



Bug-Wise

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Three New Insect Pests: Three new insect pests became established in Mississippi this year, two flies and one bug. All three pests come from Asia; all three pests are here to stay; and all three pests are expected to cause significant economic losses in the crops they affect. Following is a brief introduction to each of these new invasive pests.

Spotted Wing Drosophila: Actually, spotted wing drosophila (SWD), *Drosophila suzukii*, was first detected in the state in 2010, but it was not until this year that it began to cause significant damage. This tiny fly is closely related to the common fruit flies that occur around bananas and other overripe fruit. It even belongs to the same genus. The difference is that female SWD have saw-like ovipositors that allow them to lay their eggs in sound fruit that is just beginning to ripen. The small white maggots hatch and begin to develop in fruit that is still on the bush, resulting in yield losses, harvest problems, and lower quality.

The reason SWD is expected to become such a significant problem is that it attacks most of the fruit crops we grow here: blueberries, blackberries, strawberries, peaches, plums, pears, apples, persimmons, grapes, figs, and other fruit as well. Soft-skinned fruits like blueberries, blackberries, and strawberries are especially susceptible to attack. SWD can be controlled with timely insecticide sprays, but these sprays have to be applied just before and during harvest, forcing commercial producers to have to juggle spray schedules, pre-harvest intervals, and harvest times, and forcing backyard fruit producers to spray crops that have heretofore required little or no insecticide use. This pest has already caused hundreds of millions of dollars in losses in other areas of the US, and is expected to become a major pest of small fruit here in Mississippi. See Bug-Wise Newsletter No. 5 of 2012 for more detailed information on SWD and how to recognize and control this pest (go to msucare.com, click on “newsletters”, click on “Bug-Wise” and search the index).

Bermudagrass Stem Maggot: The bermudagrass stem maggot (BSM), *Antherigona reversura*, is a small fly that lays its eggs in the tips of the shoots in forage-type bermudagrass. The resulting larvae bore inside the shoot, feeding down to the first node. This causes death of the last two or three leaves growing out of the end of the shoot. The dead, yellow leaves are easy to spot, and easy to pull out of the shoot. After these leaves are pulled out, tunneling and feeding damage can be seen at the base of the damaged leaves. The small legless, white maggots can sometimes be extracted from damaged tips, but it usually takes a good bit of time and effort to find a maggot.

Adult flies are easier to spot. They are about 1/3 the size of house flies (or about the size of horn flies) and have yellow abdomens with four dark spots on the upper part of the abdomen. Although the flies are small, they are usually present in high numbers in infested fields, and are relatively easy to spot with careful observation. The flies seem to be especially attracted to areas of grass that have been recently walked through or otherwise disturbed.

BSM was first detected in the US in Georgia, in 2010. 2012 was the first year it was recognized in Mississippi, but several affected producers indicated they had observed symptoms in their fields last year, but did not know the cause. Because samples have now been collected from Stone County, Tishomingo

County, Yazoo County and Neshoba County, with reports of damage from many other counties, it appears that this pest is already distributed statewide.

This fly is primarily a pest of bermudagrass grown for hay or forage, and it is not expected to be a problem on bermudagrass in lawns or other turf-type bermudas that are mown frequently. Damage usually “looks worse than it really is,” because the damage is confined to the terminal leaves of the shoots. Research is still needed to determine the overall yield effects of this pest, but it is anticipated that yield losses will be relatively low, even on heavily infested fields. Although there are currently no insecticides that can be used to control maggots feeding inside grass stems, adult flies can be controlled with any of the pyrethroid insecticides recommended for fall armyworms (See Extension Publication 2717, Fall Armyworms in Hay Fields and Pastures). However, multiple sprays may be required to produce a cutting of hay that is relatively free of damage, and the economic benefits of control are yet to be determined.

Kudzu Bug: This non-native pest is known by several names: bean plataspid, lablab bug, and globular stink bug, but kudzu bug seems to be the most popular “common name” for *Megacopta cribraria*. Although they are similar to stink bugs in many ways, including having a strong odor, these insects belong to a different insect family. In fact, they are the only members of the family plataspidae that occur in the US. Kudzu bugs were first detected in Georgia in October 2009 when homeowners contacted their extension insect identification lab about large numbers of unusual, smelly bugs accumulating in and around their homes in a manner similar to Asian lady beetles. Since then, these invasive insects have spread to at least seven other southeastern states. Kudzu bugs were first detected in Mississippi this year. So far they have only been found in two locations, near Vicksburg and Winona. Both detections were on kudzu located near large truck stops, but given the highly mobile nature of this pest, it is likely that other, as yet undetected, infestations are already established in the state.

Adult kudzu bugs are easy to identify because they have a unique body shape. When viewed from above they are roughly square, about ¼ inches long and similar in width, although the abdomen is slightly wider toward the rear of the body. When viewed from the side, the abdomen angles sharply downward toward the rear, giving a wedge-shaped appearance. The body is dark brown, mottled with a light tan and covered with tiny pits.

At first it might seem like a good thing to have an insect that eats kudzu, but kudzu bugs also feed on soybeans and yield losses of 17% and higher have been reported from soybean research trials. They also feed on legume vegetable crops like green beans and butter beans, as well as ornamental legumes, such as wisteria.

Kudzu bugs also have a behavior that causes them to become household insect pests in the fall of the year. They migrate in large numbers and accumulate on the sides and interiors of buildings, vehicles and similar objects in search of overwintering sites. This is the main reason these insects have been able to spread so quickly once they reached the US—they are hitching rides on transport trucks and the freight they are carrying. Homes located near large areas of kudzu are especially prone to these late fall invasions, and complaints from people whose homes are being invaded by these bugs this fall may be one way we learn of other areas where this pest occurs in Mississippi.

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This information is for educational and preliminary planning purposes only. Always read and follow the insecticide label.