



Guidelines for Checking Fruit for SWD Larvae in the Field

Laura McDermott, Extension Associate, Eastern NY Commercial Horticulture Program
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These suggestions are based on techniques developed by a variety of research scientists from public institutions that are listed below.

Tips to make monitoring easier:

- The size of the fruit affects the time it takes for larvae to emerge into the salt solution. Larger fruit take longer. Still – 15 minutes should be enough time to allow SWD larvae to emerge even from a large-fruited strawberry sample.
- A light infestation with 1st instar larvae will be very difficult to see with the naked eye. You will likely need a magnifier if not a dissecting scope in this situation.
- The better the lighting the easier it will be to see the larvae.
- A video produced by Peerbolt Consulting of this process can be found at: <http://www.berriesnw.com/videos/baggieTest/2010SaltBagTest.htm>

Materials needed:

- Re-sealable gallon sized plastic bags
- Salt
- Water
- 9" x 13" dark or black-painted pan
- 1/4" hardware cloth, cut to fit in the pan
- A weight such as a metal rod
- Hand lens
- A direct light source

Checking Fruit in the Field

- Collect a sample of fruit (strawberries: 25-30/sample, caneberries or blueberries: 75/sample)
- Put fruit in a gallon-size re-sealable plastic bag.
- Pour in salt water solution so that all fruit is covered in the bag.
Salt Solution: 1 cup of salt per gallon of water.
- Mark bag with field code/date.
- For a quick check in the field (after 15 minutes), hold the bag up to light and look for larvae.
- To conduct a more thorough examination, pour the fruit and salt solution into a shallow pan. Use a piece of hardware cloth to hold the fruit down making it easier to separate the larvae from the fruit. This is the method that fruit processors or storage operators could use to examine fruit on a larger scale inside a building.

Information compiled from work done by:

Caryn Michel and Dean Polk at Rutgers University

Bruck et al, Washington State University, mtvernon.wsu.edu/ENTOMOLOGY/pests/FINAL-SWD-Blueberry-Management-Plan-5-26-2011AJD.pdf

Celeste, Walty, Oregon State University

Isaacs et al, Michigan State University, www.ipm.msu.edu/uploads/files/SWD/ManagementRecommendsBlueberry-May2012.pdf.