

Subject: New England Grape Notes – July 29, 2013
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UMass Grape Notes ~ July 29, 2013

Spotted Wing Drosophila and Brown Marmorated Stink Bug are two new invasive pests that may cause problems in grapes in Massachusetts. UMass Extension is

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monitoring these pests with a statewide trapping network and reporting updates to <https://extension.umass.edu/fruitadvisor/>. For specific information on identification, trapping and management go to <https://extension.umass.edu/fruitadvisor/spotted-wing-drosophila> and <https://extension.umass.edu/fruitadvisor/brown-marmorated-stink-bug>. See informative article from Long Island below.

Spotted Wing Drosophila (SWD) and Brown Marmorated Stink Bug (BMSB) in Grapes

Faruque Zaman, Cornell University

Ed's note: *Spotted wing drosophila is the fruit fly species of concern as it can initiate damage. We definitely have other fruit fly species in our vineyards as well; however, they are opportunistic and attack already-damaged fruit.*

Spotted Wing Drosophila (SWD): First detected in 2008 in the US, Spotted Wing Drosophila (SWD), *Drosophila suzukii* Matsumura, a new fruit fly pest in New York causing extensive losses in soft skinned fruits. Spotted Wing Drosophila is native to Asia but has now spread rapidly throughout many of the fruit growing regions of the United States. SWD is capable of laying eggs in grapes as well, but grapes are not highly preferred.

Damage by spotted wing drosophila to various commercial and wild (non-crop) fruits was studied in 2012 at eastern Long Island farms and in adjacent non-crop areas.

Grape damage was assessed intensively. From August to October, 72 four-ounce ripe or nearly ripe grape fruit samples were collected periodically from different vineyards in Eastern Long Island. No SWD egg laying were observed in berries of early grape cultivars 'Pinot Noir' and 'Chardonnay'. However, starting in late September a few (2%) 'Merlot' berries were found to have SWD eggs and by mid-October levels slightly increased (5%), with infestations found in both 'Merlot' and 'Cabernet Sauvignon.' Lack of other preferred hosts in early fall might also put late cultivars at higher risk of infestation. Other fruit characteristics (color, ripeness, skin toughness, etc.) may also influence fly preference. Consistent with the low levels of infestation observed in grapes there was no evidence of damage or deterioration at or before harvest and loss of fruit quality related to

SWD. Risk to grapes so far appears to be low, also seen in observations elsewhere. However, SWD can clearly attack and complete development in grapes. Monitoring and fruit survey will be continued in 2013 grape season to determine whether there is need for management.

Insecticides Delegate WG, Entrust SC, and Entrust Naturalyte have recently been granted 2ee label exemptions for SWD control in grapes. Organophosphate (Malathion 5EC, Malathion 57%, Malathion 8 Aquamul), and pyrethroid (Danitol 2.4EC) are also effective and has the 2EE label exemptions for SWD control in grapes. The rapid life cycle and mobility of this insect may necessitate multiple applications immediately prior and during harvest. Consider seasonal maximum use, REI and PHI information on the pesticide label. Visit <http://www.fruit.cornell.edu/spottedwing/pdfs/TreeFruitGrapeSWDinsecticides2013.pdf> for more information on insecticides labeled for controlling SWD.

Brown Marmorated Stink Bug (BMSB): In 2013, Cornell Cooperative Extension of Suffolk County joined with regional collaborators around the northeastern US to monitor brown marmorated stink bug, in tree fruit orchards using newly developed lures to enhance trap attractiveness. BMSB traps placed in two peach and apple orchards since April trapped only three males in peaches. No established populations (eggs or nymphs) of BMSB have yet been reported in Suffolk County. We found a few reports of adult BMSB detection mainly from homeowners. Because the BMSB initially feeds on ornamental plants and overwinter inside houses, homeowners are likely to be the first to detect new arrivals. Stinkbug nymphs and adults seen recently have been identified as green stink bug, brown stink bug (the native species), and spined soldier bugs – a beneficial predator. At this point BMSB populations in our region do not pose an economic threat. Concern about contamination from stink bug odor- recent research suggests in grapes it seems there isn't the same issue of contamination (from the stink bug defensive chemical) as there is with *Harmonia axyridis*, the multicolored Asian lady beetle. MALB contamination of wine, while not widespread, has caused economic losses in some northeastern and Canadian regions. (**Source:** *Long Island Fruit & Vegetable Update. No. 17 July 25, 2013*)

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