



New York Berry News

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July 29, 2013

2013 SWD Special Edition

Editor's Note: Trap catches and count numbers until recently have been relatively low, limited to a few counties across the state and very slow to increase; more to the point now perhaps is the recent first trap catches in several NY counties; also of note is the fact that count numbers are increasing in those counties where trap catches were previously reported. More disturbing perhaps is the fact that the first reports of SWD reared out of infested fruit collected earlier this month are starting to come in. Growers need to be already on board with their SWD monitoring and continue to be vigilant with their protective programs. What follows are the most recent SWD blog posts and an updated product list for SWD management in commercial berry crops.

To keep up to date on trap catches and fruit infestation finds and other breaking news on SWD and its management visit the SWD blog often: <http://blogs.cornell.edu/swd1/>.

Onondaga and Cayuga Counties – First Reports

July 29, 2013. This just in, first reports of positive trap catches of SWD in Onondaga and Cayuga Counties...official trap catch summaries on these counties to be posted shortly on the SWD blog here: <http://blogs.cornell.edu/swd1/>.

Tompkins County – First Report

July 29, 2013. Three male and 1 female SWD were collected in the whole wheat dough combo trap in a blackberry planting in Tompkins County on 7/24/13 by Johanna Elsensohn, Greg Loeb's lab, Dept. of Entomology, Cornell University. The traps had been set two weeks prior. (Accumulated GDD 1447, day length 14:40)

Clinton County – First Report

July 29, 2013. Twenty-one male and 12 female SWD were caught in two [traps](#) set in the hedgerow near a blueberry planting in Clinton County by Amy Ivy, Cornell Cooperative Extension Association of Clinton County. No SWD were caught in the two traps in the blueberry planting. This finding may underline how poorly the trap bait competes with fruit for SWD's attention. (Accumulated GDD 1344, day length 14:52)

Rensselaer County – First Report

July 26, 2013. Laura McDermott, Eastern NY Horticulture Program, Cornell Cooperative Extension, reports four male SWD caught in [traps](#) set in one location in Rensselaer County and three male SWD caught at another location. All the traps that caught SWD were set in hedgerows of berry plantings of blueberry and day-neutral strawberry and were collected on July 22. (Accumulated GDD 1287, day length 14:44).

Washington County – First Report

July 26, 2013. Laura McDermott, Eastern NY Horticulture Program, Cornell Cooperative Extension, reports two male SWD caught in [traps](#) set in a blueberry planting hedgerow in Washington County. Traps were collected on July 22. (Accumulated GDD 1483, day length 14:47)

Livingston County – First Report

July 25, 2013. One male and one female SWD were caught in [traps](#) set in a raspberry planting in Livingston County by David Thorp, Livingston County Cornell Cooperative Extension, and identified by yours truly. Last week's extreme heat in western NY may have hampered trap captures while this week's moderate daytime temperature and cool nights may have favored insect activity and trap captures. Keep in mind that traps compete poorly with fruit for SWD. Routine harvest so as not to leave any ripe fruit in the planting is a good tactic against SWD infestation. (Accumulated GDD 1252, day length 14:40).

Right: SWD female caught in a Livingston County raspberry planting the week of July 18 to 24. The characteristic saw-tooth ovipositor is shown in the inset, upper left. Note the thin dark bands on the abdomen.



Seneca County – First Report

July 25, 2013. Two female SWD were caught in a [trap](#) set in a blueberry planting in Seneca County collected on July 17 by Johanna Elsensohn, Research Support Specialist with Greg Loeb, Department of Entomology, Cornell University. (Accumulated GDD 1325, day length 14:54)

Schuyler County – First Report

July 25, 2013. SWD has been caught in a [trap](#) set in woods adjacent to a blueberry plantation in eastern Schuyler County by Greg Loeb's lab, Dept. of Entomology, Cornell University. One male and one female were caught during the week preceding July 11; four males and four females were caught during the week preceding July 17. The time for concern about this difficult-to-control invasive insect is upon us. Carefully planned strategies for management of SWD should be developed, especially for late summer and fall fruit crops. (As of July 11, accumulated GDD 1247, day length 15:01)

