

Small Fruit Update



News and opinions from [Peerbolt Crop Management](#) and [BerriesNW](#) sent out weekly during the growing season, and sporadically when we have something to share in the off season.

August 10, 2010

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[Small Fruit Cold Storage Report](#)

Alert

[Spotted Wing Drosophila](#), all berries: The risk of fruit damage and economic losses to this new fruit pest continue to increase. For any berry crop still harvesting in the Northwest, it is highly recommended to take all appropriate measures to mitigate this risk.

See the more extensive [SWD weekly update](#) below for in-depth SWD information.

Regional Reports

These reports are from individuals within the region and are their particular observations. They are included to give an impression of the present 'state of the industry' and regional activities.

British Columbia, Fraser Valley

- **Blueberries:** (8/8) Some blueberry splitting in Bluecrop and ripe Elliots due to rain this weekend. It's localized, because some areas of the Fraser Valley got more precipitation than others. Liberty and Elliot ripening a little too fast. Could be picking a bit of both varieties by the weekend. The cooler, damp weather of the last three days may slow this down somewhat, but we are slated to return to dry warmer conditions soon. I noticed that my SWD traps located near wild blackberries continue to have significant numbers of flies even shortly after spraying. I would caution growers to keep spray intervals tight in crop locals adjacent to blackberries. These appear to be big SWD population centres that could be capable of re-infesting a field area quickly.
- **Raspberries** (8/8) Raspberry harvest is done and post harvest activities are commencing. A last fungicide for cane blight will go on this week. Only a very few fields needed any post harvest mite controls. The rainy weather of the past three days will help new shoots and give baby plantings a kick (they have been really slow growing the last month). Overall, a disappointing crop this year which is even more unfortunate considering the picking weather was about as good as it gets.

Disseminating information for:

Washington

[Washington Red Raspberry Commission](#)
[Washington Blueberry Commission](#)
[Washington Strawberry Commission](#)

Oregon

[Oregon Raspberry and Blackberry Commission](#)
[Oregon Blueberry Commission](#)
[Oregon Strawberry Commission](#)

British Columbia

[Fraser Valley Strawberry Growers Association](#)
[Raspberry Industry Development Council](#)
[B.C. Blueberry Council](#)

Willamette Valley, Oregon and SW Washington

- **Blueberries:** (8/8) Our beautiful harvest weather is due to heat up this coming weekend but until then, we continue with an excellent harvest. No major problems, although there's more noticeable pressure from SWD in border trap numbers and nearby crops. So far the management program has worked well. In another sign of the confused, spread- out-ripening timing this year, there are still some Duke being picked in the southern/central valley while Elliott, Liberty, and Aurora are also coming in. A good crop. No records are going to be set but shouldn't be too short either.

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Industry News/Resources

Newsletters

- **The Source**, market updates from The Produce News for 8/9: [Click here](#).
- **Michigan State IPM Fruit Newsletter** for 8/9: [Click here](#).
- **New Jersey Blueberry Bulletin** for 8/2: [Click here](#).
- **British Columbia Blueberry IPM Newsletter** for 8/7: [Click here](#).

West

- **Strange year for raspberries leads to lower 2010 harvest:** [Click here](#) (8/8, Bellingham Herald)
- **Ima blueberry returns to Cedar Mills farmers market:** [Click here](#) (8/4, Oregonian) Is this a great blueberry suit or what?
- **Blue skies for Coquitlam blueberry farmer:** [Click here](#) (8/7, BC Local News)
- **Demand for frozen blueberries pushes up value:** [Click here](#) (8/5, Capital Press)
- **Hong Kong gets a taste of Pacific Northwest agriculture:** [Click here](#) (8/6, Statesman Journal)
- **As Lynden's fair turns 100, farming still takes center stage:** [Click here](#) (8/8, Bellingham Herald)

