Panhandle Pest Update

Texas AgriLife Extension Service

July 9, 2010 Issue 5

Panhandle Pest Update

Corn Insects

Last week pheromone traps were beginning to capture Western Bean Cutworm (WBC) moths which tended to correspond to when WBC moths started to become active in 2009. For this week (Monday’s collection) 232 moths were caught in a trap south of Dalhart but were not as high in the other Dalhart trap. Moths are active at night and the females lay eggs in clusters on the top leaf surface in the upper third of the corn plant. Freshly laid eggs are pearly white and gradually darken to a purplish color when ready to hatch in five to seven days. Newly hatched larvae will either feed on pollen in the developing tassel within the flag leaf or move to the silks of ears if corn has tasseled. Ultimately larvae migrate to the ear and damage the developing corn kernels. Once inside the ear insecticide treatments are ineffective. Insecticide treatments should be timed when at least 8% of the plants have egg masses or small larvae. If most eggs are hatched, treat when the crop is at least 95% tasseled and before the larvae have started to feed on the silks. If most eggs have not hatched and the crop is completely tasseled, then treat when most eggs have reached the purple stage. Other WBC information is available at http://www.ext.colostate.edu/pubs/insect/05538.html or http://msuent.com/assets/pdf/21WBCCornDamage.pdf.

Fall armyworm moth numbers dropped to nothing in my traps around Dalhart. And moth numbers from Castro/Lamb (4 or less) and Bailey/Parmer Counties were also low (19 or less) this week.

Southwestern corn borer moth numbers continue to be low (1 or less) in
traps from Dalhart. Numbers from Castro/Lamb county traps dropped from a high 55 last week to a high of 16 this week. And, Numbers from Bailey/Parmer county traps were no more than 1 or 2 per trap.

Dr. Michels’ degree day model for estimating and predicting the percentage emergence of Adult Western Corn Rootworm from Lamesa to the Northern Panhandle is available in a table on page 4. The predicted percent adult emergence is at 50% or greater for all locations except Dalhart (28.5%).

The wet cool conditions the last couple of weeks have keep spider mite infestations area wide at relatively low levels. Data from our early season spider mite control tests are shown in Figures 1 and 2 (Castro Co.) and Figures 3 and 4 (Parmer Co.). The field trial for 3-4 ft tall corn at the Halfway is not shown because mite densities are less than 1 per plant in all plots. Mite infestations has never established in these plots.

Mite infestations in plots at the 1-2 ft tall corn trial in Castro county were established prior to treating and should have increase if it were not for Western flower thrips migrating in heavy numbers from wheat between the pre-treatment count to the 7 day post treatment count (Fig. 1 and Fig. 2). These thrips densities have dispersed and few predators were counted at the 28 day post application sample date (last week). Corn was 4-5 ft tall at the 28 day sample and will be tasseling soon. Our next scheduled sampling date is next week (42 days from treatment) and it will be interesting to see if mite numbers can increase to damaging levels in the untreated plots or even in the miticide treated plots.

When the early season mite control test was setup in Parmer county on June 24, the corn was 3-4 ft tall and mite densities were established but at relatively low levels (Fig. 3, next page). Predator densities were also very low and have remained low upto our 14 day count yesterday (Fig. 4, next page). The majority of the predators were lacewing egg, but 1 or 2 six spotted predator thrips were found from all of the leaves sampled. All of the miticides provided initial knockdown of mites for the first 14 days after application (DAA) compared to the untreated check. Mite densities in the untreated check plots have not increase, which may be due to cool and wet conditions. A heavy thunder storm with driving rain and small size hail damaged the corn over the June 26 weekend. The recent cold front this past week added more rainfall and has kept temperatures cooler. The next scheduled sample date for this test is in two weeks (28 DAA).

Included on page 3 are some pictures of the most important mite predators.
Figure 3. Spider mite densities from a field test in Parmer county that was treated June 24 when corn was 3-4 ft tall.

Figure 4. Predator densities from a field test in Parmer county that was treated June 24 when corn was 3-4 ft tall.
2010 Western Corn Rootworm Percentage Emergence of Adults Model
Texas AgriLife Research, Bushland, TX
Compiled by Dr. Jerry Michels, and Ms. Patty Garrett
Valid for 7/7/10

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<th>Location</th>
<th>% Emergence</th>
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1111 Total DD = 1% emergence
1593 Total DD = 50% emergence

Western Corn Rootworm Accumulated Degree Days 2010

* Average Air Temperatures for Lubbock were not available for 07/01 - 07/06/2010