Wayne County – First Report

July 24, 2013. A single spotted wing drosophila male was caught in a [trap](#) collected on July 22 in day neutral strawberries in Wayne County by Juliet Carroll, NYS IPM Program, Cornell Cooperative Extension. Berry crops at risk for infestation include day neutral strawberries, blackberries, raspberries, and blueberries. Berry growers in the area should consider putting a [management program](#) into place. In addition, a single male SWD was caught in a trap set in sweet cherry at the same location. Sweet cherry harvest is winding down and fruit destined for farm market shelves will benefit from cold temperature storage or display cases. (Accumulated GDD 1374, day length 14:48)

Right: Spotted wing drosophila male with characteristic spot on each wing, caught the week of July 16-22 in a yeast-baited apple cider vinegar trap set in day neutral strawberries in Wayne County, NY.



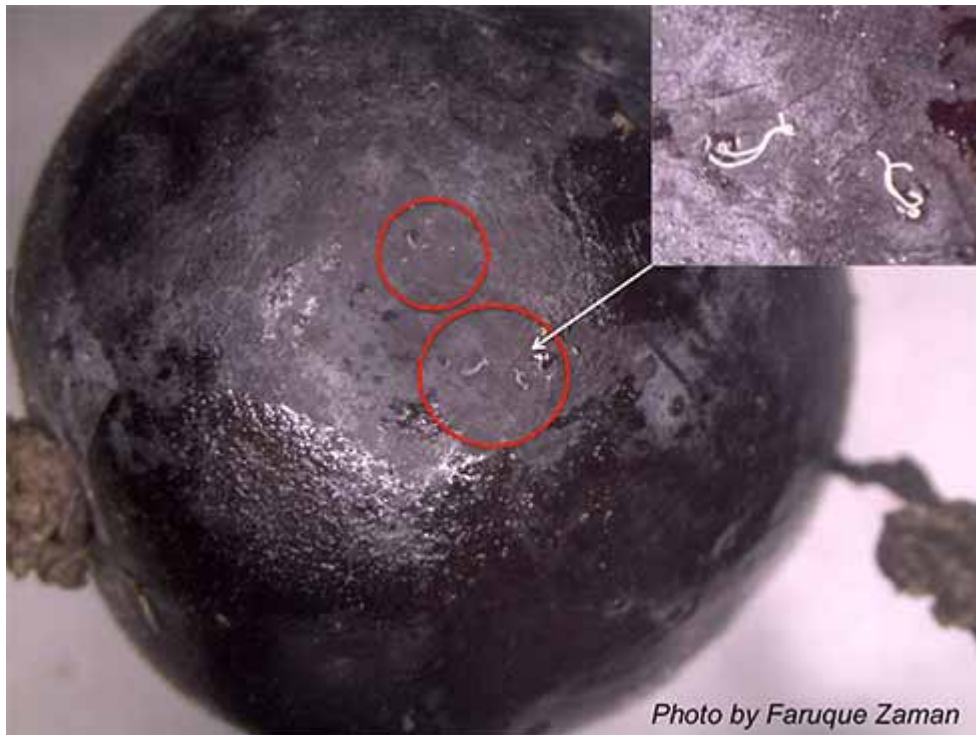
Upswing in Orange & Ulster

July 22, 2013. Mike Fargione, Eastern NY Horticulture Program, Cornell Cooperative Extension, reports they are seeing increased captures of SWD in Orange and Ulster counties. Favored host plants for SWD include blackberry,

raspberry and blueberry in commercial plantings and gardens, as well as wild brambles such as black cap raspberry and red raspberry. These plants will provide a significant resource for SWD population increase. Consider management tactics for [home gardens](#) and [commercial fruit plantings](#).

Oviposition in Blackberry

Faruque Zaman and Dan Gilrein, entomologists with Suffolk County Cornell Cooperative Extension at the Long Island Horticultural Research and Extension Center, just finished checking fruit collected July 18 from commercial plantings. Heavy oviposition was found in blackberries where over 50% of the fruit had 1 to 10 SWD eggs. No larvae were found in these samples, indicating the eggs were laid recently. Raspberries and blueberries next to the blackberry field had <1.0% fruit with SWD egg laying. Eggs are inserted into the fruit leaving only the tiny filaments (the eggs' breathing tubes) visible on the outside of fruit. Blackberries are known to be highly susceptible to SWD and these findings underline this.



