaks of insects at an unusually high pest level for New Mexico conditions. Three major insect pests that were observed during the season include:

1. Cotton square borer

Cotton square borer (Figure 1) has been seen in New Mexico at very low levels periodically, but this year was the first time it was high enough to be a concern in some fields. Although we see cotton square borer periodically, it has always been a relatively rare occurrence with vey low populations. This year cotton square borer was present in some non-Bt fields at levels that almost justified insecticide applications.

Most people are not familiar with this insect since it has not been a regular pest in cotton. It is as an adult, a small blue hairstreak butterfly (Figure 1). As a larva, it feeds on a variety of plants including cotton squares. The caterpillars are generally light green, with short hairs producing an almost velvety appearance. The feeding holes are said to be characteristically round but are not easy to distinguish from bollworm damage. There are 3 generations per year and continued feeding through the season is a possibility as long as squares are available. Similar to moth pests such as cotton bollworm and beet armyworm, cotton square borer caterpillar feeds for about 20 days before pupation. Adult emergence is about 10 days later making one generation every 30 days.

Cotton fields can withstand relatively high losses of squares from cotton square borer attack without an economic loss particularly during the late season in New Mexico. A short period of large losses can be compensated by cotton. The problem arises when square losses are both high and persistent. Boll losses due to the cotton square borer attack are the bigger concern.

2. Leaf-footed bug

Leaf-footed bug (Figure 2) is a boll feeder that was initially common in prickly pear then seemed to move to some cotton and pecan fields. This year, some fields were treated to protect cotton from damages due to leaf-footed bugs. Since Bt cotton only controls caterpillar pests, it could not protect cotton from being attacked by the leaf-footed bugs. This season was the first time that significant damages from the leaf-footed bug was observed in New Mexico, although there have been increasing reports from the neighboring states since about 2006. There is little information available on this pest. Damage is similar to stink bug, with staining of lint and deformation of bolls when younger bolls are attacked. There are probably at least 3 generations per year. They typically move into cotton fields late in the season. Adult leaf-footed bug are about ¾ inch long and are dark brown with a white stripe across its' back (Figure 2). The hind legs have flattened leaf-like expansions on the legs. Nymphs look similar to the adults but without fully developed wings.

3. Stink bug

Stink bug (Figure 3) is another boll feeder pest that was observed in cotton fields this year. They are an occasional pest of cotton bolls in New Mexico, but this year we had much higher than normal populations. Conchuela stink bug is most commonly found as a pest of cotton. It feeds on mesquite pods and is often found moving to cotton fields when the mesquite pods harden off. Most years this pest is found along the edges of the field, but this year populations were so high that they were often found throughout fields.

Little is known about the biology of this stink bug. It is primarily a seed feeder and prefers mesquite but will also feed on corn or sorghum in addition to cotton. They prefer alfalfa seed or headed out sorghum when available rather than cotton. Conchuela stink bugs are only found in cotton fields when bolls are available. They also prefer more lush fields. Like other true bugs, they feed by inserting a sucking mouthpart into the boll. The damage includes aborted small bolls and stained cotton lint in older bolls. The feeding may also allow entry of bacteria and result in boll rot. There is very little data on the damage thresholds of stink bug, but 20% damaged bolls can cause economic losses. Treatments might be justified with 1 stinkbug/6 ft row, but also bear in mind the tendency of this pest to only infest border rows, therefore a thorough field scouting may be necessary to estimate the true level of infestation.

Figure 1. Cotton square borer (Adult)

Figure 2. Leaf-footed bug

Figure 3. Conchuela stink bug

This article was written by Jane Pierce, an Associate Professor and Entomologist in the Artesia Science Center, New Mexico State University. Jane can be reached via email (japierce@nmsu.edu) or phone (575-748-1228)

Glandless Cotton Research Update

During the 2010 growing season, the Cotton Incorporated sponsored glandless cotton (cotton plant without gossypol) trials were set up at two research sites: NMSU: Leyendecker Plant Science Center, Las Cruces, NM and Artesia Science Center, Artesia, NM. Four collaborating

growers were involved in the glandless cotton trial in Anthony, Garfield, Lake Arthur and Otis, NM.

