

Wisconsin Crop Manager

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WI Soybean Yield Contest Entry Deadline Extended to 8/31/12

Shawn Conley, Soybean and Wheat Extension Specialist

Drought conditions across Southern WI had dampened grower enthusiasm to enter the WI Soybean Yield Contest. Recent rainfalls, promising forecasts and rapid soybean recovery, have again piqued grower interest. To facilitate this interest we are extending the entry due date to August 31st to enter the contest. Below please find links for entry forms and rules. Good Luck!!!

[2012 Wisconsin Soybean Yield Contest Rules](#)

[2012 Wisconsin Soybean Yield Contest Entry Form](#)

Vegetable Crop Update 8/1/12 with Supplement

The 19th issue of the Vegetable Crop Update is now available. This issue contains a supplement for tomato and potato growers regarding identifying late blight. [Click here to view this issue.](#)

Stink Bug Nymphs in Corn

Eileen Cullen, Extension Entomologist

Stink bugs are making an appearance in cornfields, particularly the green stink bug. Both the green stink bug, *Acrosternum hilare*, and brown stink bugs, *Euschistus spp.* can be found in corn and soybean fields during August.

Green stink bug nymphs are commonly taken for some type of beetle with concerns of silk or kernel feeding. However, this is not a concern. Stink bugs are a true bug, not a beetle. They have piercing-sucking mouthparts and cannot chew husks, kernels, silks or leaves.

Green stink bug nymphs and adults have been reported this week from corn fields in Lincoln and Marathon counties in north central Wisconsin, and the Pierce and St. Croix County area (near Spring Valley) in western Wisconsin. You have likely observed them in other locations, or other crops such as grapes.



Green stink bug nymphs on corn.
Photo: Isaac Nellesen

Nymphs of the green stink bug are easy to distinguish from other species by black bands on the abdomen and orange markings near the head.

Stink bugs are unlikely to cause economic damage to corn and soybeans in the Upper Midwest. There are no damage relationships or economic injury level established for stink bug on field, seed or processing sweet corn at this stage in the season. On soybeans, the green stink bug is a key pest (feeding on pods and seeds) and economic problem in the southern United States, but rarely in the northern states. Scouting and threshold information are provided below for soybeans.

Feeding Behavior and Field Distribution

- Stink bug nymphs and adults feed with piercing-sucking mouthparts. They seek out seed pods, fruits, grain heads, inserting their needle-like mouthpart, injecting enzymes to dissolve plant tissue, then sucking out “pre-digested” plant fluids.
- Stink bugs cannot clip silks in corn (do not have chewing mouthparts).

- Edges/sides of fields adjacent to wooded habitat are likely spots to find stink bugs, rather than throughout the field or in the middle of the field. (During early summer, stink bugs feed on berries, pods, seed heads in uncultivated, wooded areas).
- Males emit a pheromone which signals to other members of the same stink bug species a call to “clump” together (suitable food, mates, habitat).
- Stink bugs aggregate, and it is more common to find them on field edges and in groups on plants or spots in field sides/edges – rather than distributed throughout a field, or in the middle of fields.
- Stink bugs emit a strong odor as a defense mechanism.

Life History

- Stink bugs overwinter as adults under protected areas like leaf litter, wooded areas, river edge vegetation.
- In the Upper Midwest, stink bugs are thought to migrate northward from overwintering sites in their adult stage. There is usually one generation per year in this region.

Identification

- Stink bug adults have a shield shaped body, with pointed “shoulders”.
- Green stink bug adults are bright green with black bands on their antennae. Nymphs are multicolored (black/green, and yellow or red), rounder in shape (resembling a “beetle”).
- Brown stink bugs are brown, and nymphs are copper/brown. Adults are brown on the upper side, and yellow to light-green on the underside during summer. The brown stink bug is not the same as the invasive Brown Marmorated Stink Bug (BMSB). To date, we have not detected BMSB in corn or soybean (or fruit crops) in Wisconsin. An excellent identification guide to distinguish between stink bug species is available from the Iowa State University Department of Entomology here: <http://www.ent.iastate.edu/soybeaninsects/node/144>



Stink bugs: Stink bugs commonly encountered in soybean: green stink bug, *Acrosternum hilare* [adult and nymph, first two from left], brown stink bug, *Euschistus servus* [adult and nymph, 3rd and 4th from left, respectively], spined soldier bug, *Podisus maculiventris* [adult, last one from the left]. Not to scale. (Photos Marlin E. Rice)