Spotted wing drosophila oviposition in a grape (photo taken in 2012); note the tiny, white filaments visible on the fruit surface (red circles) which are the egg's breathing tubes (magnified in the inset).

Lannate LV and Lannate SP Approved for SWD Management in Blueberries – Mike Helms, Pesticide Management Education Program (PMEP), Cornell University

The New York State Department of Environmental Conservation recently approved the following 2(ee) recommendations:

- **Lannate LV Insecticide** (EPA Reg. No. 352-384) and **Lannate SP Insecticide** (EPA Reg. No. 352-342) for control of spotted wing drosophila on blueberries. (Note that both products are restricted-use pesticides.)

Users must have a copy of the appropriate 2(ee) recommendation in their possession at the time of use. Copies of the above 2(ee) recommendations are posted to the "NYS 2(ee) Recommendations and Categories" section of our web site. (Direct link to find the recommendations: http://pmep.cce.cornell.edu/regulation/2ee/unlabeled_pest/index.html.) Copies of the recommendations should also be available on PIMS (<http://pims.psur.cornell.edu>) shortly.

When using a 2(ee) recommendation, remember to follow any applicable directions, restrictions, and precautions on the primary product label.

SWD Look-a-Likes

For those of us picking through the burgeoning number of vinegar flies caught in our traps to find the single female or male SWD, Faruque Zaman and Dan Gilrein, Suffolk County Cornell Cooperative Extension, Long Island Horticultural Research and Extension Laboratory, have written an article published in [Vol 12, No 7 of the NY Berry News](#), starting on page 3. Two excellent figures show male and female SWD next to look-a-likes.

Another excellent resource for [SWD identification](#) is the fact sheet from Penn State, [Spotted Wing Drosophila, Part 1: Overview and Identification](#).

Updated Product Tables for SWD Management in Berry Crops, New Stone Fruit and Grapes Product Tables Available on the Cornell SWD website

Product tables listing currently registered materials for use in SWD management for [berry crops](#), [stone fruit and grapes](#) in NYS are now available on the Cornell SWD web site: <http://www.fruit.cornell.edu/spottedwing/>.

The tables detail product names, active ingredients, IRAC codes, EPA numbers, rates, REIs DTHs, Maximum allowable ai amounts/A/season application numbers/season, spray intervals and probable efficacy of materials. These tables are updated as additional products become available. Tables are dated to indicate the version reflected in the information presented in a particular table. Check the web site frequently to see if newer versions have been posted.

The berry crop tables were updated today and the most recent version is reprinted here for your convenience.

Questions or comments about the New York Berry News?

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Editor's Note: We are happy to have you reprint from the NYBN. Please cite the source when reprinting. In addition, we request you send a courtesy [E-mail](#) indicating NYBN volume, issue, and title, and reference citation for the reprint. Thank you.

*Cornell University provides equal program and employment opportunity.

*Labeled Insecticides for Control of Spotted Wing Drosophila in New York Berry Crops

Compiled by Greg Loeb, Cathy Heidenreich, Laura McDermott, Peter Jentsch, Debbie Breth, & Juliet Carroll, Cornell University, July 29, 2013

