

Spotted Wing Drosophila Traps – Monitoring Adult Flight



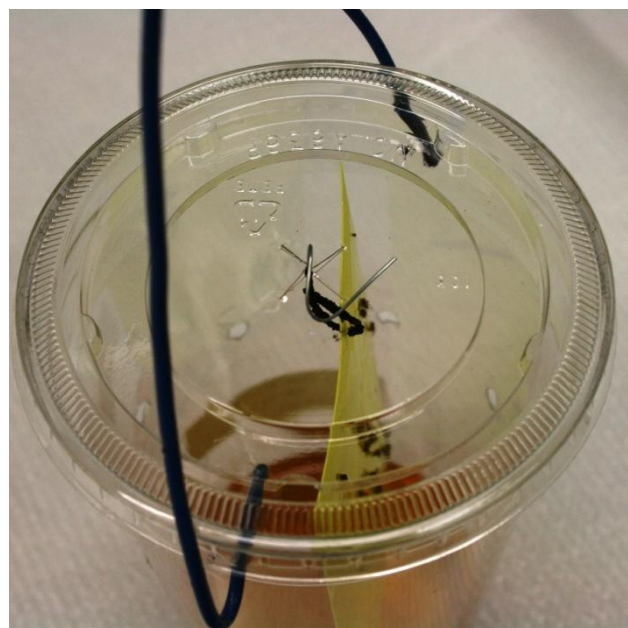
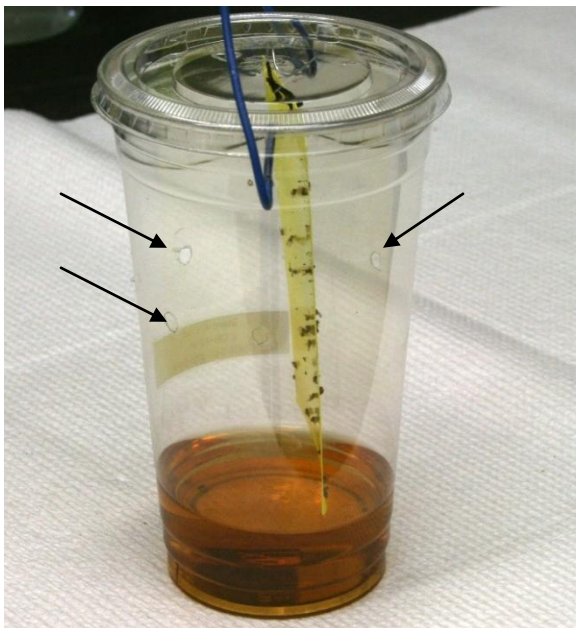
Monitoring the adult flight of SWD will be important before grape fruit development this spring. Presence of the pest is the first step to determine future management strategies. Monitoring can take place immediately this growing season and persist throughout the season. All growers are encouraged to do their own on-site monitoring for this pest.

Supplies

- Clear plastic disposable cup
- Fitted plastic cap
- Yellow sticky trap
- Metal hanger or wire
- Apple cider vinegar or sweet white wine

Steps to constructing trap:

1. Drill 4-5 3/16-3/8" holes in side of container for entry of the flies. Leave 3" pour space for vinegar.
2. Cut a cross section in the top of the lid to allow hanging of the sticky trap
3. Affix a twist-tie or wire to the top of a yellow sticky card and affix to the top of the lid for easy removal.
4. Pour 1 1/2" apple cider vinegar in the bottom of the cup, making sure to keep the sticky trap above the liquid.
5. Close the top and place the traps in areas you wish to monitor in the vineyard.
6. One trap will service one acre. Place in or near the fruiting wire of the trellis or on the ground later in the season where thinned fruit may persist.



Monitoring

Begin monitoring when the daily temperature reaches $> 50^{\circ}\text{F}$ for several days. Collect the sticky traps on a weekly basis for observation. Identify and count flies on yellow trap and in solution. These are larger than the typical *Drosophila melanogaster* fruit flies (also known as vinegar flies) and males are easily distinguished by the black dot on their wings. A 30X hand lens may help you identify the black dot on the wings (males only) and the red eyes. They may also be seen with the naked eye. Females do not have these black dots on the wings, but have a distinctive saw-like ovipositor on their posterior. For more detailed pictures of the male and female, see the following document online:

<http://wine.oregonstate.edu/files/files/drosophila%20zudikii.pdf>

Replace the sticky card and vinegar once a week.



Attaching the trap to the top of the trap allows for easy access and counting.



The black dot on the wing of the SWD male can be seen relatively easily as pointed out by the arrows above.

Management

Monitoring for SWD in vineyards will help determine its presence and management, if required. Although no significant losses of winegrapes were documented in 2009 due to this pest, there are some reports of the SWD presence in un-harvested crop and in pomace piles during October/November 2009.

Once you identify presence of the SWD, you can refer to management guidelines online <http://swd.hort.oregonstate.edu/>. Because this is a new pest to the west coast and is currently under significant research, the current management recommendations are preliminary and may change in the future.

We are still uncertain as to how this pest may impact winegrape fruit and production. The best method is to monitor and manage the pest before it becomes a significant problem for the grape and other fruit industries in the state.

The research and Extension efforts currently in place are being conducted by OSU, USDA-ARS and ODA. For all past and new information on this pest, visit <http://swd.hort.oregonstate.edu/>.



Patty Skinkis, PhD
Viticulture Extension Specialist
Oregon State University
skinkisp@hort.oregonstate.edu