

Soybean Insects

Thrips

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Classification and Description: Thrips are small, slender insects that belong to the order Thysanoptera.

Several kinds of thrips may be observed feeding on soybean in Tennessee.

Common examples include the soybean thrips (*Sericothrips variabilis*) and *Frankliniella* species such as flower and tobacco thrips. Adult thrips are about 1.5 - 2.0 mm long and can usually be distinguished from immature thrips by the presence of two pairs of wings that are held folded behind the back except during flight. Each wing is characterized by a fringe of hairs



Immature and adult thrips



Adult thrips of different species

on the posterior margin, but this is not visible except under magnification. Some adults may be wingless. Depending upon the species, adult color varies from yellowish to black. Eggs are very small and are inserted into the host plant. Immature thrips found in soybeans are usually pale yellow to straw-colored. Both immature and adult stages have modified, piercing-sucking mouthparts and feed on plant juices from the wounds made by their “beak.”

Hosts, Life History and Distribution: Most thrips species found on soybean have a wide host range and can be found in all parts of Tennessee. They feed on many cultivated, ornamental and wild plants. Wheat will often harbor large numbers of thrips. Wild or cultivated hosts, particularly those that are maturing or “drying down,” are potential sources of thrips infesting soybean fields.

Thrips overwinter as larvae or adults. Most species have multiple generations per year. The first generations occur on early-spring hosts. Thrips often disperse into soybean fields as soon as seedlings emerge. Most species take 10-30 days to develop from the egg to adult stage, although this is highly



influenced by temperature. Adult females may lay 30-300 eggs.

Pest Status and Injury: Thrips are very common insects found in soybeans. However, they have historically been considered a rare pest because soybean plants usually tolerate early-season injury. Economic damage to soybeans is only likely during the seedling stage, when environmental conditions result in poor seedling growth and low vigor. Feeding often causes yellowish or whitish spots to appear on leaves and a general stunting of plants. Leaves may be somewhat crinkled when thrips populations are high, and in rare cases, plants may be killed.

Management Considerations: In Tennessee, scouting procedures and treatment thresholds have not been established for thrips in soybeans. Vigorously thumping plants over a white surface or into a white

container is sometimes done in other crops as a means of counting thrips. Insecticidal treatment of thrips infestations is not normally justified unless populations are unusually high and plants are environmentally stressed. No insecticides are listed for the control of thrips in the *Tennessee Insect Control Recommendations for Field Crops (PB 1768)*. However, foliar application of acephate (0.2 - 0.25 lb ai/a) should provide adequate control. Several pyrethroid insecticides are also labeled for thrips control in soybean. Insecticidal seed treatments (i.e., Cruiser® or Gaucho®) will provide control during the first few weeks following emergence.

Photos: Courtesy of Jack Reed and Angus Catchot (Mississippi State University)

Reference:
Handbook of Soybean Insect Pests, L. G. Higley and D. J. Boethel (eds.), Entomological Society of America, 1994.



Thrips injury around leaf veins



Severe thrips injury

This publication contains pesticide recommendations that are subject to change at any time. The recommendations in this publication are provided only as a guide. It is always the pesticide applicator's responsibility, by law, to read and follow all current label directions for the specific pesticide being used. The label always takes precedence over the recommendations found in this publication.

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