

Dectes Stem Borer

Dectes texanus

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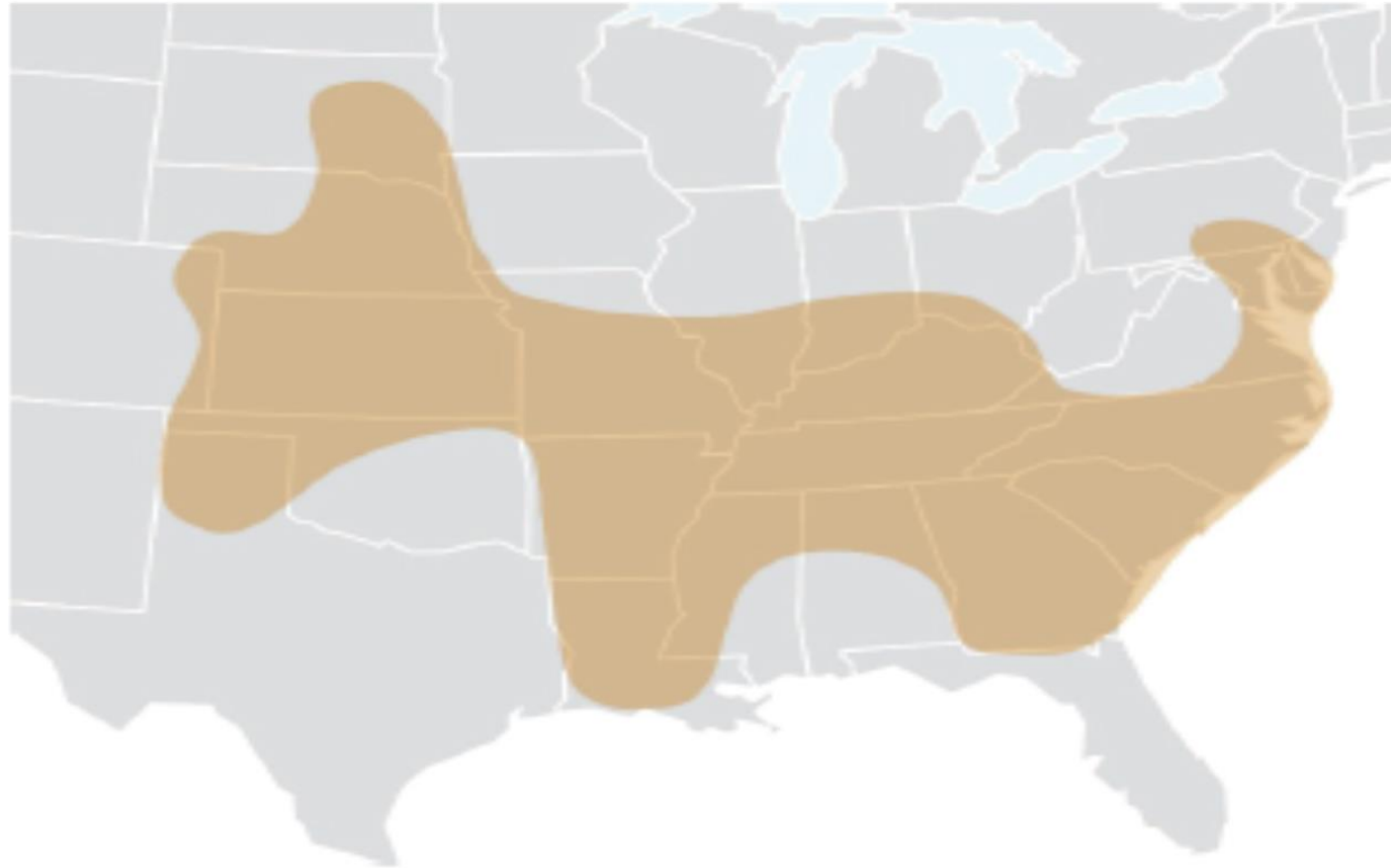
Soy Envoy



Dectes Stem Borer



Observed Distribution 2018



Life Cycle



Dectes Stem Borer



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Scouting and Identification

- Identify adult beetles during mid summer – July through August
- Observe dead trifoliates with larva tunneling
- Split soybean stems to find larva



Dectes Stem Borer Damage



Dectes Stem Borer Damage



Management Recommendations

- Cultural practices most beneficial
 - Crop rotation
 - Tillage to destroy residue for overwintering
 - Manage harvest timing to reduce lodging
- Insecticide options
 - Mixed/limited results targeting adults/larvae

Questions

Decetes Stem Borer in Soybeans

Pest Facts

- Common names: Decetes stem borer, soybean stem borer
- Latin name: *Decetes texanus*, family Cerambycidae
- The Decetes stem borer is a small, long-horned beetle whose larvae attack soybeans. It is a native insect species in North America east of the Rocky Mountains.
- Cultivated sunflowers were historically the preferred host plant for Decetes stem borer, and it was not considered a major pest of soybean. Damage to soybeans has been reported since the 1970s, but it has generally been sporadic.
- In recent years, however, reports of damage in soybeans have increased, both in frequency and in geographic range in the U.S.
- Instances of Decetes stem borer damage to soybeans have spread northward in the last several years, likely due to increasing temperatures.

Identification

- Larva: creamy white to dull yellow in color, without legs, ½-inch long with "accordion-style" segments (Figure 1)
- Adult: gray-colored beetle with long black-and-gray banded antennae; length is ½ inch (13 mm) (Figure 2)
- Egg: very small, white-colored egg laid inside soybean petiole where female cuts a scar.



Figure 1.
Decetes stem borer larvae.



Figure 2.
Adult Decetes stem borer.



Figure 3. Egg scars on a soybean stem.

Injury and Pest Symptoms

- Larvae damage soybeans by: 1) tunneling inside the stem, which can reduce yield production capacity, and 2) girdling, which causes plants to lodge.
- Larvae girdle stem one to two inches above soil line.
- Girdling, and subsequent lodging, tend to be most severe in early planted, short-season soybean varieties.



Figure 4. Decetes stem borer larva tunneling inside a soybean stem.

Pest Status and Economic Importance

- Decetes stem borer has increased in importance as a soybean pest in recent years. Increased infestation may be due to:
 - Increased adoption of no-till, which leaves the habitat of overwintering larvae undisturbed.
 - Warmer winter temperatures, which may allow greater numbers of larvae to survive the winter.
- Yield losses of 7 to 12% caused by larval tunneling have been reported.
- Greater yield losses can result from lodging caused by the girdling of stems prior to harvest.
- Decetes stem borers are also a pest of sunflowers, in which they cause similar damage by tunneling and girdling the stems.