

Brown marmorated Stink Bug



Photo courtesy Iowa State University

You should know:

- Although BMSB has been found in Iowa, it is not known if a reproducing population exists
- BMSB becomes a nuisance pest both indoors and out
- BMSB has many hosts including soybean and corn
- It can easily be incorrectly identified with other stink bugs commonly found in Iowa

A serious threat

Midwest farmers are faced with another harmful pest from Asia, the brown marmorated stink bug (BMSB). Its name describes its color pattern (marmorated, meaning marble-like or speckled) on its shield-like back, and what it smells like if it's threatened or squished. However, its name does not tell the story of how this new pest is devastating parts of North America.

Over the past decade, BMSB has moved into homes, fields and orchards in 33 states. It has a wide host range similar to Japanese beetle, including corn, soybean, fruits and vegetables. BMSB is a serious threat to agriculture and is wide-spread in the Eastern United States with additional known populations in California and Oregon. As of spring 2011, specimens have been confirmed in a few homes in Iowa, but a thorough survey for this pest has not been conducted.

One thing is for certain, though: BMSB can take a toll on soybeans, although so far yield loss has been limited to the east coast. The insect, which is distinguished by white banding on the antennae and legs, a striped abdomen and a pale underside, tends to feed on soybean seeds through the pod, damaging the yield potential of the state's nearly \$6-billion crop. During seed formation, BMSB can puncture tissue and cause deformations. The seed coat can be damaged, and overall the seeds are smaller and shriveled.

And while BMSB feeding appears to slow or delay development of soybeans, the insect's appetite goes far afield. Corn is on its menu too. So are fruits and vegetables. In fact, there's little it doesn't attack with vigor, piercing and sucking leaves, stems, fruits, and seeds.



Brown marmorated stink bug (Photo courtesy David Shetlar, Ohio State University)



Photo courtesy United Soybean Board

Accurate identification is essential

Scouting will reveal the presence of many species of stink bugs. While most stink bugs are herbivores, one sticks out as beneficial – the spined soldier bug, commonly found in Iowa soybean fields. Both the immature and adult stink bugs of this species are predatory, and will kill many soybean pests.



From left: adult green stink bug (pest); green stink bug nymph (pest); adult and nymph brown stink bug (pest); and adult spined soldier bug (beneficial).



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

The entire agricultural sector is on a steep learning curve, working toward an integrated pest management program to control BMSB. That's a real challenge, because it's different on so many levels.

1. Like another invasive pest, the multi-colored Asian ladybeetle, BMSB isn't limited to the field. It survives the winter as an adult by entering houses and structures, and becomes a noxious pest.
2. Both the immature stage (nymphs) and adults feed on host plants.
3. Generations overlap and can feed throughout most of the summer.
4. Treatment thresholds have not been developed.

It usually takes two to three years for BMSB to become problematic once it is introduced. It usually becomes problematic first in fruit trees and vegetables but, this is Iowa. BMSB may target corn and soybean early in the spring because of the low availability of other hosts. Scouting will prove or disprove that prediction.

This fact sheet was prepared under the direction of Drs. Erin Hodgson and Matt O'Neal, Department of Entomology, Iowa State University.

Want to identify a stink bug on your farm? Send it to the Iowa State University Plant and Insect Diagnostic Clinic. For details, visit: <http://www.ent.iastate.edu/pidc/>