We compared three different varieties of Acala cotton: Acala 1517-99; Acala 1517-08 and Acala GLS (glandless variety).

The trials have been harvested and the currently yield and fiber quality results are been analyzed. A full report of the first trial season will be presented during the NM Cotton Growers Association meeting coming up in Ruidoso on January 26, 2011.

Glandless cotton with open bolls.

Cotton Task Force Meeting

Our next Cotton Task Force Meeting will be held during the NM Cotton Growers Conference in Ruidoso, NM on January 26, 2011. We will be reviewing our progress so far with cotton production in New Mexico. We will also discuss issues that can enhance cotton profitability in the state.

Cotton Prices

Cotton Monthly Prices A Index*

2010 Monthly Prices	Price (cents/pound)
January	77.39

February	80.05
March	85.80
April	88.08
May	90.07
June	93.04
July	85.73
August	90.35
September	104.73
October	126.55
14:34 GMT 8th Dec, 2010**	159.25

*Source: National Cotton Council of America
**Source: http://www.cotlook.com

Cotton Breeding Update

'ACALA 1517-09R', A NEW ACALA COTTON CULTIVAR WITH HIGH YIELD POTENTIAL AND GLYPHOSATE HERBICIDE RESISTANCE

The New Mexico Agricultural Experiment Station announces the release of a glyphosate herbicide resistant Acala cotton cultivar 'Acala 1517-09R' (Gossypium hirsutum L.) containing a Roundup Ready gene. This new cultivar was a single plant selection derived from a backcross BC3F2 between a Roundup Ready gene donor and 'Acala 1517-99' as the recurrent parent and possesses superior Acala cotton type fiber quality and high yield potential. Acala 1517-09R was tested in 11 replicated field trials in New Mexico from 2004 to 2007, seven field tests in eastern Arizona and the High Plains of Texas in 2004-2007, and seven locations outside of the Southwest region in 2005. Acala 1517-09R had similar or higher (averaged 15.6% higher) lint yield than the standard Acala 1517-99 across all the environments tested in New Mexico. Its yield was similar to or higher than Acala 1517-99 except for one tests and it also yielded 5% higher than 'PHY 72 Acala' outside of the Southwest except for one test. On average, Acala 1517-09R had longer and finer fibers than Acala 1517-99, with slightly higher lint percentage

but reduced boll size and fiber strength. Acala 1517-09R is best adapted to the southwest arid region of the Cotton Belt, where the traditional Acala 1517 cultivars have been grown.

For questions regarding the development of Acala 1517-09R, please contact Dr. Jinfa Zhang, Cotton Breeder and Associate Professor, Department of Plant and Environmental Sciences, College of Agricultural, Consumer and Environmental Sciences, New Mexico State University, Las Cruces, NM 88003. Phone: (575) 646-3438; Fax: (575) 646-6041
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_____, John Idowu, Extension Agronomist, New Mexico State University is an equal opportunity employer. All programs are available to everyone regardless of race, color, religion, sex, age, handicap or national origin. New Mexico State University and U.S. Department of Agriculture cooperating.

New Mexico Cotton Growers Association
2010 Annual Cotton Conference
January 26, 2011

Ruidoso Convention Center, Ruidoso, NM

Name_____

Company_____

Address_____

City_____**State**_____**Zip**_____

Phone_____**Cell (optional)**_____

Email Address_____

Would you like to present a short industry update or have a table-top display?_____

Registration by January 19th is appreciated to guarantee numbers for lunch.
Cost is $20.00 per person

There will be some room for table-top displays for industry representatives around the conference and break room. No cost for displays but we ask that you provide one door prize for drawings during the meeting.

If you would like to sponsor one of the two coffee breaks or the lunch or provide additional door prizes, please let us know in the space below.

Total Registration Due:_____ Total Sponsorship Due:_____

Please make checks payable to New Mexico State University and mail to:
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