

Section IX

Extension & Consulting: Updates/Notes from the Field

SPOTTED WINGED DROSOPHILA IN WILLAMETTE VALLEY BERRIES: 2011

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Commercial berry fields and wild brambles were trapped for Spotted Winged Drosophila (*Drosophila suzukii*) using lidded 16 oz. plastic cups, drilled with 5 mm holes and baited with apple cider vinegar. Samples of berries were also collected and held in paper bags to rear adults and check for infested fruit. Trapping was continued in the backyard site trapped in 2010, using the same trap locations.

Seasonal population fluctuations in the backyard site were similar to 2010. Only eight SWD were trapped from February through July. Traps caught flies each week in August and September, but catches were low (<0.5/trap/day) until the end of September. There was an abrupt increase in trap catches in early October and trap catches remained high (60 to 600/trap/day) until the beginning of December. Trap catch plummeted to less than three/trap/day by mid-December. A total of 65701 SWD were trapped from Feb. 1 through Dec. 19, with more than 98% caught in October and November. These traps caught twice as many SWD as in 2010.

SWD trap catches in commercial berry fields and wild brambles followed the same pattern as the backyard site. Only a few flies were trapped from May through July, and trap catches increased in August and September. Large numbers of flies were caught in traps left in wild brambles through October and November. SWD were caught in all blackberry fields and in 2/3's of the blueberry fields that were trapped. SWD were only trapped in 1/3 of the strawberry fields; but the traps were removed from strawberries more than a month earlier than in blackberries or blueberries. Overall, the 2011 season had a greater percentage of berry fields infested with SWD and higher numbers of flies trapped than in 2010.

SWD were reared from fruit in 80% of the blackberry fields and 17% of the blueberry fields that were sampled. All but one of these fields received insecticide sprays for SWD. In two cases SWD were reared from fruit collected during the week that the first flies were trapped. None of the commercial fields with infested fruit had economic losses to SWD. SWD

were also reared from two strawberry fields and from two sites with wild brambles (Himalayan blackberry).

Additional Observations:

On 9/22/2011, samples of wild Himalayan blackberry at different stages of maturity were collected for rearing. The trap at this site caught 43 SWD during the preceding seven days. Large numbers of SWD emerged from all of these fruit samples with 4/berry in red fruit and 13/berry in ripe fruit. A second *Drosophila* species also emerged and was identified as *D. melanogaster* by Josh Vlach (ODA). Oddly, more than 75% of 269 *D. melanogaster* were found in the sample of red fruit and only four emerged from ripe or overripe fruit.

At the backyard site two identical traps placed 20m apart have had a five-fold difference in SWD catch in 2010, and a ten-fold difference in 2011. The lower counts are from a sparse row of raspberry canes and the higher counts are from a trap placed in the dense shade of a patch of Oregon grape. Placement may be as critical as trap design or bait for increasing SWD trap catches.

SWD Trapping Summary

2011

Crop	No. Traps	No. Fields	No. Fields w/ SWD	No. SWD Trapped	Trapping Period	Dates SWD Trapped
Blackberry	31	7	7	430	20-Apr to 8-Sep	1-May to 8-Sep
Blueberry	47	15	10	68	22-Apr to 31-Aug	6-Jun to 31-Aug
Strawberry	86	24	9	18	30-May to 28-Jul	8-Jun to 28-Jul
Total:	164	46	26	516		
<u>Other Sites</u>						
Wild Bramble	4	4	4	11750	20-May to 4-Nov	26-May to 4-Nov
Backyard	4	1	1	65701	1-Feb to 19-Dec	20-Mar to 19-Dec

SWD Rearing Summary

2011

Crop	No. Fields	No. Fruit Samples	No. SWD Infested Samples	% SWD Infested Fields
Blackberry	5	10	7	80%
Blueberry	12	21	2	17%
Strawberry	2	5	3	-
<u>Other Sites</u>				
Wild Bramble	2	7	7	100%
Backyard	1	8	4	-