

5-22-2006

Recognizing bean leaf beetle injury

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Recommended Citation

Rice, Marlin E., "Recognizing bean leaf beetle injury" (2006). *Integrated Crop Management News*. 1266.
<http://lib.dr.iastate.edu/cropnews/1266>

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Recognizing bean leaf beetle injury

Abstract

As mentioned in [last week's newsletter](#), the bean leaf beetle population in Ames is larger this spring than in the past three years. Larger insect populations usually cause greater amounts of plant injury, which can be very obvious as you are scouting young soybeans. Feeding injury from bean leaf beetles is easy to recognize if you know their characteristic feeding patterns.

Keywords

Entomology

Disciplines

Agricultural Science | Agriculture | Entomology



Insects and Mites

Recognizing bean leaf beetle injury

by Marlin E. Rice, Department of Entomology

As mentioned in last week's newsletter, the bean leaf beetle population in Ames is larger this spring than in the past three years. Larger insect populations usually cause greater amounts of plant injury, which can be very obvious as you are scouting young soybeans. Feeding injury from bean leaf beetles is easy to recognize if you know their characteristic feeding patterns.

Adult bean leaf beetles typically eat round or oval holes in cotyledons and unifoliolate leaves. They will feed initially on the expanded cotyledons, creating small pock marks in either the top or bottom side of the cotyledons. Fresh feeding (less than 12 hours old) is still green and the tissue at the feeding scar is moist. Old feeding (more than 2 days) is often brown, calloused, and dry. Rarely do they make a hole by eating completely through a cotyledon. Beetles also may feed along the edge of the cotyledon.

Beetles feeding on young leaves will eat along the leaf edge, or when feeding in the "middle" of the leaf, they will create small round or oval holes. Occasionally their feeding is extensive and they will consume all of the young leaf. As long as the growing point is not killed, the plant will recover from the injury.

Very few other insects feed on cotyledons and unifoliolate or first trifoliolate leaves. Exceptions are young grasshoppers, which may consume the entire cotyledon or all of the leaf except for the major leaf veins, and cutworms, which also consume large portions of the plant. If you find small round or oval holes—think bean leaf beetles.

Marlin E. Rice is a professor of entomology with extension and research responsibilities in field and forage crops.



Bean leaf beetles sometimes consume large areas of a leaf, but small round holes still characterize their feeding. (Marlin E. Rice)



Bean leaf beetle injury often occurs as small round holes or feeding along the leaf edge. (Marlin E. Rice)



Recent feeding (less than 12 hours) by bean leaf beetles results in small scars that are still moist and green. (Marlin E. Rice)



Cotyledons sometimes have a mixture of new and old beetle feeding. (Marlin E. Rice)



Old feeding (more than 2 days) by bean leaf beetles is brown and calloused. (Marlin E. Rice)



A seedling soybean plant injured by bean leaf beetle adults. (Marlin E. Rice)