National

- **New look for Driscoll's berry labels:** [Click here](#) (8/4, The Packer)
- **Naturipe develops single-serve blueberry packs:** [Click here](#) (8/5, The Packer)
- **(MI) Three generations of blueberries:** [Click here](#) (8/6, Holland Sentinel)

International

- **As crops wither in Russia's severe drought, vital plant field bank faces demolition:** [Click here](#) (8/9, redOrbit)

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Crop Protection Materials Information

- **(Scotland) Bee populations being poisoned by neonicotinoid insecticides?:** [Click here](#). (8/9, The Herald, Scotland)
- **(CA) Methyl iodide registration faces new hurdles:** [Click here](#) (8/4, CA Farm Bureau)
- **Stinger herbicide, Oregon blueberries:** Oregon state has been issued a SLN (Special Local Needs) label for the use of Stinger (clopyralid) in blueberries for the control of Canada Thistle and 'certain other broadleaf weeds'.
 - [Click here](#) for the Oregon label.
 - [Click here](#) for the equivalent Washington state label issued a couple of weeks ago.

New Pest Management Information

- **Redberry Mites, late ripening blackberries:**
 - We're starting to see Redberry Mite problems in late ripening blackberries. They've been verified in some late season Marions, Black Pearl, and early Chesters, so far. Evergreens are usually the hardest hit. The berries turn brick red and hard instead of ripening.
 - **New treatment method** [Click here](#) for UC management guidelines for this pest. They've come up with an improvement over our traditional sulfur applications, namely: "Horticultural oils, such as Natur'l Oil and Golden Pest Spray Oil, when used at the rate of 1.2 to 2% volume to volume, applied after green fruit or first pink fruit stage in four consecutive applications spaced 2 or 3 weeks apart give significant control of redberry mite, while causing less harm to fruit yield than sulfur sprays."
- **Cane Blight, raspberries:** Right after harvest is the time to protect the open catcher plate wounds from cane blight infections with a fungicide application.

Ongoing Pest Management Information

- [Birds](#), blueberries.

Insects/Mites

- [Yellow Mites](#), northern raspberries
- [Twospotted Spider Mites](#), raspberries.
- [Strawberry Crown Moth](#), southern strawberries/caneberries.
- [Orange Tortrix Leafrollers](#), southern blackberries and raspberries:
- **Root Weevils:** [Black Vine](#), [Rough Strawberry](#), and [Strawberry Root Weevils](#), ,

Diseases

- **Blueberry fungal diseases:** [Anthracnose Ripe Rot](#), [Alternaria Fruit Rot](#), [Botrytis Fruit Mold](#), [Mummyberry](#).
- **Blueberry virus diseases:** [Scorch virus](#), British Columbia blueberries.
- **Raspberry and blackberry fungal diseases:** [Blackberry Rust](#) (Phragmidium Rust) evergreen blackberries, [Yellow Rust](#), raspberries, [Phytophthora Root Rot](#) raspberries.
- **Raspberry and blackberry virus diseases:** Raspberry Bushy Dwarf virus, [Raspberries](#), [Marionberries](#).

Leaf/tissue analysis & Soil testing

Post harvest is the best time to do most soil and leaf testing for nutrient management planning.

- **Blueberries:** Leaf/tissue testing and pH monitoring are most critical. Complete soil tests don't correlate well with plant needs as leaf/tissue tests. [Click here](#) to view OSU's Blueberry Nutrient (and testing) Guidelines.
- **Blackberries and Raspberries:** While annual soil testing has been the industry norm, Oregon State's recently updated nutritional guide recommends annual leaf/tissue testing, with soil tests done just every few years. [Click here](#) to view OSU's Caneberry Nutrient (and testing) Guidelines.

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Spotted Wing Drosophila Update for 8-10-10

This Update is a collaborative effort with contributions from OSU, USDA-ARS, WSU, and Peerbolt Crop Management.

