

## Spotted wing *Drosophila* (*Drosophila suzukii*) in New Hampshire, 2014

Alan Eaton and George Hamilton, Sept. 16, 2014

We monitored SWD traps on 25 farms this year, in Hillsborough, Rockingham, Strafford, Grafton, Merrimack, Carroll and Sullivan counties. We set traps out when crops were ripening, and removed them when harvest was completed. At most sites we also had one or two traps in the woods or field edges as well.

We stayed with the same bait & modified solo cup trap we used last year that showed such improvement over 2012. It included the grape juice/apple cider vinegar/ethanol liquid bait, plus (in a separate container, floating in the liquid) the flour/oil/yeast/water bait. We kept traps hung among leaves, not exposed. As before, we counted only the males in the traps, since this is the way growers would use them.

First trap captures in 2012 were July 11<sup>th</sup>. In 2013 it was July 2. This year it was July 14. Catches were very slow to pick up this year, and the rate of increase week to week was lower than we expected. Overall, catches were significantly lower than in 2013, and traps in the lakes and north country had much lower catches, as in 2013.

The blueberry rearing study at the UNH Woodman farm was repeated, just as we did in 2012 and 2013. This is in a 0.5 acre highbush blueberry planting that has not been treated with insecticide for many years. The total numbers emerged were far lower than those in 2012 & 13.

We also collaborated with Tracy Leskey, testing pesticide-treated spheres to reduce SWD numbers in bramble fruit on four NH farms in Concord, West Lebanon and Plainfield.

As happened in 2012 & 13, our cherry and “June” strawberry crops were largely unaffected by SWD. Blueberries & brambles were the crops most at risk (in part because they have the highest acreage). We did not trap in Cheshire or Coos counties. Because of concerns about sensationalizing reporters and farm confidentiality, we did not post catch data anywhere, but gave management summaries through our usual information routes. We might consider posting the data next year.

In the winter of 2012-13 and again in 2013-4, we conducted online surveys of commercial growers to assess the SWD losses in New Hampshire. [Only direct crop losses, not including spray costs, increased labor, loss of markets, etc.] The survey showed a \$1.516m crop loss from SWD in 2012. In 2013, those losses dropped by 2/3 to \$526,000 while SWD trap catches stayed very similar to those in 2012. We plan to repeat the survey this coming winter.

Currently in progress is a study looking at SWD numbers (measured by trapping) in spots where berry-bearing invasive plants have been controlled, compared with sites where they have not. This was proposed by a colleague working for Rockingham County Conservation District.

George Hamilton has been drawing attention to pruning as an under-utilized management technique, especially in blueberries. Adult SWD's prefer to stay in the canopy, and too-thick bushes result in poor spray penetration. George's video on matching the sprayer to the plant (filmed in a NH highbush blueberry field this summer with colleagues from Penn State University and Ontario Ministry of Food & Ag) will be available this fall at Penn State Pesticide Safety Education System website.