

Keep an Eye Out for Brown Marmorated Stink Bug

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The brown marmorated stink bug (BMSB), an invasive insect pest of apples, peaches, grapes, nuts, vegetable crops and more, has been on our minds and in our crops and homes for years now. Many growers we've spoken with in NY are most familiar with this pest because of their habit of overwintering in homes and barns, often aggregated in large numbers. However, increasingly often, we're speaking with growers who also see them or their damage in orchard blocks. While we expect there to be low BMSB pressure in Northern NY, they are established in the Hudson Valley, and are believed to now be a nuisance to growers as far north as the Mohawk Valley and Saratoga County.

The management threshold is generally considered to be a cumulative 10 BMSB adults per trap since the last spray (so if you trap 6 in a week, and then trap 5 the next week, it would be considered time to spray again). BMSB damage can be difficult to identify, even minor stink bug symptoms at harvest can be much worse coming out of storage, and basically no visible symptoms show up for at least a week after feeding. We also have many native stink bugs across New York, which can also cause similar damage to fruit late in the season. Because of those factors, it is not well understood at this time how economically important BMSB feeding is in NY apples, and how damage correlates to trap catch numbers.



External stink bug feeding damage at harvest. Photo by Jim Engelsma.



Internal damage, probably caused by stink bug in Empire apples. Photo by Phil Schwallier.

It is important to consider variety when prioritizing scouting time for BMSB. Previous work has shown BMSB are more attracted to, and thus tend to damage more, Honeycrisp apples or varieties with Honeycrisp parentage. This is thought to be due to the different volatile profile or scent of Honeycrisp as well as timing in the season (apples harvested later are more likely to coincide with times when BMSB is prevalent in the orchard). Another aspect of BMSB ecology to consider is if you have Tree of Heaven (*Ailanthus altissima*) on your property. Similar to BMSB itself, Tree of Heaven is an invasive to the United States from China and it is the preferred host of BMSB, which can increase pressure on your property. If you haven't already located and removed this host from your property, now is as good a time as any as it has recently been discovered that another invasive from China, the Spotted Lanternfly, also uses Tree of Heaven as its preferred host.



Tree of heaven is another invasive, and is the preferred host of BMSB. Photo courtesy nature.org.

This summer, in an ARDP funded research project, we are going to assess late season damage by BMSB in apples throughout the state of New York. There are two parts to our research. First, we will be forcing damage from colony-reared BSMB of varying ages, by caging the stink bugs onto fruit with Honeycrisp parentage and documenting damage symptoms over time and after storage. Second, we are monitoring BMSB at eight orchards across the state, and then will conduct a damage assessment at harvest, to begin to address how trap catch numbers correlate to damage. Please help us out by letting us know if you see stink bugs in your orchards, and if you see any BMSB feeding damage as the season progresses!