



# Northwest Plains Pest Management News

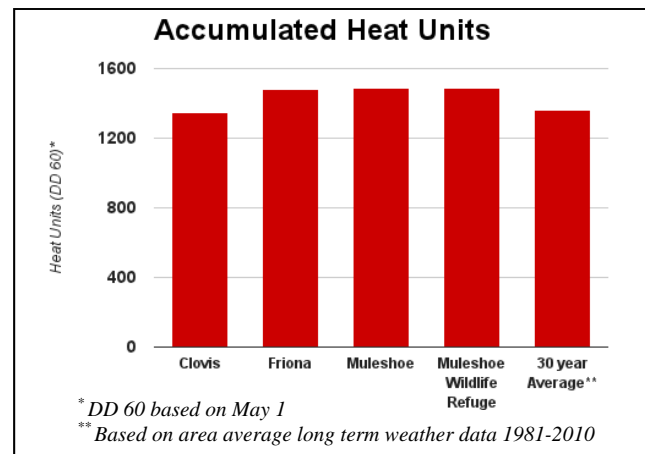
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Bailey and Parmer Counties

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Scattered thunderstorms continue to provide much needed moisture to thirsty crops in their paths. Some of the storms contained hail which has caused some crop damage, but for the most part, the benefits of the moisture outweigh losses due to hail. Much of the earlier planted corn is in full dent while the latest planted corn has yet to tassel. Cotton is at peak bloom with most fields between 5 to 6.5 nodes above uppermost white flower (NAWF). Grain sorghum is responding very well to additional moisture from recent storms. Field maturities range from milk stage to those still growing vegetative.

Grain sorghum should be regularly inspected for headworms from head emergence until hard dough. Estimating the economic injury level for headworms is complicated because the potential yield loss varies with the size of the larvae. That is why it is necessary to record the number of small (up to 1/4 inch), medium-size (1/4 to 1/2 inch long) and large (1/2 inch long or longer) headworms. Small larvae consume very little grain (about 10 percent of the total) and about 80 percent of them die in this stage. Therefore, small larvae should not be considered in determining the economic injury level. If most headworms are this size, sample the field again in



3 to 4 days. About 19 percent of medium-size larvae survive beyond this stage. Thus, the potential grain loss from medium-size larvae is only 19 percent of the potential loss from large larvae. Most corn earworm larvae larger than 1/2 inch will survive to complete development, and these large larvae are most damaging; they consume 83 percent of the total grain consumed during larval development. If most of the larvae are larger than 1/4 inch, determine which size (medium size or large) is most common and use the corresponding threshold to make treatment decisions. An Android based threshold calculator can be found at the Google Play Store; <http://goo.gl/8mXvv>. We also have a web app for other operating systems which can be accessed at <http://goo.gl/5k7ZtU>.

The beat-bucket technique is the best way to estimate the number of headworms in sorghum. Shake sorghum grain heads vigorously into a 2 to 5 gallon plastic bucket (a small white office trash can works well), then count the caterpillars in the bucket. For easy math I like to work

Potential Dailey Water Use*	
Crop	Inches/Day
Corn	.20-.27
Cotton	.19-.24
Grain Sorghum	.18-.23

\*Daily estimated crop water demands (inches of water per day) based on PET data from Halfway.



<http://nwipm.blogspot.com/>



IPM radio show on Fox  
Talk 950 AM Wednesdays  
from 1:00-2:30



<https://twitter.com/NWIPM>



Beat bucket, TAMU photo

with sets of 10; where I shake ten random heads as I walk down the row then I count and evaluate the size of the larvae. If more heads are sampled in a set there may be too much “trash” in the bucket to efficiently make

counts. Record the number of small, medium and large headworms found in the samples. Then use the threshold appropriate for the size of the majority of the headworms. Using the calculator mentioned earlier, where control cost is \$15/ac and grain value is \$8/CWT an insecticide application should be considered if 19 medium (1/4 to 1/2 inch) or 4 large (>1/2 inch) worms are present per 10 heads (based on 50,000 heads/ac).

Lots of moth activity has been observed in area cotton, most has actually been smartweed borer but the number of bollworm moths has picked up recently. Adults are yellowish brown moths with a wing span of approximately 1.5 inches; considerably larger than the smart weed borer. Eggs are

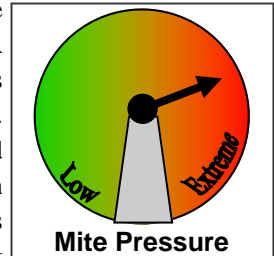


Bollworm moth on bloom

about the size of a pin head, white and somewhat domed shaped with ridges running from top to bottom. Eggs can be easily confused with looper eggs which are flattened on top. Larvae range from 1/16 to 1 5/8 inches long depending on age. They are variable in color including yellowish, greenish, or brownish forms with a tan to brown head. Black bumps with a protruding spine are uniformly distributed over the body. Some may be conspicuously striped. Newly hatched larvae feed on tender vegetation for a short period after emergence. This vegetative feeding is rarely damaging. Larvae then move to and feed on squares and bolls. This direct fruit feeding, often times, will result in economic loss depending on the number of larvae present. Treatment may be justified in conventional cotton if 10,000 small (1/4 inch or less) larvae per acre are present. If larvae are 3/8 inch or more in length then treatment will likely be justified if 5,000 or more larvae per acre are present.

Treatment decisions in Bt cotton should not be made based on small larvae since some feeding must occur before larvae are controlled. Treatment of Bt cotton may be justified if 5,000 or more medium sized larvae (3/8 to 1/2 inch) per acre are present and square and/or boll damage is observed.

Spider mites persist in many corn fields in varying degrees. Some populations have been held in check by miticides and beneficials while others continue to grow. A miticides residual activity has certainly been tested this year. Some fields have not had beneficials in great enough densities to help suppress mites for an extended period. . Most yield loss is a result of feeding damage at or above the ear leaf. Yield loss is a result of reduced grain fill, premature dry-down, and weaker stalks which may cause lodging. Once corn is fully dented mites will not likely impact grain development but could still impact stalk strength.



#### Boll Weevil Eradication Changes For 2013

The Commissioner of Agriculture has set the 2013 assessment rate for the NWP Zone at \$1 per dryland acre and \$2 per irrigated acre. As part of the rate reduction the failed acre credit has been eliminated. So what does this mean? All planted acres of cotton will be assessed. For more information contact the Foundation at 1-800-687-1212 or log on to [www.txbollweevil.org](http://www.txbollweevil.org).

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