- [Click here](#) for information links from PCM.
- [Click here](#) for the OSU SWD website.
- [Click here](#) for the BC Ministry of Agriculture and Lands SWD website.
- [Click here](#) for the WSU, Mt. Vernon SWD website.

General SWD Comments

A number of indications this week of changing dynamics of SWD in relation to the berry crops—

- In the SW Washington/Oregon survey, overall trap counts dropped, however, *this does not indicate a lessening of the insects population or less crop risk.*
- The risk to berry crops still harvesting are at increasing risk; more larval infested fruit is being recovered in all regions.
- Almost all processed raspberry and blackberry fields have finished harvest. Those fields still being monitored have shown marked increases in trap counts and larvae in the remaining fruit.
- In blueberries, trap counts in some fields have increased quickly and some minor fruit infestations have been found.
- Part of the lower overall trap counts can be attributed to removing traps from caneberries, cherries, and strawberries that finished harvest and had fairly high numbers, and putting more traps in later ripening crops with lower numbers.
- Organic, u-pick, fresh market, and other growers, who are not treating with insecticides on a regular schedule, remain at greater risk. Some of these are seeing major economic losses due to SWD
- Some growers report finding larvae infested fruit even though they had little or no trap catches. *The monitoring program for SWD is still very much a work in progress.* There are many variables we're still working out, so take this into consideration when making management decision.
- For machine harvesters, this is the time to assess the economic impact of having a lot of fruit on the ground and whether it's necessary to invest more into research/methods of coping with this situation.
- This is also the window in time to evaluate the economic impact of Himalayan blackberries on SWD and, as sanitation, whether it's necessary to invest more into research/methods of coping with blackberries around the fields.
- Placing berries in a sealed baggie at room temperature with no liquid added is proving to be an easy monitoring technique for checking for SWD larvae. The larvae generally emerge from the fruit within a day of bagging. Warmth also encourages them to come out.

- As blueberry and caneberry fields finish harvest, a post harvest insecticide treatment is recommended to prevent the field from harboring a breeding population of SWD.

SWD News Stories

- **Mid-Valley fruit farmers confront a new foe:** [Click here](#) (8/7, StatesmanJournal.com)

Northwest Monitoring Weekly Update for 8/2-8/6— North to South

The following information comes primarily from public monitoring programs. Number of crop types, fields, and traps varies greatly so the numbers should be viewed as indicators only. This pest can be very site specific. Any treatment decisions should be based on monitoring data/observations gathered directly from the field to be treated and the individual grower's best judgment.

(Counts of ten to twenty are highlighted in Green, counts over 20 are highlighted in Red)

British Columbia:

- **From the B.C. Blueberry IPM Newsletter for 8/7/10:** "Insecticide sprays for SWD have reduced trap catches in many fields. SWD trap counts continue to increase in unsprayed fields. Mid and late season berries are very susceptible to SWD damage. Mid and late season blueberry, raspberry, strawberry and blackberry fields in all regions should be sprayed at 10-14 day intervals beginning when the fruit starts to colour. Fields should be sprayed between pickings to minimize fruit loss."
- [Click here](#) for the entire newsletter that includes a table of regional trap counts.
- **SWD Monitoring Report for Southern Interior of British Columbia for 8/4:** [Click here](#).

Whatcom and Skagit Counties, Northern WA:

WSU Extension in Whatcom and Skagit Counties have organized an SWD public monitoring program placing traps in fields of growers who have volunteered to share information.

- **Whatcom County:**
 - [Click here](#) to go to the Whatcom County interactive mapping site with trap numbers and locations.
 - **Whatcom County: Blackberry:** 2 males, 1 female. **Raspberry:** 67 males, 92 females. **Cherry:** 2 male, 5 females. **Strawberry:** 3 males, 7 females. **Jostaberry:** 2 males, 5 females.
- **Skagit County:**
 - [Click here](#) to go to the Skagit Count SWD website with an interactive survey map.
 - **Blackberry:** 3 males, 16 females. **Raspberry:** 4 males, 26 females.

