SWD Regional Report, NY State

Spotted Wing Drosophila

Northeast IPM Working Group Meeting

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Collaborators, Counties and Crops - 2013

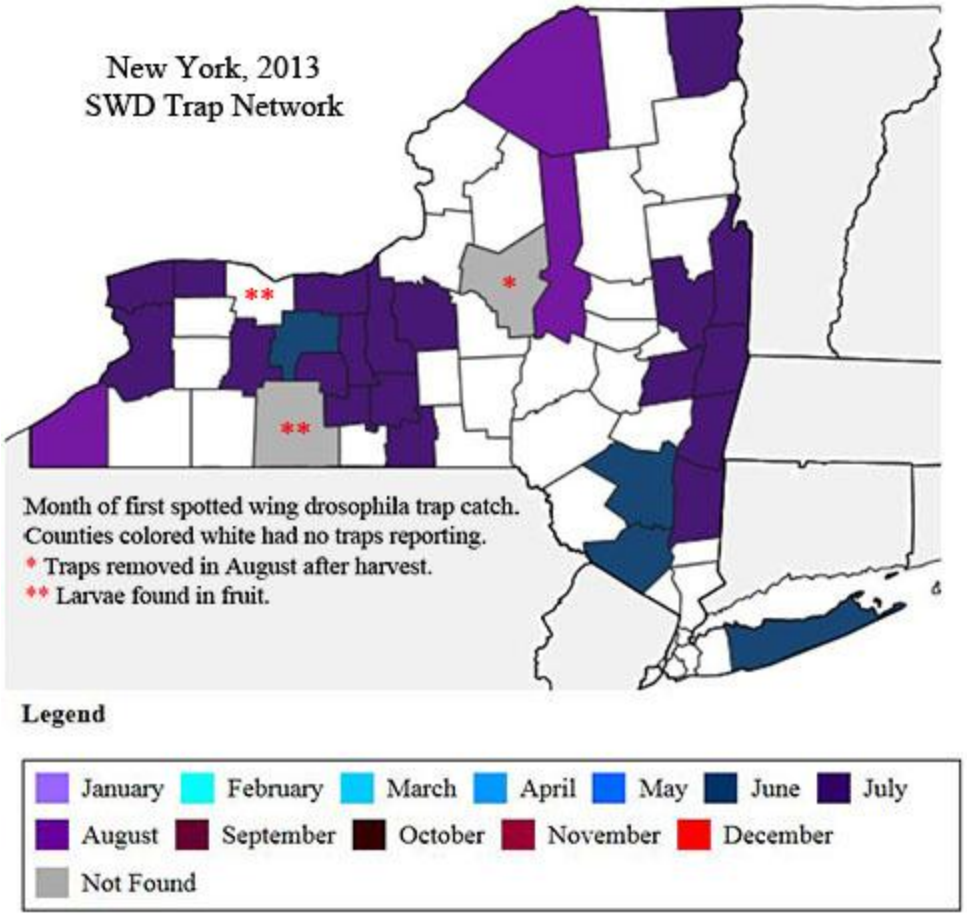
Name	Counties	Crops [a]
Agnello	Ontario, Wayne	Cherry
Armata	Herkimer	Caneberry
Bachman	Erie	Caneberry, blueberry
Breth	Monroe, Niagara, Orleans	Caneberry, blueberry
Carlberg	Chautauqua	Caneberry
Carroll	Cayuga, Niagara, Onondaga, Orleans, Schuyler, Wayne	Cherry, strawberry, caneberry, blueberry
Cook	Dutchess, Ulster	Caneberry, blueberry, DN strawberry, wild edge
Fargione	Columbia, Ulster	Cherry, wild edge
Hetzler	St. Lawrence	Caneberry, blueberry, currant
Ivy	Clinton	Blueberry, wild edge
Jentsch	Orange	Cherry, caneberry, blueberry
Loeb	Monroe, Ontario, Schuyler, Seneca, Tompkins, Yates	Strawberry, caneberry, blueberry, wild edge
Loeck	Tioga	Blueberry
McDermott	Albany, Columbia, Rensselaer, Saratoga, Washington	Caneberry, blueberry, DN strawberry, wild edge
Mehlenbacher	Steuben	Blueberry
Miller	Oneida	June strawberry
O'Connell	Ulster	Blackberry
Thorp	Livingston	Caneberry
Zaman	Suffolk	Caneberry, peach, apple, blueberry, grape, wild edge

[a] 'Wild edge' indicates a hedgerow or a forested edge of the crop.