BLUEBERRIES

PRODUCT	AI ¹	IRAC group	EPA#	Rate/A	REI ³	DTH ⁴	Max. Prod/A/yr (ai)	Total applic's	Spray Interval	Probable efficacy
^@Entrust Naturalyte (2ee)	spinosad	5	62719-282	1.25-2 oz	4 hr	3 d	9 oz (0.45 lb)	3 per crop	6 d	Good to Excellent [#]
^@Entrust SC (2ee)	spinosad	5	62719-621	4-6 fl oz	4 hr	3 d	29 fl oz (0.45 lb)	3 per crop	6 d	Good to Excellent [#]
@Delegate WG (2ee)	spinetoram	5	62719-541	3-6 oz	4 hr	3 d	19.5 oz (0.305 lb)	6	6 d	Excellent [#]
Brigade WSG (2ee)	bifenthrin	3A	279-3108	5.3-16 oz	12 hr	1 d	5 lb (0.5 lb)	-	7 d	Excellent
Danitol 2.4EC	fenpropathrin	3A	59639-35	16 fl oz	24 hr	3 d	32 fl oz (0.6 lb)	2	-	Excellent
Mustang Max Insecticide (2ee)	zeta-cypermethrin	3A	279-3249	4 fl oz	12 hr	1 d	24 fl oz (0.15 lb)	6	7 d	Excellent
Triple Crown	bifenthrin, imidacloprid, zeta-cypermethrin	3A,4A	279-3440	6.4-10.3 fl oz	12 hr	3 d	31.0 fl oz (0.54 lb)	5	7 d	Good to excellent
Imidan 70W	phosmet	1B	10163-169	1.33 lb	24 hr	3 d	7.125 lb (5.0 lb)	5	-	Excellent
Lannate SP (2ee)	methomyl	1A	352-342	0.5 – 1.0 lb	48 hr	3 d	4 lb (3.6 lb)	4	5-7 d	Excellent
Lannate VP (2ee)	methomyl	1A	352-384	1.5-3.0 pts	48 hr	3 d	12 pts (3.6 lb)	4	5-7 d	Excellent
Malathion 5EC (2ee)	malathion	1B	19713-217	2.0 pts	12 hr	1 d	6 pts (3.75 lb)	3	5 d	Good
Malathion 5EC (2ee)	malathion	1B	66330-220	2.0 pts	12 hr	1 d	6 pts (3.75 lb)	3	5 d	Good
Malathion 8 Aquamul (2ee)	malathion	1B	34704-474	1.875 pts	12 hr	1 d	3.75 pts (3.75 lb)	1	5 d	Good
Malathion 57 (2ee)	malathion	1B	67760-40-53883	2.0 pts	12 hr	1 d	6 pts (3.75 lb)	3	5 d	Good
Assail 30SG	acetamiprid	4A	8033-36-70506	4.5-5.3 oz	12 hr	1 d	26.7 oz (0.5 lb)	5	7 d	Good [#]
^Pyganic EC 1.4	pyrethrin	3A	1021-1771	1 pt – 2 qts	12 hr	0 d	-	-	-	Fair to Poor
^Pyganic EC 5.0	pyrethrin	3A	1021-1772	4.5 – 18 fl oz	12 hr	0 d	-	-	-	Fair to Poor
^AzaSol	azadirachtin	UN	81899-4	6 oz in 50 gal	4 hr	0 d	-	-	-	Fair to Poor

*Refer to label for details and additional restrictions.

[#]Adding sugar (sucrose) at 2 lb/100 gal water as a feeding stimulant will increase efficacy.

[^]Approved for organic use in NY.

[@]After two consecutive applications must rotate to different mode of action.

¹ Active Ingredient.

² Mode of Action, based on IRAC group code.

³ Re-entry Interval.

⁴ Days to Harvest.

