

Small Fruit Update



Providing Northwest berry growers with the information they need when they need it.

The Small Fruit Update is sent out weekly during the growing season by [Peerbolt Crop Management](#) and is funded entirely by the Northwest berry growers & industry through their commissions & councils.

August 17, 2011

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Video of the Week: [Who's Picking your berries? Feds find young children on strawberry farms](#) (8/11, ABC News Video)

[The Weather Cafe](#) by Rufus La Lone

[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 Weekly SWD Update Below](#)

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:** (Monday, August 15) Hand pick continues and is now into the Bluecrop. Some Bluecrop machining later in the week is probable. Most Dukes have been machined once with not much left behind. A lot more blue colour is showing up in Liberty and Elliott. We could use a little more heat to help intensify the ripening. Nights are pretty cold and the daytime temps are quite moderate. This is really turning into the summer that never was.

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](#)

National

[North American Blueberry Council](#)

- **Raspberries:** (Monday, August 15) All but done. By mid-week it should be over. Volumes have been quite good with most growers exceeding last year's yields. We're starting some post-harvest cleanup fungicides and aphid treatments. A few fields need some mite activity addressed as well.

Northern Washington, Whatcom County

- **Blueberries:** (Friday 8/12) Blueberry harvest is hitting full stride with Dukes coming off strong, finally. Rekas are a week off from picking, then Bluecrop and Bluejay, Draper, Liberty, and Jersey in September. Lots of funky symptoms in the blues, could be Shock, Pseudomonas, root rot, Phomopsis, canker, etc (see pictures below). Not many SWD catches in the blueberry traps, they really seem to prefer raspberries.
- **Raspberries:** (Friday 8/12) Raspberries are winding down, but still getting SWD in the traps. Great weather.

Willamette Valley, Oregon and SW Washington

- **Blueberries:** (Tuesday, August 16) A lot of fruit is coming in and a lot is coming on. Draper, Liberty, Bluecrop, Berkeley...even some Duke fields are still producing. Weather remains very conducive to good fruit quality and quantity. One of the 'top' news stories here (or what passes as local news...) is whether this year will be the first year since 1954 to not top 90 degrees (32 C) all summer.
- **Blackberries:** (Tuesday, August 16) Marions will continue for about another week picking puree quality now. The late setting fruit is actually coming through. Nothing like perfect harvest weather to maximize the yields. Overall crop won't break any records but will be better than anyone expected. Evergreens will start around the 27th. Chesters are now starting up. Quality is very good. Got excellent potential for yields on the late ripening blacks, but they're late and we'll need a nice, dry fall to get it all in.

"Funky symptoms in the blues" photos by Brian Cieslar



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 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.

Event Calendar

For more comprehensive event calendar, [click here](#).

- **August 25—USDA-ARS Blueberry Field Day** ~ 1-4 PM Lewis-Brown Horticultural Research Farm, 33447 DE Peoria Road, Corvallis, OR [Click here](#) for the agenda. For more information, call David Bryla 541-738-4094 or email Dave at david.bryla@ars.usda.gov

- **September 15 — Oregon Raspberry & Blackberry Commission meeting** ~ 6pm, Langdon Farms. Call 541-758-4043 or [email](#) Philip Gutt for more information.
- **September 20 — Oregon Blueberry Commission meeting** ~ 12pm. Santiam Room, West Salem Roth's IGA Salem, Oregon. Call (503) 364-2944 for more information or [email](#) Brian Ostlund.
- **September 21 — Washington Red Raspberry Commission meeting** ~ Mt. Vernon, WA. Contact [Henry Bierlink](#) or call 360-354-8767 for more information.
- **October 4-7—NABC & USHBC Fall meetings** ~ Caesar's Atlantic City, Atlantic City, New Jersey. [Click here](#) for the informational flyer and tentative schedule.

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Spotted Wing Drosophila Update for 8-9-11

This Update is a collective effort. It is composed by Peerbolt Crop Management with contributions from OSU, USDA-ARS, WSU, B.C. Ministry of Agriculture and various northwest berry industry people.

SWD Information Websites

[Peerbolt Crop Management](#)

[Oregon State Univ.](#)

[B.C. Ministry of Ag.](#)

[WSU Westside](#)

[WSU Eastside](#)

Management Material Update

- **Imidan (Phosmet) now labeled for SWD management in blueberries in U.S.**
 - [Click here](#) for the new label.
 - Preharvest interval (PHI) is 3 days. Re-entry interval (REI) is 24 hours.
 - Efficacy data from Michigan State shows excellent
 - Phosmet is an organophosphate.

Comments

- In southern growing areas caneberry and blueberry fields being monitored that haven't received any insecticide applications are showing much greater larval infestation rates than those that have been on a regular treatment regime.
- Many caneberry fields are close to the end of or have finished harvest. In monitored southern region fields, high adult trap numbers and larval infestations are being found in left over fruit
- In southern blueberries very low level, sporadic fruit infestation have been detected even in some fields on a regular treatment regime.
- Many northern growing area fields are still reporting low trap catch numbers.
- As we get later in the year, geometric increases in SWD populations can be anticipated based on the last two seasons of experience.
- Given this increased pest pressure the interval between insecticide applications might need to be shortened to maintain an adequate level of control.
- There is some preliminary anecdotal evidence that Malathion will not give as long a residual control as was originally reported. In high pest pressure situations, growers are advised to take this under advisement.
- Growers should rely on past experience, fruit ripening stage and fruit sampling for larvae to make decisions on the timing of insecticide applications.
- The protocols for checking fruit for larvae are listed below. Many growers and processors have now implemented these to maintain fruit quality.