- Traps – red/black or clear cups, apple cider vinegar drowning solution, and yeast, whole wheat flour and sucrose bait.
- Set in late May to early June at ~140 locations; within the crop, on crop edge, or in wild edge.
- Checked weekly until sustained trap capture or until the crop was harvested.
- First reports posted on the SWD blog blogs.cornell.edu/swd1/ with GDD_{50} & day length.

NY SWD Trap Network - 2013

1st detection June 11, latest first detection August 26.
Earliest wild host , Prunus serotina, black cherry.



4 Counties reported first trap catch in June (dark blue).

19 Counties reported first trap catch in July (dark purple).

3 Counties reported first trap catch in August (light purple).

Two Counties did not find SWD in traps (gray).

www.eddmaps.org/project/project.cfm?proj=9

The Eastern SWD Volunteer Monitoring Network generated a NY distribution map.

First SWD Trap Catch by County

County	Plant or Crop	Date	GDD	Day Length
Ontario	Blueberry edge	11-Jun	554	15:14
Suffolk	Wild edge & raspberry	12-Jun	650	15:07
Orange	Wild edge & raspberry	17-Jun	640	15:05
Ulster	Wild edge & blackberry	24-Jun	834	15:09
Dutchess	Sweet cherry	1-Jul	990	15:05
Yates	Blueberry	5-Jul	1001	15:09
Columbia	Stone fruit orchard	8-Jul	1193	14:52
Schuyler	Wild edge (blueberry)	11-Jul	1247	15:01
Seneca	Blueberry	17-Jul	1325	14:54
Wayne	Cherry & DN strawberry	22-Jul	1374	14:48
Rensselaer	Wild edge (blueberry & raspberry)	22-Jul	1287	14:44
Washington	Wild edge (blueberry)	22-Jul	1483	14:47
Livingston	Raspberry	24-Jul	1252	14:40
Tompkins	Blackberry	24-Jul	1447	14:40
Cayuga	Sweet cherry & raspberry	25-Jul	1416	14:40
Onondaga	Sweet cherry & raspberry	25-Jul	1481	14:41
Clinton	Wild edge (blueberry)	29-Jul	1344	14:52
Tioga	HT raspberry	29-Jul	1336	14:29
Niagara	Raspberry	30-Jul	1273	14:31
Orleans	Sweet Cherry	30-Jul	1475	14:31
Chautauqua	Raspberry	7-Aug	1458	14:07
St. Lawrence	Black currant	19-Aug	1632	13:48
Herkimer	Wild edge & raspberry	26-Aug	1888	13:23

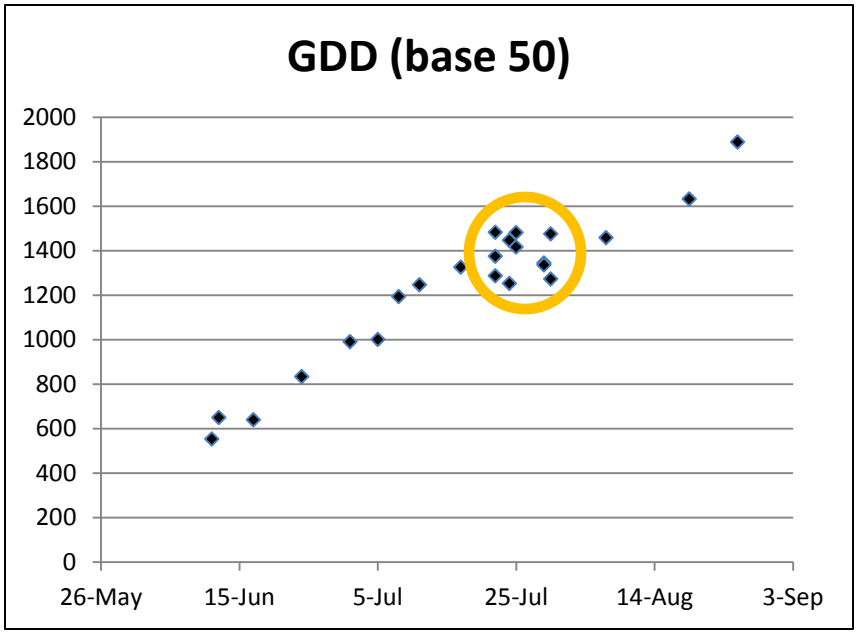
The most common landscape for 1st catch was the crop edge or the wild edge.

