

## Spotted Wing Drosophila: New insect pest of soft fruits

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Based on information from David Handley, UMaine Extension Vegetable and Small Fruit Specialist and publications below.

Images from UMaine Highmoor Farm blog & Cooperative Extension Fact Sheet No. 210

This fact sheet can be found on our website: [http://www.knox-lincoln.org/storage/publications/maine-landscapes-and-gardens/Spotted-Wing-Drosophila\\_swcd.docx](http://www.knox-lincoln.org/storage/publications/maine-landscapes-and-gardens/Spotted-Wing-Drosophila_swcd.docx)

If you grow **raspberries, blueberries, everbearing strawberries, or any other soft fruit** that matures in August/September, be on the lookout for Spotted Wing Drosophila.



*Left: male w/ spots on wings Right: female w ovipositor*

Spotted Wing Drosophila (SWD) is a fruit fly that was introduced to the US in 2008 from Japan. It first appeared in Maine in 2011 and in 2012 was trapped in numerous locations in central, southern and midcoast Maine. SWD is closely related to the fruit fly that hovers around ripe bananas but unlike that fly, which must wait until fruit is soft or rotten, the female SWD can cut through fruit skin and lay eggs in green fruit. Larvae mature when fruit is ready to be picked (as many as 100 per fruit), which means that fruit has no shelf life. The fly has a very short life cycle so one fly quickly becomes hundreds or thousands of flies. While some insecticides are effective against this pest, they must be applied at least once a week starting in mid-July. Researchers are looking into other control methods including biological control and genetically modifying male flies for sterility.

### Home gardeners may be able to avoid damage:

1. **Exclude** – Make a PVC frame and cover bushes with screen (mesh < 1mm), row covers (use lightest weight and watch for heat build-up), or Protek 80 plant cover (available at Paris Farmers Union) as soon as fruit is present.
2. **Trap** – Traps may be used to determine when flies are present or in small, home gardens may be effective in trapping out flies.

**Make traps** using 16-20 oz red, plastic cups with lids. Punch 1/8" holes around top rim of cup so SWD can get in, but larger insects are excluded. Around mid to late July or whenever fruit is present but not yet showing color (not before – you don't want to draw flies to your yard), attach cups to plants close to ground in shade and fill with one of the following baits:

- a. 2/3 white grape juice and 1/3 cider vinegar and a little dish soap
  - b. 2T yeast to 16 oz water. Mix with flour and sugar to form a basic batter or dough; reported to be irresistible.
3. Practice good sanitation in garden. Clean up all waste fruit and remove; keep ground clean.



### If you think (or know) that your fruit has larvae:

1. Harvest fruit a little earlier than you normally would, before it is 100% field ripe. (Affected fruit may feel soft to the touch at harvest.)
2. To use fresh, refrigerate immediately for 12 hours at 38-40 F and you will be able to hold fruit for a week or so.
3. Freezer storage and cooking (jam, etc.) kills larvae.

### For more detailed information and pictures, copy and paste the following urls into your browser:

1. UMaine Extension SWD 2012 Summary for Maine Berry Growers/Highmoor Farm: [http://www.knox-lincoln.org/storage/publications/swd/umaine.edu-Cooperative\\_Extension\\_Highmoor\\_Farm\\_sw\\_d\\_2012-summary.pdf](http://www.knox-lincoln.org/storage/publications/swd/umaine.edu-Cooperative_Extension_Highmoor_Farm_sw_d_2012-summary.pdf)
2. Maine Wild Blueberry Factsheet 210 SWD Management: [http://www.knox-lincoln.org/storage/publications/swd/UMeExt210SWD\\_mgt.pdf](http://www.knox-lincoln.org/storage/publications/swd/UMeExt210SWD_mgt.pdf)
3. Penn State Cooperative Extension Blog SWD Management: [http://www.knox-lincoln.org/storage/publications/swd/swd\\_psu.pdf](http://www.knox-lincoln.org/storage/publications/swd/swd_psu.pdf)