SWD in the news

- [Strong safeguards are needed to protect native Michigan plants and crops](#)—Editorial (8/14, Kalamazoo Gazette)
- (Michigan) [Spotted wing Drosophila catches are picking up: Maintain monitoring if fields are still ripening](#) (8/16, MSU Extension News)

Guidelines for checking the fruit for SWD larvae in the field

These suggestions are based on techniques that various public researchers and industry personnel have been developing over the past year and a half. If any of you have ideas for improvements to these protocols, please pass them along. We're all in this together.

- Depending on size of fruit (strawberries take longer than caneberries or blueberries), the larvae will emerge from the fruit into the salt solution in a short period of time.
- The smaller the larvae and the lighter the infestation, the more difficult it is to see the larvae.
- Excellent lighting when looking for the larvae is critical to being able to see the smaller ones.

Present suggested methods:

For scouts/field checking ([We have created a video of this larvae-checking method.](#)):

1. Collect a sample of fruit to be tested (Strawberries: 25-30 per sample, Caneberries/blueberries: 75 per sample)
2. Put fruit in a gallon size sealable plastic bag.
3. Pour in enough of the salt water solution to allow the fruit to float (solution is: 1 cup of salt per gallon of water).
4. Mark bag with field code/date.
5. For a quick check in the field after a designated period of time (at least 15 minutes) holding the baggie up to light. This helps to see the larvae in the solution
6. For a more thorough examination, after a designated period of time (at least 15 minutes), pour the fruit and salt solution out into a shallow tray and use a piece of wire mesh screen to hold the fruit down making it easier to separate the larvae from the fruit.

For processors or fruit handling stations:

1. Collect a two pound sample of fruit to be tested.
2. Put the sample into a shallow tray and cover with the salt water solution (1 cup of salt per gallon of water).
3. After a designated period of time (at least 15 minutes) use a piece of wire mesh screen to hold the fruit down to make it easier to separate the larvae from the fruit.

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Regional Monitoring (South to North)

Oregon Public Scouting Program (Number of traps checked this week in the crop in parentheses).

This scouting program & reporting system are being funded by a USDA SCRI grant, A Northwest Center for Small Fruit Research grant; the Washington Red Raspberry Commission & the Washington Blueberry Commission.

- **Lane County:** Strawberries (1): no males/1 female. Cherries (2): **38 males/ 26 females**. Raspberries (1): none. Blackberries (2): 5 males/4 females.
- **Linn County:** Strawberries (8): **9 males/10 females**. Cherries (2): **47 males/ 24 females**. Raspberries (3): **19 males/8 females**. Blackberries (6): **36 males/37 females**. Blueberries (17): **13 males/14 females**. Peaches/Nectarines (5): **29 males/12 females**. Plum (2): **17 males/9 females**. Wild Habitat (20): **410 males/233 females**. Caneberry (4): **20 males/ 26females**. Apple (2): **15 males/8 females**.
- **Benton County:** Cherries (2): no males/1 female. Raspberries (1): no males/1 female. Blueberries (2): 1 male/4 females. Peaches (3):5 males/no females. Wild Habitat (4): none.
- **Polk County:** Blackberry (7): 2 males/1 female.
- **Marion County:** Blackberries (3):4 males/3 females. Blueberries (2): 2 males/2 females. Peaches (6): **63 males/36 females**.
- **Clackamas County:** Strawberries (1): 3 males/3 females. Raspberries (2): **11 males/3 female**. Blackberries (2): no males/4 females. Blueberries (7): 5 males/3 females. Tayberries (1): **8 male/4 females**. Honeysuckle (1): no males/4 females.
- **Yamhill County:** Cherries (1): **7 males/8 females**. Blueberries (1): none.
- **Washington:** Cherries: none. Blackberries (5): 1 male/4 females. Blueberries (4): none. Peaches (1): none. Plums (1): none.

- **Multnomah County: Cherries (1): 8 males/13 females. Raspberries (3):** no males/3 females. **Blackberries (4):** 1 male/5 females. **Blueberries (2):** 4 males/no females. **Peaches (4):** no males/1 female. **Boysenberries (1):** none.

Southwest Washington Public Scouting Program

- **Clark/Cowlitz/Lewis Counties: Cherries (2):** 4 males/5 females. **Raspberries (28): 30 males/45 females. Blackberries (6): 3 males/17 females. Blueberries (25):** 2 males/ 2 females. **Peaches (2):** 5 males/3 females. **Plums (1):** no males/ 1 female.

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Western Washington--WSU Public Scouting Program

This scouting program & reporting system are being coordinated by Whatcom County Extension & funded by the Washington Red Raspberry Commission, the Washington Blueberry Commission & the Washington State Commission for Pesticide Registrations.

