Spotted Wing Drosophila Update for 6-27-12

This Update is a collective effort. It is composed by Peerbolt Crop Management with contributions from OSU, USDA-ARS, WSU, B.C. Ministry of Agriculture and various Northwest berry industry people.

SWD Information Websites

Peerbolt Crop Management | Oregon State Univ. | B.C. Ministry of Ag. | WSU Westside | WSU Eastside

Oregon and SW Washington SWD Alert

- *Click here for the recently issued SWD alert from Oregon State posted on the Oregon Blueberry Commission website.*

Strawberries

- Strawberries are past peak harvest. We continue to recover drosophlila larvae from sporadic field fruit samples with numbers increasing over last week.
- A big majority of fields tested showed no larvae in their samples.
- Growers are advised to monitor the fruit closely for SWD larval contamination and evaluate whether an insecticide application is needed.
- A post harvest insecticide application is advised if the field is adjacent to other berry or stone fruit crops to prevent the strawberry field from being a breeding site for SWD.

Raspberries

- Harvest is just beginning in SW Washington and Oregon. There's a lot of ripe and/or ripening fruit in all fields.
- We are picking up larvae in some of the fruit samples taken from this early fruit. Most samples remain free of SWD larvae.
- In raspberries with any SWD larvae in them, the fruit softens & falls apart much more visibly than in strawberries. Pay particular attention to berries that look like they're prematurely soft/over ripe.
- ***Unlike the previous two seasons when SWD larvae were not found in raspberries until late season, there's very strong evidence that even first picks this year could see SWD larval contaminants.***
- It is advised to monitor fruit quality closely and take appropriate actions to prevent crop losses.

SWD Risk Factors

It's becoming clearer which field characteristics increase the chances of having SWD infestations. This is still a work in progress but observations over the last three seasons indicate the following:

Increased Risk:

- Borders of field have wild blackberries, wild cherries or other favored overwintering habitat.
- Field is relatively small in size and is part of a mixed crop farm with other susceptible crops adjacent (Example: 1-3 acre plantings of strawberries, raspberries, blueberries with 5 acre cherry and peach orchards).
- Caneberries appear to be preferred over blueberries and strawberries.
- The later the harvest season the more the risk with late season caneberries the most susceptible.
- U Pick/ Fresh market fields that are difficult to treat with insecticides on a regular schedule.

Decreased Risk:

- Field is bordered by grass seed fields or other non host plantings.
- Field is relatively large and doesn't border other fields of SWD susceptible crops.
- Harvest season is earlier (Example: Duke is lower risk than Liberty in blueberries).
- In general, caneberries are higher risk than blueberries. But the late season blueberries are under a very high risk due to the higher insect populations.

SWD in the news

- (Oregon) Uneven spring a mixed bag for Douglas County growers (6/22, NR Today)

- Spotted Wing Drosophila found in Connecticut (FGN, 6/21)

Updated SWD Resource

- Joe DeFrancesco, OSU pesticide specialist, has updated the lists of SWD pesticide options for Oregon and Washington berry crops originally done in April of 2011.
  - For the updated blueberry list click here.
  - For the strawberry list click here.
  - For the caneberry list click here.

Regional Monitoring *(South to North)*

Oregon Public Scouting Program count for the week ending on 6/22

(Number of traps checked this period in the crop in parentheses).

This scouting program and reporting system are being funded by a USDA SCRI grant, and a Northwest Center for Small Fruits Research grant