SW Washington and Western Oregon (Monday, 8/2 – Saturday, 8/6)

The Washington berry commissions and the Oregon Department of Ag. along with the USDA, OSU extension, and Peerbolt Crop Management have supported and organized the survey from which the following information is taken. Grower identification as well as specific field sites are anonymous. There are well over 600 traps in total. [Click here](#) to go to the PCM SWD site for charts of county quadrants being scouted and regularly updated monitoring data from these counties. [Click here](#) to go to the OSU Extension SWD population county mapping site.

- **Clark, Cowlitz and Lewis Counties, Southwest WA: Blackberry:** 10 males, 4 females. **Blueberry:** 18 males, 15 females. **Raspberry:** 49 males, 50 females. **Strawberry:** 1 male, 1 female.
- **Multnomah and Washington Counties, OR: Blackberry:** 1 male, 1 female. **Black raspberry:** 3 males, 3 females. **Blueberry:** 1 male, 9 females. **Raspberry:** 15 males, 22 females.
- **Yamhill and Clackamas Counties, OR: Blackberry:** 0 males, 1 female. **Blueberry:** 1 male, 1 female. **Lonicera:** 3 males, 3 females. **Raspberry:** 3 males, 1 female. **Cherry:** 2 males, 5 females.
- **Polk and Marion Counties, OR: Blackberry:** 22 males, 17 females. **Blueberry:** 6 males, 4 females. **Cherry:** 1 male, 0 females. **Peach:** 1 male, 1 female. **Raspberry:** 1 male, 1 female. **Strawberry:** 2 males, 5 females.
- **Linn and Lane Counties, OR: Blackberry:** 14 males, 4 females. **Black Raspberry:** 32 males, 12 females. **Blueberry:** 13 males, 13 females. **Raspberry:** 45 males, 27 females. **Strawberry:** 25 males, 18 females.
- **Douglas County, OR: Blueberry:** 0 males, 1 female. **Peach:** 2 males, 0 females. **Cherry:** 2 males, 2 females. **Fig:** 1 male, 0 females. **Strawberry:** 0 males, 4 females.
- **Jackson and Josephine Counties, Southern OR: Blackberry:** 1 male, 0 females. **Blueberry:** 1 male, 1 female. **Cherry:** 11 males, 6 females. **Fig:** 1 male, 1 female. **Peach:** 0 males, 1 female. **Himalayan blackberry:** 1 female. **Strawberry:** 8 males, 7 females.

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Weekly Summaries of SW Washington/Western Oregon—Public SWD Monitoring Program

This table shows recorded catches over the last 9 weeks. There are survey factors that have varied somewhat over the nine weeks, including number of fields, number of traps, type of crops. There are also field factors such as insecticide treatments and amount of ripe fruit in the field that have impacted the insect trap dynamics. These numbers should be viewed within that context. Still, some overall trends seem to stand out such as the male to female ratios, the increasing overall trap counts.

Dates	Total Males	Total Females	Overall Total	Percent females
6/7-6/11	15	29	44	66%
6/14-6/18	11	51	62	82%
6/21-6/24	16	35	51	69%
6/28-7/2	32	63	95	66%
7/5-7/9	47	44	91	48%
7/12-7/16	75	70	145	48%
7/19-7/23	263	209	472	44%
7/26-7/30	344	334	678	49%
8/2-8/6	330	263	593	44%

Ongoing Spotted Wing Drosophila Management Information

Timely Harvesting. It is important to harvest fruit in a timely fashion to avoid susceptibility to SWD. The spotted wing Drosophila appears to prefer ripe fruit.

Field Sanitation. A key to managing SWD is going to be keeping fields as clean of potential fruit hosts as possible. Getting improved fruit handling and cull disposal protocols in place early could mean the difference between a successful season and a train wreck. Remove any intact, over-ripe, and/or culled fruit from areas in and around the fields.

