8-16-2010

Stink Bugs on the Move

Rebekah Ritson
Iowa State University

Erin W. Hodgson
Iowa State University, ewh@iastate.edu

Stink Bugs on the Move

Abstract
Stink bugs are often more prevalent in soybean fields around this time of year, especially in the southern half of the state. Stink bug nymphs and adults are fluid feeders with piercing-sucking mouthparts. Most species are herbivores but a few are beneficial predators. Because herbivorous stink bugs build up in soybean after bloom, they can be found feeding on developing pods, resulting in shriveled, desiccated seeds. The species below are known to occasionally cause problems for Iowa producers.

Keywords
Entomology

Disciplines
Agricultural Science | Agriculture | Entomology

search

Subscribe to Crop News

Archives

2015
2014
2013
2012
2011
2010
2009
2008

Previous Years

ISU Crop Resources

Extension Field Agronomists
Crop & Soils Info
Pesticide Applicator Training
Agronomy Extension
Entomology Extension
Plant Pathology Extension
Ag and Biosystems Engineering Extension
Agribusiness Education Program
Iowa Grain Quality Initiative
College of Agriculture and Life Sciences
ISU Extension

Integrated Crop Management NEWS

Print story
Email story
Add to Delicious
Atom Feed
Follow on Twitter

Stink Bugs on the Move

By Rebekah Ritson and Erin Hodgson, Department of Entomology

Stink bugs are often more prevalent in soybean fields around this time of year, especially in the southern half of the state. Stink bug nymphs and adults are fluid feeders with piercing-sucking mouthparts. Most species are herbivores but a few are beneficial predators. Because herbivorous stink bugs build up in soybean after bloom, they can be found feeding on developing pods, resulting in shriveled, desiccated seeds. The species below are known to occasionally cause problems for Iowa producers.

Green stink bug (*Acrosternum hilare*)
This pest migrates up from southern states each summer and has only one generation per year in Iowa. They usually begin feeding in soybean in early August. Green stink bug nymphs are black with bright green and yellow or red markings. Adults are light green, shield shaped, and have fully developed wings. They are large, about 5/8 inch long.

Green stink bug nymph and adult. *Photos by Marlin E. Rice, Iowa State University.*

Brown stink bug (*Euschistus servus*)
These nymphs are light greenish brown and will develop brown spots on the middle of the abdomen as they get older. As an adult, the brown stink bug is brown with slightly rounded shoulders. The underside of their abdomen is yellow to light green.

Brown stink bug nymph and adult. *Photos by Marlin E. Rice, Iowa State University.*

In addition to these well-known species, several economically important stink bugs from other regions are now entering the Cornbelt. None have been documented causing serious damage in Iowa, but these species are on the move. Scout carefully!

Brown marmorated stink bug (*Halyomorpha halys*)
Originally from Asia, this pest was first found in Pennsylvania in 1998. Since then, it has been identified in many states in the continental U.S., including Iowa. “Marmorated” refers to their marble-like coloration. Adults have light bands on the antennae and dark bands on the membranous part of the wings. Additionally, they have small, round coppery or metallic blue depressions on the head and pronotum. Adults are about 2/3 inch long. Nymphs have a yellowish to off-white abdomen, and at the last stage before adulthood, the abdomen will have reddish spots. Their eyes are deep red.

Brown marmorated stink bug nymph (*Photo by Gary Bernon, USDA APHIS*) **and adult** (*Photo by David R. Lance, USDA APHIS PPQ*).

Red banded stink bug (*Piezodorus guildinii*)
This pest has been observed in Arkansas, Louisiana, Mississippi, Missouri, and Tennessee and has spread quickly throughout these states. It has presented management challenges, especially in Louisiana, and has a lower economic threshold than the brown stink bug. Nymphs are mostly green with red and black markings. Adults are green and just under ½ inch long; they can be identified by the two strips (one yellow and one dark red, purple or black) across the “shoulders.” When flipped on its back, a spine is visible on the red banded stink abdomen between the third pair of legs.


Red banded stink bug nymph and adult. *Photos by Russ Ottens, University of Georgia.*

Red shouldered stink bug (*Thyanta custator custator*)
This pest has also been reported in several states but is somewhat easier to manage than the red banded stink bug. Adults are green and just under ½ inch long; they have markings that are very similar to the red banded stink bug. However, when flipped over, there is no spine on the abdomen.


Red shouldered stink bug nymphs and adult. *Photos by Herb Pilcher, USDA ARS.*

Remember, not all stink bugs found in soybean are pests. Some are beneficial and will use their mouthparts to pierce the body and suck out the internal fluids of a variety of soybean pests, particularly caterpillars, beetle larvae and adult beetles.

Spined soldier bug (*Podisus maculiventris*)
The most common beneficial stink bug in Iowa soybean is the spined soldier bug. Both the immature and adult stink bugs of this species are predatory and will kill many soybean pests, including green cloverworm. The spined soldier bug adult is easily identified by its sharply pointed “shoulders” and dark brown spot on the wing tips.


Spined soldier bug nymph (*Photo by Russ Ottens, University of Georgia*) **and adult** (*Photo by Marlin E. Rice, Iowa State University*).

Scouting and Economic Thresholds for Stink Bugs

To scout for stink bugs, use sweep nets or shake plants over a drop cloth. Adults tend to aggregate, so sample several areas in each field. Combine counts of older nymphs (larger than 1/4 inch in length) and adults. Economic thresholds for each species are listed in Table 1.

Table 1. Stink bug economic thresholds in soybean pod set and seed set growth stages.

Stink bug species	# of insects/100 sweeps
Green	36 (or 1 per row foot)
Brown	36
Red banded	24

Rebekah Ritson is an entomology research graduate assistant; she can be reached at rritson@iastate.edu or 515-294-1999. Erin Hodgson is an assistant professor of entomology with extension and research responsibilities. She can be contacted by email at ewh@iastate.edu or phone 515-294-2847.