- **Linn County: Apples(1):** none. **Blackberries (7):** none. **Black Raspberries (2):** 1 male/ 1 female. **Blueberries (7):** no males/1 female. **Other caneberries (4):** no males/ 3 females. **Cherries (2): 9 males/15 females**. **Grapes (2):** none. **Honeysuckle (1):** none. **Peaches (2): 1 males/11 females. Pear (1):** 1 male/3 females. **Plums (2):** none. **Raspberries (3):** none. **Strawberries (13):** no males/1 female. **Tayberries (1):** none. **Wild Habitat (19) 25 males/149 females.**
- **Benton County: Nectarines (1):** no males/1 female. **Peaches (2):** 1 male/no females. **Raspberries (1):** none. **Strawberries (1):** none.
- **Marion County: Blackberries (2):**1 male/2 females. **Blueberries (5):** none. **Strawberries (22):** none. **Raspberries (1):** none. **Cherries (3): 34 males/49 females.**
- **Clackamas County: Blackberries (2):**3 males/no females. **Blueberries (8):**1 male/no females. **Strawberries (2):** 3 males/ no females. **Raspberries (1):** 3 males/1 female. **Tayberries (2):** no males/1 female.
- **Yamhill County: Blackberries (4):**none. **Blueberries (1):**1 male/1 female. **Cherries (3):** 1 male/ 1 female. **Strawberries (9):** none.
- **Multnomah County: Blackberries (4): 3 males/8 females**. **Boysenberries(1):**none. **Raspberries (2):** none. **Strawberries (7):** 4 males/ 5 females. **Cherries (1):** no males/8 females. **Salmonberry (3):** 6 males/2 females.

Southwest Washington Public Scouting Program for the week ending on 6/22

- **Clark/Cowlitz/Lewis Counties: Blackberries (1):39 males/33 females. Raspberries (17): 12 males/22 females. Strawberries (9): 16 males/18 females. Cherries (4): 49 males/15 females.**

Eastern Washington

- Click here for the WSU Eastern Washington SWD reporting site.
- **Latest report from the this site--Monday, June 25:** "**SWD in the Chelan/Manson region.** A trap sample collected on June 21st was found to contain a female SWD."

Western Washington--WSU Extension Scouting Program

This scouting program and reporting system are being coordinated by Whatcom County Extension and funded in part by the Washington Red Raspberry Commission.

Click here for the program's website. "A limited number of raspberry fields are now being scouted covering a diverse range of area in Whatcom, Skagit, and Pierce counties." For more information contact Colleen Burrows at 360-676-6736 x 22 or cburrows@wsu.edu.

Latest reports from this site:

- **June 12:** "1 female found in Bayview region of Skagit County."
- **June 8:** "23 female and 9 male SWD were found in Lynden region of Whatcom County."
- **June 7:** "1 female found in Sumas North region. 1 male and 3 females found in Sumas South region."
- **June 5:** "First female SWD was found in LaConner region of Skagit County. She was an overwintering female with shriveled eggs."

British Columbia

- SWD Management in BC Berry Crops (with insecticide options listed)
- Click here for the SWD Ministry of Agriculture site.
  - Click here for the June 22nd report for coastal B.C. From that report: “Only 2 SWD flies caught in traps in blueberry fields, and none in the raspberry fields in this project, however: 21 SWD flies caught in a separate project, including hedgerow and field edge traps (108 traps in total), and SWD flies are emerging from wild salmonberry collected June 6-8. “
- Click here for the B.C. Southern Interior Valleys report for the week of June 15-21.

Guidelines for checking the fruit for SWD larvae

These suggestions are based on techniques that various public researchers and industry personnel have been developing over the past couple of years. If any of you have ideas for improvements to these protocols, please pass them along. We’re all in this together.

Suggested methods:

For scouts/field checking (*We have created a video of this larvae-checking method.****):***

1. Collect a sample of fruit to be tested (Strawberries: 25-30 per sample, Caneberries/blueberries: 75 per sample)
2. Put fruit in a gallon size sealable plastic bag.
3. Pour in enough of the salt water solution to allow the fruit to float (solution is: 1 cup of salt per gallon of water).
4. Mark bag with field code/date.
5. For a quick check in the field after a designated period of time (at least 15 minutes) holding the baggie up to light. This helps to see the larvae in the solution
6. For a more thorough examination, after a designated period of time (at least 15 minutes), pour the fruit and salt solution out into a shallow tray and use a piece of wire mesh screen to hold the fruit down making it easier to separate the larvae from the fruit.

For processors or fruit handling stations:

1. Collect a two pound sample of fruit to be tested.
2. Put the sample into a shallow tray and cover with the salt water solution (1 cup of salt per gallon of water).
3. After a designated period of time (at least 15 minutes) use a piece of wire mesh screen to hold the fruit down to make it easier to separate the larvae from the fruit.