

## **Insect Trivia**

***By Ed Lentz – Hancock County Extension Educator***

Insects are one of many challenges farmers face each year. Agronomists and entomologists spend most of time discussing management options to control insects, but since crops are just being planted in area I would like to share some other little known facts about field crop insects:

1. Slugs are not insects and will not be affected by common insecticides. Slugs and snails are gastropods. Slugs prefer no-till fields, but all crop fields may be attacked under certain conditions.

Farmers have to use molluscicide baits for severe infestations. Unfortunately, farmer fields are too big to use the home garden method of preparing beer traps: pour beer in a small tuna can, bury can up to the rim, slugs crawl in at night for the beer, cannot get out, and then drown.

2. Cold weather does not affect many insects since they can overwinter in homes and crop residue. Multicolored Asian lady beetles and brown marmorated stink bugs like our homes.

The European corn borer larvae hibernate in corn residue by producing a type of natural “antifreeze” in their body. They pupate in early spring and later emerge as moths to attack early planted corn.

3. Aphids and stink bugs are not affected by Bt toxins in corn. Toxins are produced by the inserted Bt gene in certain GMO corn.

Bt refers to the natural soil bacteria, *Bacillus thuringiensis*, that has the protein that produces the toxin. The bacterial gene was inserted into certain corn lines, thus GMO.

Organic producers rely heavily on Bt insecticide sprays in controlling damaging caterpillars. Bt does not affect piercing/sucking insects like aphids and stink bugs, and at this time, no naturally occurring Bt toxin has been found for these insects.

4. Farmers are often fooled in identifying bean leaf beetles since they can be tan to brown to red, and may or may not have spots. Red colored ones are often mistakenly called lady beetles; tan to dull green ones, northern corn rootworm beetles; and the spotted ones, southern corn root worm beetles.

However, the bean leaf has one identifying feature: a black triangle behind the head found on all adults regardless of color or spots. Bean leaf beetle generally

are only a problem as a leaf feeder on the first planted soybean fields in an area and later generations may become pod feeders.

5. Corn rootworms and bean leaf beetle larvae feed on soybean root nodules. The nodules are produced by the plant as a result of infection by the Rhizobium bacteria. Inside these nodules the bacteria will produce available nitrogen for the plant and plant provides food for the bacteria.

Farmers do not have to buy and apply nitrogen to soybean fields because of this relationship, a major cost saving. Soybean crops actually need more nitrogen than corn for grain production. Fortunately the nodule feeding by corn rootworms and bean leaf beetle larvae is not severe enough to affect yield.

6. Not all stink bugs are harmful. The spined soldier bug is a beneficial stink bug that feeds on common soybean insects, including other stink bugs. It gives new meaning to inviting a relative over for lunch.

Farmers may confused it for the brown marmorated stink bug. Look at the shoulders for identification. The spined species has sharply pointed shoulders, brown marmorated are more rounded.

7. Kudzu bugs, stink bugs and soybean aphids all have bacteria in their gut that provides nutrients and defends against parasitoids and predators. Only stink bugs and soybean aphids are found in our area at this time.

8. The silver spotted skipper are often found in soybean fields. Skippers are similar to butterflies – key differences between butterflies and skippers are antennae type and the wing position when stationary. The silver spotted skipper is known for having false eyes in the wings, which confuses and fools predators.

Special thanks to Dr. Andy Michel, OSU Extension State Entomologist for providing the original list. Be careful on rural roads, farmers will moving equipment from field to field over the next three weeks to plant crops.