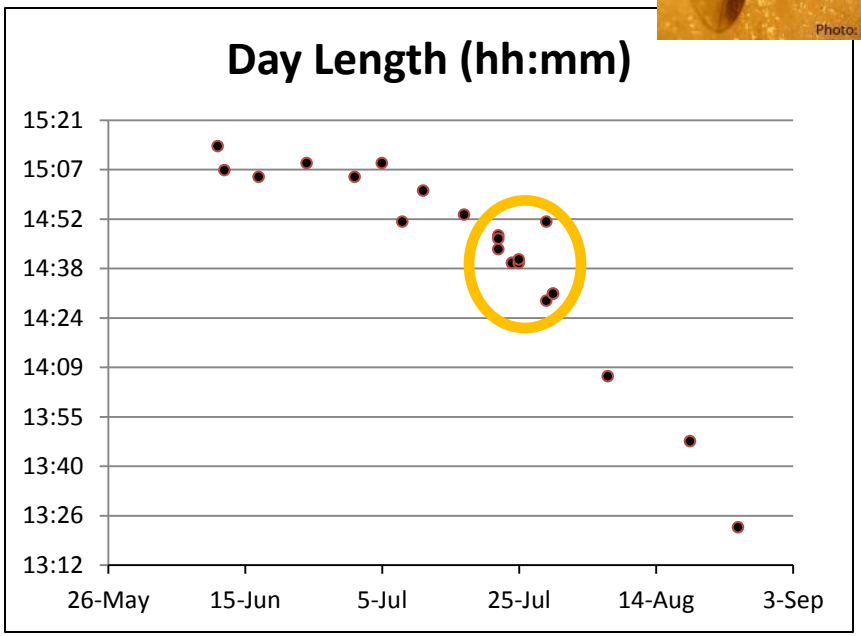
1st catch in NY in the Finger Lakes region on June 11. Within a week found on Long Island and in the Hudson Valley.

Traps in June strawberries, monitored until harvest, typically did not catch SWD.

Some traps set in blueberries failed to catch SWD, but larvae found in fruit.

GDD and Day Length at 1st Catch





Growing degree days (GDD) and day length (hh:mm) for the first trap catch dates in NY. Earliest catch was June 11 (GDD=554, day length=15:14).

Median date was July 22; with July 24 and 25, these dates accounted for 30% of the first trap catch dates, while the eight day period from July 22 to July 30 accounted for 48%. The GDD and day length for these dates ranged from 1252 to 1483 and 14:29 to 14:52, respectively (circles).

SWD Trap Network Conclusions

Met goal of monitoring for 1st trap catch and disseminating information to growers.

- June strawberries escaped SWD.
- Grapes had little damage, though SWD oviposition.
- Cherries in the lower Hudson Valley infested, though not in other areas.
- Plums were infested, though damage light and variety-dependent.
- Blueberry damage influenced by maturation date.
- Day-neutral strawberries were infested.
- Blackberries & fall raspberries were heavily damaged.

- Research needed on
  - Optimal insecticide timing,
  - Crop diversity effects,
  - Landscape ecology,
  - Cultural management.
  - Insecticides suitable for U-pick.
- Extension needed on
  - SWD website improvements.
  - Insecticide quick reference tables.
- SWD blog successful
  - Picked up in newsletters.
  - Info ran in newspapers.
- Education needed on
  - SWD identification.
  - How to sort through trap contents.