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Department of Entomology, Soils, and Plant Sciences • 114 Long Hall • Clemson, SC 29634-0315 • Phone: 864-656-3111
email: dpento@clemson.edu

LESSER CORNSTALK BORER ON SOYBEAN

Elasmopalpus lignosellus (Zeller)

Description: The lesser cornstalk borer (LCB) larva (up to 3/4" in length) is bluish-green with brown or purple bands. When disturbed the larva thrashes wildly. Larvae build a distinctive sand-covered silken tube that is attached to the host plant. The adult female is a charcoal-colored moth (about 1/2" long) with the wings held straight back along the body at rest. The male moth is tan with charcoal wingtips.



Soybean seedlings with LCB larvae and sand tubes.
(Univ. of GA)



LCB female moth.
(M. Shepard)

LCB damage to soybean is first noticed as wilting, dead, or lodged plants. When seedlings are uprooted damage at the soil line may consist of an entry hole, girdling, or multiple feeding sites. Splitting the stems sometimes reveals that the larva tunneled into the plant. If plants are older when attacked, LCB feeding may not kill them and damage shows up later when stems break at the soil line from previous injury. This injury can be confused with that of three cornered alfalfa hopper since both form scar tissue and cause lodging. But LCB injury always occurs at the soil line whereas three cornered hopper injury occurs higher up on the main stem or lateral branches. Three cornered alfalfa hopper lodging also makes a cleaner break, more like a razor cut, whereas LCB stem breakage is more ragged. LCB larvae can be difficult to find after a rain but the damage is diagnostic.



LCB feeding damage and sand tube on soybean stem.
(J. Chapin)



Soybean stand loss due to lesser cornstalk borer.
(J. Chapin)

Biology: LCB overwinters in the soil as a larva or pupa. The female moth lays about 200 eggs at the soil surface. The life cycle can take only 3 weeks and multiple generations occur, but soybean becomes less vulnerable to attack as the plant grows and the stem thickens. LCB thrives on hot, dry sandy soils because the larval cuticle or "skin" is

able to retain body water much better than most insects. As a result, the LCB can thrive when conditions are too extreme for the beneficial insects that normally control it. LCB moths are attracted by smoke to lay their eggs in burned crop residues, perhaps because this pest evolved as a colonizer of newly emerged plants on burned-off lightning strikes.

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Prepared by Jay W. Chapin, Extension Entomologist/Professor, Department of Entomology, Soils, and Plant Sciences, Clemson University, Edisto Research & Education Center, Box 247, Blackville, SC 29817.

Phone: 803-284-3343 E-mail: jchapin@clemson.edu

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