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Supplemental Insert for "Managing Insect Pests of Texas Sunflower," Publication L-1488 (January, 1998)

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We are preparing this insert to update growers on additional sunflower insect concerns that have been noted since the original document was prepared. First, the soybean stem borer, sometimes called the sunflower stalk girdler, has become a problem for sunflower in some areas of the Texas High Plains. This insect was not discussed in the guide (see below). Second, the sunflower head moth control measures in the insect guide represent more of a 'technical' recommendation, whereas as industry practices often represent a more 'practical' recommendation, which accounts for the delays, etc. that affect timely spraying by producers. We will expand these comments in a second draft shortly. Meanwhile, growers may refer to the discussion on sunflower head moth in "Common Concerns in West Texas Sunflower Production and Ways to Solve Them' until then.

Sunflower Stalk Girdler (Soybean Stem Borer) - Dectes texanus LeConte

Description

The sunflower stalk girdler also known as the soybean stem borer is an important pest of both sunflowers and soybeans in the Texas High Plains. It belongs to the family Cerambycidae (long-horned beetles) in the order Coleoptera (beetles). The adult beetle is pale gray in color and about 3/8 inch long with antennae that are longer than the body (http://www.fargo.ars.usda.gov/sun/suninsfd.htm#Longhorned sunlfower stem girdler). The larva is legless with a small brown head and will be ½ to 5/8 inch long when full grown (http://entowww.tamu.edu/images/insects/fieldguide/bimg178.html).

Biology and Life Cycle

The sunflower stalk girdler overwinters as a larva in the base of sunflower and soybean stalks. Some weeds such as wild sunflower, ragweed and cocklebur may also serve as important overwintering hosts. Larvae begin to pupate in early summer and adults begin to emerge in late June and continue emergence through August. The adult lays eggs in leaf petioles and, after hatching, the larvae tunnel toward the stem. Once larvae are in the stem, they tunnel down to the base of plant where they will girdle the plant at or just above ground level (1 to 2 inches) above ground level. There is only a single generation per year.

Damage

There may be some yield losses directly associated with larval tunneling activity; however, the greatest yield loss is from plants lodging as a result of being girdled. Infestation rates may easily exceed 50 percent in some fields. Sunflower stalk girdler infestations are worse following soybeans.

Scouting

The only exposed stage of sunflower stalk girdler is the adult. If not disturbed, the adults are easily observed on leaves and in terminals.

They appear to have weak flying ability. Adults are active over several weeks (late June through August) making control decisions difficult. Pheromone traps are not currently available to assist in monitoring adult activity. Egg-laying scars can be observed on leaf petioles. Larvae can be found in infested plants by splitting stalks.

Management

No insecticide control recommendations are currently available. If infestations are observed, harvest as early as possible to limit yield losses. Desiccation of heavily infested fields might be considered to hasten harvest. Do not plant continuous sunflowers or rotate behind soybeans. Destroy sunflower and soybean stalks in order to reduce the overwintering potential of sunflower stalk girdler.