Adjacent habitat & Urban Site Infestations. Some habitat adjacent to berry fields and some urban sites in Western Oregon and Washington have been confirmed to have high SWD trap counts, as well as fruit that is heavily infested with SWD larvae. There is a high probability of 'hotspots' in both urban areas and unmanaged habitats that can act as a source for a large number of SWD to move into a commercial field when the fruit is at the vulnerable stage.

Pesticide tank mixes. In an effort to manage the risk involved with this new pest, some growers are using combinations of pesticides that they have not used in the past. Before applying an unfamiliar tank mix, be sure to check with your supplier, crop consultant, or other advisor to be sure it won't cause damage. Some mixes have the potential for unexpected, economically damaging effects—just the thing we're trying to avoid by using them.

SWD Management Recommendations Updated 6/22/10

Entomologists from the USDA-ARS, WSU, OSU have collaborated to produce updated SWD management plans for blueberries and caneberries. They've been posted on the OSU SWD website.

- For the blueberry management plan, [Click here](#).
- For the caneberry management plan, [Click here](#).

Other related links on the site:

- SWD Chemical control considerations: [Click here](#). (Includes many links and information including pollinator conservation information and alert postings)
- Insecticides registered in Oregon and Washington along with relevant SWD management information for each: [Click here](#). (includes relevant MRL issues, PHI's, REI's, efficacy, etc.)

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Crop work

All crops—

- Pay attention to new plantings of all berries for weeds, water, insects, diseases, and nutrient deficiencies.
- Can put out monitoring traps for Spotted Wing Drosophila
- If ripe fruit is in the field, can monitor for SWD larvae by using a 'baggie' test on fruit samples. [Click here](#) for example of the procedure.
- Weed management.
- Post-harvest—soil and leaf test for evaluation of nutrients.
- Post harvest—can treat for SWD management.

Blueberries—Harvest ongoing in all regions

- Scout for fruit disease symptoms and/or disorders.
- Scout for leafroller larvae feeding.
- Scout for aphids and treat as needed, particularly in northern growing areas where aphids vector Scorch virus.

- Scout for weevils and weevil notching.
- Scout for virus symptoms and send in samples for testing as needed.
- Maintain bird damage management.

Blackberries—Harvest ongoing in Oregon and SW Washington

- Scout for virus symptoms and send in samples for testing as needed.
- Can apply post harvest insecticide just after harvest SWD management.
- Can apply fungicides for fruit/blossom rot in late season crops.
- Can apply clean up insecticide just before harvest for crop contaminant management.
- Scout for Phragmidium Rust in evergreen blackberries.
- Scout for Cane and Leaf Rust.
- Scout for leafroller larvae and treat as needed to prevent fruit contaminant problems.

Raspberries—processed harvest wrapping up in SW Washington and Oregon, and ongoing in Northern Washington and B.C.

- Can apply post harvest insecticide just after harvest SWD management.
- Scout for Yellow Rust and assess treatment options.
- Scout for spider mites and treat as needed.
- Scout for virus symptoms and send in samples for testing as needed.
- Scout for aphids and treat as needed.
- Scout for leafroller larvae and other insect crop contaminants.
- Scout for ripe fruit fungal diseases.

Strawberries—Processed harvest is finished in all regions

- Post harvest—Treat post harvest for SWD if needed especially if field is in close proximity to other ripening berry or stone fruit crops.
- Have pheromone traps out for Strawberry Crown Moth in southern fields and treat as needed.
- Can treat post-harvest for SWD, root weevils, and/or Strawberry Crown Moth.
- Mow and renovate fields 2-4 weeks after harvest unless pest pressures require mowing and treating sooner than that.
- Take soil tests.
- Fertilize as needed.

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Archived Small Fruit Updates

(for older Updates [click here](#))

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