

TEXAS COOPERATIVE EXTENSION
SOUTHERN BLACKLANDS
PEST MANAGEMENT NEWS
WILLIAMSON AND MILAM COUNTIES

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GENERAL SITUATION

Dry weather continues to be the main story across the Southern Blacklands as we enter the month of May. The corn and grain sorghum crops are growing rapidly. The corn in some fields are showing signs of slight moisture stress as the leaves are beginning to twist in the afternoon hours. The majority of the cotton that is up to stand is at or approaching 1-2 leaf stage. There is still some fields where producers are intending on planting cotton still, but the fields need some moisture first before planting can be justified.

CORN AND GRAIN SORGHUM

Insect pressure continues to be relatively light in corn. One insect that growers need to be mindful of especially as these conditions persist are chinch bugs.

Adult and immature chinch bugs suck plant juices and cause reddening of the leaves. Damage by chinch bugs normally occurs from seedling emergence until the plants are 18 inches tall. Large numbers of chinch bugs can move into a cornfield by crawling or flying from wild bunch grasses or small grains. Once in the field they congregate and feed behind the leaf sheaths of the corn plant.

In fields with a history of earlyseason, economically damaging chinch bug populations the use of at-plant soil-incorporated insecticides can suppress the development of chinch bug populations. Granular formulations may provide 2 to 3 weeks of protection, provided sufficient rainfall is received

following application to wash the insecticide off of the granules. Young plants should be closely monitored for chinch bugs and feeding damage after germination and particularly during dry periods, even when at-plant insecticides are used.

Make at least five random checks in the field. Insecticide should be applied when immature and adult bugs are found on 75 percent of the plants.

For post-plant application, use only ground application equipment and direct spray nozzles at the infested portions of the plants. Control is difficult on larger plants.

For optimum control, apply at least 20 gallons of water per acre by ground and direct spray towards bases of stalks to provide thorough coverage.

In grain sorghum, yellow sugarcane aphids (YSA) and Greenbugs (GB) have been causing various levels of damage over the past two weeks. Currently, the YSA is the most abundant of the two aphid species present in fields and have caused the most damage to the grain sorghum of the two species. With populations of this pest so high and the persistent migration into fields, some previously treated fields have already been re-infested. Fortunately, as the plants get larger, they can tolerate considerably more of these toxin-injecting insect pests. However, on very young seedling plants, low numbers can cause plant death.

Here is some more information about YSA. This lemon-yellow aphid is covered with small spines and has two double rows of dark spots down the back. The yellow sugarcane aphid has a wide range of wild hosts and is often found on johnsongrass and dallisgrass in Central and South Texas. During feeding, this aphid injects a toxin during feeding which causes purple-colored leaves in seedling plants, and stunting and yellowing of more mature leaves. It has caused death of plants in the pre-boot stage. Some systemic insecticides (such as disulfoton, terbufos, or carbofuran) applied at planting will suppress the development of yellow sugarcane aphid infestations. Otherwise, infestations typically occur soon after plants emerge from the soil. Consequently, fields should be scouted and plants inspected beginning the first week of plant emergence and twice weekly until plants have at least five true leaves. Yellow sugarcane aphid injury to sorghum is most severe when plants are small. As plants grow larger they become more tolerant to yellow sugarcane aphid feeding. Very small seedling sorghum plants (1 to 3 true leaves) are often significantly damaged after being infested for one week or less. The economic injury levels presented in the following tables are based on percent yellow sugarcane aphid infested plants when the infestation occurs at the 1, 2 or 3 true-leaf stage. Do not count the two cotyledon leaves which first appear. To use the tables, determine the cost of control per acre (both the insecticide and cost of application per acre); then estimate the expected per acre value of the crop based on production experience. Match the appropriate columns in the table, reading down for crop value and across for control cost. The value found is the percentage of yellow sugarcane aphid infested plants that would cause economic damage sufficient to justify the cost of control.

Yellow sugarcane aphid feeding on seedling sorghum causes a purple or yellow leaf discoloration. By the time plant discoloration symptoms are readily visible plants have already been significantly injured. However, discoloration symptoms may be useful in assessing yield loss that might be used in a decision to replant.

Greenbugs are being found in many fields of grain sorghum currently; however, their levels

have been relatively low and they are usually been found mixed in with the YSAs. The greenbug is an aphid that sucks plant juices and injects a toxin into sorghum plants. The aphid is pale green and approximately 1/16 inch long with a characteristic dark green stripe down the back. Greenbugs often occur in damaging numbers under favorable conditions and may cause economic losses. The extent of greenbug damage in sorghum is dependent upon greenbug numbers, plant size, vigor and stage of plant growth, moisture conditions and effectiveness of parasites and predators. Producers are cautioned to observe plant conditions closely as well as greenbug numbers and damage. Damage at the seedling stage may result in stand loss. Greenbugs usually feed in colonies on the undersides of leaves. Characteristic reddened spots on the upper leaf surface and the occurrence of honeydew are associated with greenbug feeding damage.

Producers in areas of the state where greenbugs occur should consider planting greenbug-resistant sorghum hybrids to reduce damage. Producers should be aware that the primary type of resistance is tolerance, and should not expect plants to be free of greenbugs. However, resistant hybrids generally are infested with fewer greenbugs than susceptible hybrids. Damage thresholds for resistant sorghums are the same as for susceptible sorghums. Some sorghum varieties have various levels of resistance to greenbugs, you can check with your seed supplier for this information.

Sorghum producers are urged to check fields carefully for greenbugs during the production season. Observations should be made of plant damage, greenbug numbers, beneficial insect activity and plant moisture stress.

Treat plants up to about 6 inches in height when visible yellowing and reddening of the plant and greenbugs are observed and stand loss is probable. Larger plants up to the boot stage will tolerate more greenbugs than seedling sorghum. Control greenbugs on this size plant before any entire leaves are killed.

Yield reductions during the boot, flowering and grain development stages are dependent on greenbug numbers, length of time that greenbugs have infested plants and plant condition. High numbers on booting and older plants can cause yield reduction and weakened plants that may lodge at a later date. Greenbugs on boot to heading stage sorghum should be controlled when colonies are causing red spotting or yellowing of leaves and at the death of one functional leaf.

Insecticide applications are suggested if greenbugs are colonizing on the upper leaves of booting sorghum and tissue is dying. Plants can tolerate approximately 30 percent leaf loss before yield reduction occurs. After sorghum heading, indications are that greenbug numbers which cause the death of more than two normal sized leaves after flowering and before the hard dough stage should be controlled.

I have also noticed that fields of “hay grazer” appear to be heavily infested with YSAs. So if you have fields of this, be sure to continue to monitor them as well.

For more information about economic threshold levels suggested insecticides for controlling these and other pests and scouting procedures, check out the Williamson County Extension