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RASPBERRIES & BLACKBERRIES

PRODUCT	AI¹	IRAC group	EPA#	RATE/A	REI³	DTH⁴	Max. Prod/A/yr (ai)	Total applic's	Spray Interval	Probable efficacy
[^] @Entrust Naturalyte (2ee)	spinosad	5	62719-282	1.25-2 oz	4 hr	1 d	9 oz (0.45 lb)	3 per crop	6 d	Good to Excellent [#]
[^] @Entrust SC (2ee)	spinosad	5	62719-621	4-6 fl oz	4 hr	1 d	29 fl oz (0.45 lb)	3 per crop	6 d	Good to Excellent [#]
[@] Delegate WG (2ee)	spinetoram	5	62719-541	3-6 oz	4 hr	1 d	19.5 oz (0.305 lb)	6	4 d	Excellent [#]
Brigade WSG (2ee)	bifenthrin	3A	279-3108	8.0-16 oz	12 hr	3 d	2 lb (0.2 lb)	1 post bloom	-	Excellent
Brigade EC (2ee)	bifenthrin	3A	279-3313	3.2-6.4 fl oz	12 hr	3 d	12.8 fl oz (0.2 lb)	1 post bloom	-	Excellent
Danitol 2.4EC	fenpropathrin	3A	59639-35	16 fl oz	24 hr	3 d	32 fl oz (0.6 lb)	2	-	Excellent
Mustang Max Insecticide (2ee)	zeta-cypermethrin	3A	279-3249	4 fl oz	12 hr	1 d	24 fl oz (0.15 lb)	6	7 d	Excellent
Triple Crown	bifenthrin, imidacloprid, zeta-cypermethrin	3A,4A	279-3440	6.4-10.3 fl oz	12 hr	3 d	10.3 fl oz (0.181 lb)	1 post bloom	7 d	Good to excellent
Malathion 5EC (2ee)	malathion	1B	19713-217	3.0 pts	12 hr	1 d	9 pts (6.0 lb)	3	7 d	Good
Malathion 5EC (2ee)	malathion	1B	66330-220	3.0 pts	12 hr	1 d	9 pts (6.0 lb)	3	7 d	Good
Malathion 8 Aquamul (2ee)	malathion	1B	34704-474	2.0 pts	12 hr	1 d	6 pts (6.0 lb)	3	7 d	Good
Malathion 57 (2ee)	malathion	1B	67760-40-53883	3.0 pts	12 hr	1 d	9 pts (6.0 lb)	3	7 d	Good
Assail 30SG	acetamiprid	4A	8033-36-70506	4.5-5.3 oz	12 hr	1 d	26.7 oz (0.5 lb)	5	7 d	Good [#]
[^] Pyganic EC 1.4	pyrethrin	3A	1021-1771	1 pt – 2 qts	12 hr	0 d	-	-	-	Fair to Poor
[^] Pyganic EC 5.0	pyrethrin	3A	1021-1772	4.5 – 18 fl oz	12 hr	0 d	-	-	-	Fair to Poor
[^] AzaSol	azadirachtin	UN	81899-4	6 oz in 50 gal	4 hr	0	-	-	-	Fair to Poor

*Refer to label for details and additional restrictions.

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STRAWBERRIES

PRODUCT	AI¹	IRAC group	EPA#	RATE/A	REI³	DTH⁴	Max. Prod/A/yr (ai)	Total applic's	Spray Interval	Probable efficacy
[^] @Entrust Naturalyte (2ee)	spinosad	5	62719-282	1.25-2 oz	4 hr	1 d	9 oz (0.45 lb)	5	5 d	Good to Excellent [#]
[^] @Entrust SC (2ee)	spinosad	5	62719-621	4-6 fl oz	4 hr	1 d	29 fl oz (0.45 lb)	5	5 d	Good to Excellent [#]
[@] Radiant (2ee)	spinetoram	5	62719-545	6-10 fl oz	4 hr	1 d	39 fl oz (0.305 lb)	5	3 d	Excellent [#]
Brigade WSG (2ee)	bifenthrin	3A	279-3108	5.3-16 oz	12 hr	0 d	5 lb (0.5 lb)	-	7 d	Excellent
Danitol 2.4EC	fenpropathrin	3A	59639-35	16-21.3 fl oz	24 hr	2 d	42.7 fl oz (0.8 lb)	2	-	Excellent
Malathion 5EC (2ee)	malathion	1B	19713-217	3.2 pts	12 hr	3 d	12.8 pts (8.0 lb)	4	7 d	Good
Malathion 5EC (2ee)	malathion	1B	66330-220	3.2 pts	12 hr	3 d	12.8 pts (8.0 lb)	4	7 d	Good
Malathion 8 Aquamul (2ee)	malathion	1B	34704-474	2.0 pts	12 hr	3 d	8 pts (8.0 lb)	4	7 d	Good
Malathion 57 (2ee)	malathion	1B	67760-40-53883	3.2 pts	12 hr	3 d	12.8 pts (8.0 lb)	4	7 d	Good
Assail 30SG	acetamiprid	4A	8033-36-70506	4.5-5.3 oz	12 hr	1 d	13.8 oz (0.26 lb)	2	7 d	Good [#]
[^] Pyganic EC 1.4	pyrethrin	3A	1021-1771	1 pt – 2 qts	12 hr	0 d	-	-	-	Fair to Poor
[^] Pyganic EC 5.0	pyrethrin	3A	1021-1772	4.5 – 18 fl oz	12 hr	0 d	-	-	-	Fair to Poor
[^] AzaSol	azadirachtin	UN	81899-4	6 oz in 50 gal	4 hr	0 d	-	-	-	Fair to Poor

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