

Overview of stink bug monitoring project in Ohio, 2020

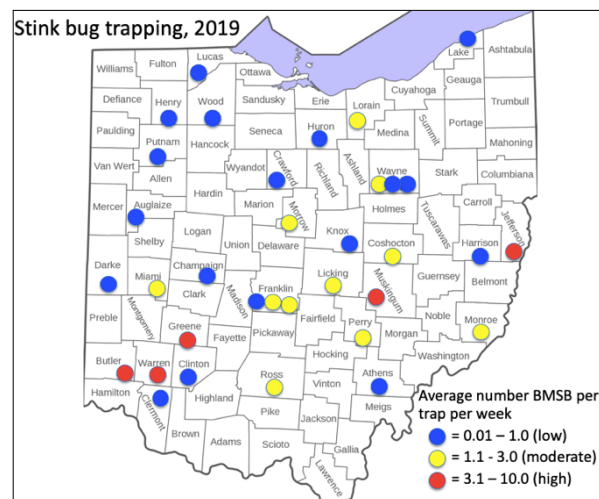
Project objective: Determine the current distribution and relative abundance of the brown marmorated stink bug on farm sites around Ohio.

Background: the brown marmorated stink bug (BMSB) is an invasive species that is native to Asia. It was first detected in the USA in Pennsylvania in 2001. From there, it spread throughout the mid-Atlantic region and beyond, where it has caused significant crop injury. It is also a nuisance pest when it invades homes and buildings in the autumn in its search for a protected place to overwinter. It is now found in 43 States in the USA, and it has also become a pest in several European countries.



Crop damage: BMSB causes injury by sucking sap from fruits and stems. Host plants include peaches, apples, raspberries, blueberries, blackberries, grapes, bell peppers, eggplant, sweet corn, field corn, soybeans. It also feeds on landscape trees such as catalpa, redbud, tree of heaven, Japanese tree lilac, Japanese pagoda tree, Kentucky coffeetree, and maples.

Status of BMSB in Ohio: The first detection of BMSB in Ohio was in 2007 in Columbus. Within the next few years, infestations were reported from Youngstown and Cincinnati. As of the end of 2019, we have confirmed reports of its presence in 63 of Ohio's 88 counties, although the infestations in many of these counties are still quite light, without significant damage to crops. BMSB density in traps in 2019 is shown in the map to the right.



Monitoring by traps: To detect the presence of BMSB, we have had pheromone traps deployed at sites around Ohio every year since 2011, but the trap type has changed from year to year. In 2011-2013, the lure that was available was not very effective, especially in early summer. In 2014, an improved lure became available, then in 2015 a greatly improved lure became available. The trap in which the lure is placed has also changed several times; since 2017, it is a clear double-sided sticky panel clipped to a 5-foot wood post, as shown in the image to the right.

Nation-wide monitoring program: Ohio is one of 15 States that is involved in a USDA-funded research and extension project focused on better understanding and managing this new stink bug in specialty crops, starting in 2017. Part of this project is devoted to monitoring stink bug populations by a standardized type of trap, at many sites in various ecoregions across the USA.

Plans for Ohio, 2020: We will have traps at fewer sites and for a shorter time this year. We will focus on the most critical period from mid-August until the end of September. The cooperators will check traps every one to two weeks, and post the number of bugs caught on a website that is available to view by anyone with the link.



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