Feeding and Damage Relationships in Corn and Soybeans

- When economic damage occurs in corn, it has been reported on younger plants up to the V15 stage (small ear forming). This work was done in southern states on the southern green stink bug (*Nezaraviridula*). Not much has been reported on green stink bug in corn, probably because this species occurs in very low numbers in the south (and north) until late July or August when corn is usually on its way to maturity and other crops are more attractive to stink bugs.
- Stink bugs on corn are not an economic concern at this time, and no treatment thresholds are established. Insecticide application in corn for stink bug is not recommended, nor expected to recover yield.
- In Soybeans, stink bug nymphs and adults feed primarily on seeds and pods. (They will also feed on soybean stems, foliage and blooms). Punctures can be found as small brown or black spots. Direct feeding can lead to reduced seed quality (young seed deformed, undersized, possibly aborted under heavy stink bug pressure). Older seeds can be discolored or shriveled.
- Stink bug thresholds in seed beans are lower than grain soybeans.
- “Green bean effect” can result. This is an indirect effect of stink bug feeding, delaying plant maturity.
- Again, the damage described above is rarely reported in Wisconsin, – and when noted is likely to be more prevalent in field edges or sides.

Stink Bug Scouting and Thresholds in Soybeans

- Monitor several sites in a soybean field. This is important due to the aggregated field distribution (edge effect) of stink bugs.
- Check 5 different areas of the field (for example, 20 sweep net samples at each of 5 locations).
- Sweep net or drop cloth samples can be used. Sweeps are more appropriate for drilled, narrow row beans. A “shake sample” to dislodge bugs from the canopy on to a light colored cloth placed between rows is suitable for wide row beans.
- Combine nymphs and adults in sample total. **Calculate stinkbugs per sweep (or per row foot) based on the whole field, and not an infested clump at one field edge or corner.**
- Stink bug thresholds range from 1 to 3 bugs per foot of row as soybean pods begin to fill. Based on sweep net samples, for grain soybean 0.4 bugs per sweep (40 in 100 sweeps), and for seed beans 0.20 bugs per sweep (20 in 100 sweeps). (while pods are still green).

Stink bug yield and quality impacts are not usually significant in Wisconsin soybean. The information presented here will help you monitor the situation.

Wisconsin Pest Bulletin 8/2/12

A new issue of the Wisconsin Pest Bulletin from the Wisconsin Department of Agriculture, Trade and Consumer Protection is now available. The Wisconsin Pest Bulletin provides up-to-date pest population estimates, pest distribution and development data, pest survey and inspection results, alerts to new pest finds in the state, and forecasts for Wisconsin's most damaging plant pests.

Issue No.16 of the Wisconsin Pest Bulletin is now available at:

<http://datcpservices.wisconsin.gov/pb/index.jsp>

<http://datcpservices.wisconsin.gov/pb/pdf/08-02-12.pdf>

UW Extension/Madison Plant Disease Diagnostic Clinic (PDDC)

Brian Hudelson, Ann Joy, Amanda Zimmerman, Adam Greene, Andrew Pape, Plant Disease Diagnostics Clinic

The PDDC receives samples of many plant samples from around the state. The following diseases/disorders have been identified at the PDDC from July 21 through July 26, 2012:

| PLANT/SAMPLE TYPE | DISEASE/DISORDER | PATHOGEN | COUNTY |
|---------------------|-----------------------|---|-------------------|
| FIELD CROPS | | | |
| Corn | Heat Stress | None | Vernon |
| Soybean | Anthracnose | <i>Colletotrichum truncatum</i> | Rock |
| | Soybean Cyst Nematode | <i>Heterodera glycines</i> | Juneau, Outagamie |
| FORAGE CROPS | | | |
| Alfalfa | Root Rot | <i>Aphanomyces euteiches</i> , <i>Pythium</i> sp., <i>Fusarium</i> sp. | Price |
| FRUITS | | | |
| Blueberry | Fruit Rot | <i>Colletotrichum</i> sp. | Browns |
| Cranberry | Root Rot | <i>Fusarium</i> sp. | Wood |

For additional information on plant diseases and their control, visit the PDDC website at pddc.wisc.edu.

