



Stone Fruit IPM for Beginners

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Chapter 30 Stink bugs

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Stink bugs

While native stink bugs are only occasionally a pest in stone fruit or they are beneficial predators of other insects, the non-native brown marmorated stink bug can be a serious pest in peach and nectarine orchards. It has become an important late-season pest for growers in Mid-Atlantic states and is emerging as an important pest in fruit production areas elsewhere.

Brown marmorated stink bug *Halyomorpha halys* (Stål)

Hosts

Peaches and nectarines mainly, but will attack other stone fruit.

Time of concern

As fruit begin to develop through harvest.

Damage, symptoms and pest cycle

Brown marmorated stink bugs move around during the season among different habitats, coming out of woodlots and man-made structures in spring to find host plants. There are exotic tree species common in woodlands and especially in more urban areas that are favored in the early season, especially Tree of Heaven. Later they will move into crop habitats, especially soybean fields, vineyards and orchards—almost anything that produces fruit, pods or nuts. Their movement appears to coincide with the development and maturity of seed pods and fruit in these crops. All tree fruits are attacked, but they especially prefer peaches.

In peaches and nectarines, adult feeding during bloom and shuck split can cause the fruit to abort. Feeding later in summer by adults or nymphs can cause a deep cat-facing injury such as that caused by tarnished plant bug (*Lygus lineolaris*) or depressed, dimpled, corky or water-soaked areas on the skin.

Stink bug adults have a broad, flattened, shield-shaped body and a narrow head. Adult BMSB are half-inch long by 5/8-inch wide, with a banded pattern

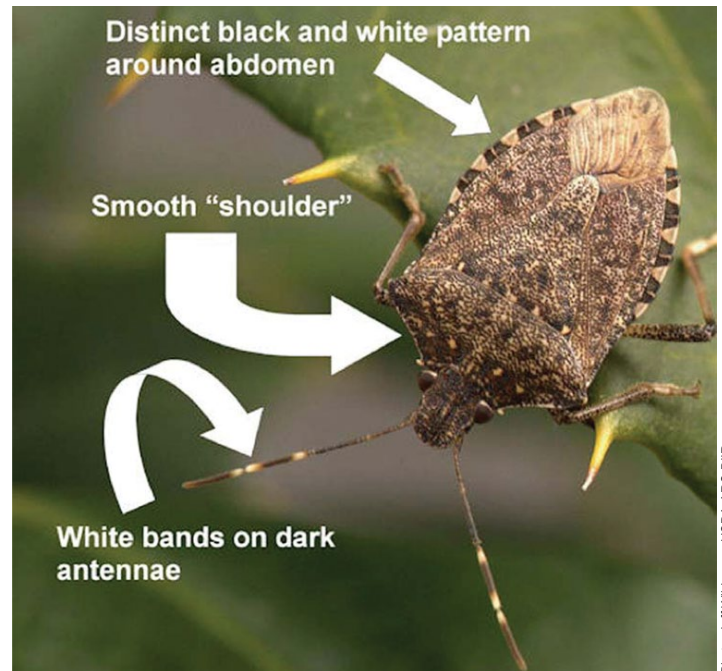


Photo: Jeff Willinger, USDA-ARS-BIIR



Mike Haas, MSU Entomology

Brown marmorated stink bug nymphs on a peach.

along the margin of their abdomen and banding on their antennae and legs. They have smooth shoulders rather than toothed like some of our native species. Eggs are greenish-white in color and laid in a cluster of up to 28 eggs on the leaf underside of a preferred host. There are five nymphal stages. The first nymphal stage is black and red. The other four nymphal stages are brown like the adult.



Adults blend in with this peach branch.

IPM steps for beginners

This is still a new pest outside of the Mid-Atlantic states, so if control is needed, time insecticides to kill immigrating adults as they appear in the orchards to prevent feeding damage and subsequent mating and egg laying.

In general, you will likely find the pest in the edges of an orchard. Use limb jarring over beating trays to help determine whether they are present. There are also commercial lures that can be paired with various traps to attract them for recording their number from week to week. Traps are best used between two habitats, like between a woodland and the crop of concern. Thresholds are still being developed in many crops that use these traps.

Ready for more precision

For more information on how to monitor and manage brown marmorated stink bugs, see Michigan State University Extension bulletin E0154 "Michigan Fruit Management Guide," or stopBMSB.org.



Above and to the right are photos of a free-standing pyramid style trap. Traps are baited with an aggregation pheromone that attracts BMSB and then captures them in the clear top.



The Rescue brand trap is a pyramid style trap that must be attached to a tree trunk or post.