

Northwest Plains Pest Management News

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Bailey and Parmer Counties

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A good portion of the Northwest plains has received much needed rain this week, weekly accumulations ranged from .8 inches to over 2 inches at local weather stations. The precipitation did not come without cost, some areas were also stricken with hail which has taken a toll on area crops.

Over 5000 acres of cotton was severely damaged, much of which may end up being a total loss around the Farwell and Lariat areas. Fields in this area sustained from 50% to 90% terminal loss plus severe damage on plants which still have the terminal intact. Square sets in this damaged cotton range from 0 to 15%. Over 1000 acres of cotton was also lost and at least 3000 more damaged in the Maple area.

Corn has also been damaged, leaves are stripped, tassels broken, and stalks bruised. Many fields have sustained mostly cosmetic damage but some may have lost some yield potential.

The pest situation appears to have let up a bit this week. Cotton fleahopper numbers have ranged from near 0 to around 10,000 per acre. The threshold in the third week of squaring is

Daily Water Use	
Crop	Inches per day
Corn	.38
Cotton	.20-.25
Grain Sorghum	.21
Bermuda grass	.23
Fescue/ Bluegrass	.30

Cotton Heat Unit Accumulation¹			
Location	Current	2004	Long Term ²
Farwell	774	722	
Friona	770	769	
Muleshoe	766		704
Muleshoe WR	815	843	

¹ DD 60 based on May 1

² Based on Muleshoe long term weather data 1971-2000

12,500 to 14,500 fleahoppers per acre and a square set of less than 75%. Currently most fields which have not been damaged by hail have a square set from around 80% to over 90%.

Lygus bugs continue to be found in very low numbers, 0 to 1000 per acre field average but individual sites within the field have ranged from 0 to over 4000 per acre. For this reason do not make a pest management decision based on a single inspected site in a field. Single site inspections in most cases will indicate pest infestations dramatically below or above the actual infestation.

Several *Lygus* species may be present and feed on cotton terminals, squares and small bolls. Adults are 1/4 inch long, have a conspicuous triangle in the center of the back, are winged, and vary in color from pale green to yellowish brown with reddish brown to black markings. Immature lygus bugs are called nymphs.



Adult Lygus bug.

They are uniformly pale green with red-tipped antennae; late instars have four conspicuous black spots on the thorax and one large black spot near the base of the abdomen. The nymph's wings are not developed, but nymphs can move rapidly and are difficult to detect in cotton foliage. Small nymphs may be confused with aphids, cotton fleahoppers and leafhopper nymphs. Lygus bugs can also be easily confused with the scentless plant bug. A key distinguishing characteristic is the clubbed



Scentless plant bug.

antenna (enlarged near the end) of the scentless plant bug. Plant bugs prefer legumes to cotton and usually are found in large numbers in areas of alfalfa or potato production or areas providing wild hosts, such as clovers, vetches, mustard and dock. Lygus

bugs are attracted to succulent growth; their feeding results in shedding of squares and small bolls, stunted growth, and boll deformation.

The need for lygus bug control is determined by their abundance in relation to the fruiting condition of the cotton plants. During the first week of squaring, the economic threshold is 4400 lygus bugs per acre combined with less than 90 percent square set. In the second week of squaring, the economic threshold is 4400 lygus bugs per acre combined with less than 85 percent square set. In the third week of squaring, the economic threshold is 4400 lygus bugs per acre combined with less than 75 percent square set.

The following natural enemy report is provided by Andy Carthel, IPM Intern for the Northwest Plains IPM program.

Natural enemies are being found in large quantities throughout area cotton. Depending upon insecticide applications, numbers have

ranged from 8,000 to 35,000 per acre in untreated fields and 3,000 to 12,000 per acre in treated fields. Some of the most abundant beneficial arthropods being found are damsel bugs, lady beetles, bigeyed bugs and crab spiders.

There are many different species of damsel bugs, but the most common species is the pale damsel bug. Damsel bugs are dull tan to gray in color, range from 3/8 to 1/2 inch in length and can be identified by the tapering of their body down to their head. Damsel



Adult damsel bug.

bugs are similar to assassin bugs, except that their neck is wider than their head. Nymphs look like adults but are smaller and lack wings.

Damsel bugs are one of the key predators in area crops, where they feed on pests such as fleahoppers, lygus bugs, aphids, leafhoppers, spider mites, and bollworm-budworm eggs and larvae. They may also feed on other predators such as minute pirate bugs and big eyed bugs.

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