



Panhandle Pest Update

Texas AgriLife Extension Service



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Improving Lives. Improving Texas.

General Situation

Recent rains have been a welcome site. Overall, rainfall amounts have been from 1 to 3 inches. Driving across the Panhandle all of the crops are looking good. But, the prediction of hot dry weather could cause stressful conditions quickly.

Corn

Moth trap catches being conducted by Elizabeth Speaker, Camilo Garzon, Monti Vandiver, Emilio Nino, and Pat Porter across the Panhandle and southern High Plains are beginning to show activity of corn earworm, Southwestern corn borer, Fall armyworm, Beet armyworm, and Western bean cutworm.

Based on moth trap captures, the heaviest Western bean cutworm (WBCW) activity has been from Stratford to Dalhart for about two weeks. Numbers have increased in the Dumas and Etter area. Area reports indicate field infestations are sporadic, but some fields have already been treated in the Dalhart area. Now that the corn is silking and tassels have emerged the WBCW will be moving to the silks and into the



ear. Based on published information, an insecticide application should be made during silking, blister/early milk growth stages when 5% to 8% of the plants are infested with eggs or young larvae at the flag leaf or tassel. If eggs have not hatched and the field has tasseled, timing the application will depend on when the majority of eggs will hatch. Eggs that are purple will



hatch in 1 to 2 days. When making control decisions remember to select an insecticide that will not flare spidermites if mites are present.

Fall armyworm and corn earworm have been the predominate moths across the area. Southwestern corn borer moth numbers appear to be declining in the moth traps.

Spider mites could become more problematic now that corn is in the reproductive grow stages and if climatic conditions continue to remain hot and dry. Scout fields more regularly for changes in populations and damage.

Monti Vandiver, Extension Agent-IPM for Bailey and Parmer counties, reports high numbers of

Western corn rootworm (WCRW) adults in some fields. Silk pruning to a 1/2 inch from the tip of the ear by the adults can



cause poor pollination and kernel set. When there are 8 to 10 adults per plant and silks or excessive leaf damage is evident an insecticide application may be needed to control these beetles. Again, select an insecticide that will not flare mites and only make an application when absolutely necessary.

Dr. Jerry Michels, Research Entomologist, Texas AgriLife Research at Bushland, has developed a model for predicting the emergence of Western corn rootworm adults which is based on degree days from maximum and minimum daily temperatures and planting date. Below are the predictive percent emergence of Western corn rootworm adults based on 30 year temperature averages. There may be some shifts in the percentage of adult emergence for this year due to our current temperatures. However, the table provides a time frame for when the majority of adults will emerge in our area.

Special points of interest:

- Moth activity in trap catches
- Western Corn Rootworm adult emergence model predictions
- Leafminer infestation in corn
- Management decisions for cotton fleahoppers and lygus
- Whorl worms in sorghum

Ed Bynum, PhD

Extension Entomologist
6500 Amarillo Blvd. W.
Amarillo, TX 79106

Phone:
806-677-5600 ext. 612

E-mail
ebynum@ag.tamu.edu



Predictive Percent Western Corn Rootworm Adult				
	11-Jul	18-Jul	25-Jul	2-Aug
Bushland	31.2	53.4	73.3	86.3
Dalhart	13.3	37.8	61.9	80.0
Dimmitt	17.0	42.2	64.9	81.3
Dumas	25.8	53.5	74.3	87.1
Muleshoe	31.3	57.2	75.9	87.3
Pampa	32.2	59.5	78.4	89.1
Perryton	16.5	43.6	67.8	83.9
Stratford	10.5	34.1	59.8	79.0

Based on 30 year temperature averages and a plant-

Leafminers damaging corn in a field near Dimmitt. Mining of leaves by leafminers can be found every year, but it is uncommon for populations to build to levels that cause noticeable damage. In this field, leaves on the lower third of the plants had received enough damage to be concerned about. Fortunately, the population has cycled out with few larvae being found in the mines now.



Frank Peairs, Colorado State University, Bugwood.org

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Without confirmation as to the species, this leafminer is probably the corn blotch leafminer. The fly of this species is 1/4 inch long. Females lay eggs on the corn leaf surface. When the larvae (maggot) hatch they tunnel into the leaf tissue causing “mines” or transparent galleries. Some of the literature states that larvae will drop

off the plant to pupate in soil, but another says the larvae will pupate within the leaf gallery. The life cycle from egg to adult takes from 3 to 6 weeks depending on temperatures. Generally, as the corn matures the leaves become thicker and are less likely to be damaged.

Since leafminers are such a sporadic problem throughout the corn growing regions in the U.S., very little information is available on its’ damage potential or on management options.

Cotton

Cotton fleahoppers and lygus are the two pests of most concern, particularly when cotton is setting squares. These two pests feed on and kill the developing squares. If populations are heavy enough a substantial percentage of the early fruit can be destroyed. Cotton has the ability to compensate for this early square loss, but only when there are sufficient heat units later in the season to mature bolls from squares set in late August. Also, the fruit set early may be mature enough later in the season to escape damage from late season pests.



Adult Cotton fleahopper

Reports indicate percent square setting in cotton is currently good. Still fields should continue to be monitored for these two pests. The decision for applying an insecticide is based on both pest numbers and the percent square retention. During the first week of squaring, the economic threshold is 25 to 30 cotton fleahoppers per 100 terminals combined with less than 90 percent square set. During the second week, it is 25 to 30 fleahoppers per 100 terminals combined with less than 85 percent square set. Third week of squaring to first bloom, the threshold is 25 to 30 fleahoppers per 100 terminals combined with less than 75 percent square set. The economic threshold for Lygus bug through the first three weeks of squaring is the same percent square retention as for fleahoppers but much lower pest numbers that being 1 Lygus bug adult or nymph per three feet of row.

Sorghum

The moth activity of corn earworm and fall armyworm may result in “worms” or larvae in the whorls of sorghum plants. Infestation often do not result in economic losses even when leaves are really ragged by larval feeding. But, occasional larval densities can be high enough to cause deadheart in plants. Control of these pests in the whorl can be difficult if chemigation is not used. The limitation with aerial and ground applications is that there is not enough of the spray droplets deposited deep in the whorl for effective control. Control from aerial and ground applications may be improved by irrigating immediately to wash more of the insecticide into the whorl.

Another insect which may be observed in the whorl is the corn leaf aphid. These dark, bluish green aphids can produce high numbers in the whorl and then there numbers will crash when the sorghum boot emerge. Rarely do the infestations cause economic losses. They do provide a reservoir for beneficial insects to develop which are important in controlling greenbugs.