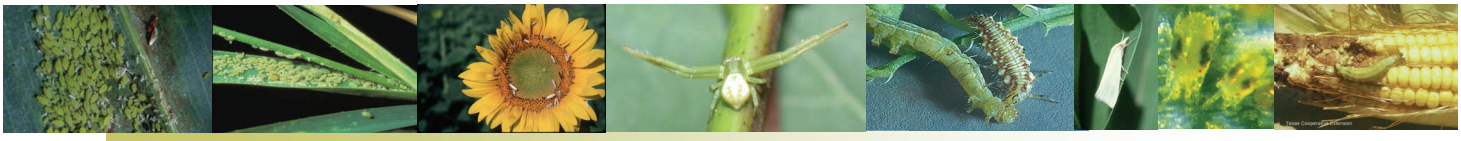

Panhandle Pest Update

Texas AgriLife Extension Service

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General Situation

Special points of interest:

- Moth activity in trap catches
- Spider mite predators
- Whorl and sorghum head worms
- Wheat pest management
- Upcoming Meetings

July has been an interesting month. We have had periods of extreme hot, dry conditions. In contrast, the weather has been relatively cool and wet this past week. Overall, with the recent rains, the crops are doing well.

Corn

Based on moth captures in traps across the area Western bean cutworm (WBCW) are still activity North of Amarillo and there are reports of continued egg laying. Continue checking fields for these infestations. As mentioned in the last issue, eggs that are purple will hatch in 1 to 2 days.

Western Bean Cutworm Eggs

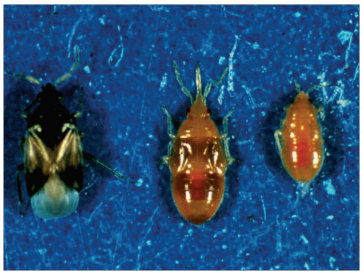
Southwestern corn borer (SWCB) moth activity has increased in localized spots south and west of Amarillo. As we move into August, SWCB egg laying activity should increase as moth numbers become higher and more wide spread.

The cooler, wet conditions have helped to moderate and slow spider mite population growth. Also, predatory mites and six spotted thrips have been observed and are helping to keep spider mite infestations in check in some fields. These two predators can contain the spider mites and prevent mites from reaching economically damaging levels.

Six-spotted thrips adult, photo courtesy of Monti Vandiver

Predatory mite

The predatory mites are similar in size as the spider mites, but the body has more of a tear drop shape. Coloration is often clear to light orange. Along with these to predators, immature and adult life stages of the minute pirate bug and the stethorus beetle, aka spider mite destroyer, can be very effective predators of spider mites. While scouting fields watch for these beneficial predators as they may be the most effective method for controlling spider mites. Keep this in mind if chemical applications are needed to control lepidopteran pests, such as Southwestern corn borer, Western bean Cutworm, Fall armyworm, etc. Selecting a chemical which does not flair mites and has a minimal effect on the natural predators will help prevent a secondary outbreak of spider mites.



Minute pirate bug, adult and immature life stages

Stethorous beetle and larva

Cotton

Now that cotton is flowering the cotton fleahopper is not considered a pest of economic importance. The lygus bug can still be a pest. Also, during the blooming period fields will need to be

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scouted for cotton bollworm, fall armyworm, and possibly beet armyworm. Fortunately, reports are that there is little pest activity in cotton

Sorghum

Continue monitoring whorl stage sorghum for caterpillars. As sorghum begins to flower and during grain development scout fields for caterpillars and stink bugs in the heads. The following is an excerpt from Focus on South Plains Agriculture, (volume 47, no. 12) by Dr. Pat Porter explaining the damage potential of caterpillar larvae to grain sorghum at different growth stages. *Small sorghum is not immune from significant damage. Very young plants, those in the five leaf stage (approximately 3 weeks after emergence) to growing point differentiation (about one month after emergence and 7 – 10 leaf stage, depending on maturity class) are at risk. These growth stages correspond to stages 2 and 3 in How A Sorghum Plant Develops. We do not have formal thresholds for caterpillar pests on sorghum at these stages. However, Dr. George Teetes, retired TAMU sorghum entomologist, used a personal "worry level" of two medium sized larvae per plant and something like 50 – 70 percent of plants infested with live larvae. Stage 4 is what we normally think of when we talk about "whorl stage" sorghum, and is when the flag leaf is visible in the bottom of the whorl. Plants can withstand much more foliar damage at this time. Our threshold is when larval feeding reduces leaf area by more than 30 percent* OR *when larval feeding is damaging the growing point within the whorl. Leaves can withstand a lot of damage, the growing point cannot. Don't make decisions based solely on leaf damage. It is important to unwrap plants to inspect the growing point. Stage 5, boot stage, is at risk because even one large larva can do a lot of damage to the young head while it is compacted in the whorl. Headworms are what we get at Stage 6 (half-bloom), Stage 7 (soft-dough), and even Stage 8 (hard dough). The thresholds for headworms were recently revised by Greg Cronholm and Allen Knutson, and there are different thresholds depending on whether the larvae are mostly small, mixed in size or large in size. Refer to Managing Insect and Mite Pests of Texas Sorghum for a complete explanation of headworm thresholds and scouting.*

Wheat

Preparations for wheat planting are beginning to take place. Now is a good time to develop plans for managing potential insect pests this coming season. Historically, greenbugs are our number one, key pest and plans should be directed at managing them first. Then implement strategies for other pests.

Management strategies for the greenbug (GB) are 1) delay planting, 2) plant GB resistant wheat (Tam 112 or Tam 110), and/or 3) use insecticide seed treatments for early season seedling protection.

Greenbugs

The use of insecticide seed treatments will also provide protection against wireworms and other aphids (Russian wheat aphid, Bird cherry-oat, and English grain). The insecticides available for use to treat seeds contain either thiamethoxam (Cruiser 5FS) or imidacloprid (Goucho XT, Raxil MD-W, Enhance AW, Attendant 600, Gaucho 600, Gaucho 480). While there are no registered insecticides for white grub control in wheat, limited field tests suggest that these two active ingredients can be effective. Consider using these products if a field has a history of damaging infestations.

Additional information about managing wheat pests are available in the Texas AgriLife Extension publication E-399, Managing Insect and Mite Pests of Texas Small Grains.

Upcoming Meetings

August 10, Amarillo Area Wheat Conference, Texas AgriLife Research and Extension Center, Amarillo, TX, contact either Kyle Stewart (Armstrong co.) at 806.226.3021 or Michael Wilkes (Oldham co.) at 806.267.2692.

August 11-12, SICNA/2009 Great Plains Sorghum Conference, Texas AgriLife Research and Extension Center, Amarillo, TX, contact Dr. Brent Bean at 806.677.5600 for registration information.

August 13, Wheatheart wheat conference, Ochiltree Expo, Perryton, TX, contact Scott Strawn at 806.435. 4501.

August 20, 2009 Dumas Genuity™ Showcase, Monsanto, Donald Crownover Farm, 5 miles west of Cactus on FM 297, Contact your local Monsanto Representative for information.

August 25, Perennial Grass Field Day, Texas AgriLife Research Field, Etter, TX, Contact Dr. Brent Bean at 806.677.5600 for information.

True wireworm adult and larvae

False wireworm larvae