[Click here](#) for the Home site with links to all the counties and site use information.

- [Click here](#) for the demonstration video on how to use this resource.
- Here are individual county links (south to north): [Clark County](#), [Cowlitz County](#), [Lewis County](#), [Pierce County](#), [King County](#), [Snohomish County](#), [Skagit County](#), [Whatcom County](#).

Southwestern British Columbia

[Click here](#) for the 8/15/11 SWD Monitoring Report for Southwestern BC from the BC Ministry of Ag.

- **Information from this recent report:**
 - *“Trap catches of SWD flies continue to increase. Fruit is susceptible to damage from SWD when it ripens (colours). Expect numbers to increase from now on. **Treatment is critical now.**”*
 - **Raspberries:** *Consider a post-harvest full-canopy spray to decrease the potential of SWD moving into neighbouring blueberry fields.*
 - **Blueberries:** *Incorporate SWD sprays into your harvesting schedule at ten-day intervals.”*

Management Material Resources

Oregon & Washington

- **Blueberries:** [SWD pesticide options & information](#)
- **Raspberries & blackberries:** [SWD pesticide options & information](#)
- **Strawberries:** [SWD pesticide options & information](#)

British Columbia (6/28/11): [SWD Management in BC Berry Crops](#) (with insecticide options listed)

Pest Management & IPM Information

- **Redberry Mites, late ripening blackberries: 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.

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](#).

Insects/Mites

- **Blueberries, Strawberries, Caneberries – Root Weevils** For more information on our major pest weevil species, click on the following: [Black Vine](#), [Rough Strawberry](#), and [Strawberry Root Weevils](#).
- [Aphids](#), northern raspberries
- [Two-spotted Spider Mites](#) raspberries.
- **Orange tortrix Leafrollers** in [Blueberries](#), [Raspberries](#), [Blackberries](#).
- [Leafroller larvae](#) blueberries, caneberries.
- [Blueberry Gall Midge](#) blueberries.

Industry News/Resources

Newsletters

- [B.C. Blueberry IPM Newsletter](#) (8/13)
- [New Jersey Blueberry Bulletin](#) (8/8)
- [Michigan State Fruit News](#) (8/16)
- [Michigan Blueberry Newsletter](#) (8/16)
- Market scope: [blueberries](#) [blackberries](#) [raspberries](#) [strawberries](#)
Recent stories & fresh market pricing for the various berries from The Packer.
- [‘The Source’](#) (8/17) *Market updates from The Produce News.*

Food Safety

- [Food Safety at Farmers Markets and Fruit Stands](#) (8/15, Food Safety News)
- [Two more illnesses may be tied to Oregon strawberries](#) (8/12, Food Safety News)
- [Oregon resellers recall strawberries](#) (8/15, The Packer)
- [Strawberry investigation continues, sparks Tester amendment discussion](#) (8/12, The Packer)
- [More outbreak lessons](#) - Editorial (8/12, The Packer)

Immigration/Labor

- [Underage labor violations cited in Washington State](#) (8/11, The Packer)
- [E-Verify legislation stalls](#) (8/10, Growing Produce)
- [E-Verify, guest worker reform go together, ex-official says](#) (6/17, Capital Press)

Pollinators

- [Where the wild bees are: The search for more pollinators](#) (8/11, USDA ARS News)

West

- [Slow start seems to be over for Abbotsford blueberry farmers](#) (8/11, Abbotsford Times)

North America

- [Blueberry order continues after vote](#) (8/12, The Packer)
- (Maine) [Blueberries are smaller due to lack of rain](#) (8/15, WCSH News Center)

International

- (Spain) [Blueberry becomes the gold of the field](#) (8/16, FreshPlaza.com)

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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 using test protocols listed above in SWD Update.
- Weed management.

- Post-harvest—soil and leaf test for evaluation of nutrients.
- Post harvest—can treat for SWD management if field is adjacent to vulnerable fruit crop.

Blueberries—Harvest ongoing in all regions

- Scout for fruit disease symptoms and/or disorders.
- Scout for leafroller larvae.
- 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.
- Scout for Mummyberry.
- Can apply SWD management insecticides.

Blackberries—Harvest ongoing in Oregon and SW Washington

- Scout for virus symptoms and send in samples for testing as needed.
- Can apply fungicides for fruit/blossom rot in late season crops.
- Can apply clean up insecticide just before harvest for crop contaminant management in late season crops.
- 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.
- Can apply SWD management insecticides.

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

- 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 leafroller larvae and other insect crop contaminants.
- Scout for ripe fruit fungal diseases.
- Can apply SWD management insecticides.

Strawberries —Processed harvest is finished in all regions.

- Scout for weevil adults and notching.
- Scout for Two-Spotted Spider Mites and predatory, beneficial mites.
- Scout for fruit formation issues like cat-facing.
- Scout for fruit quality issues such as mold.
- Scout for virus symptoms/send in sample for testing to confirm.
 - **Post-harvest**
 - Mow & renovate 2-4 weeks after harvest unless pest pressures require mowing & treating sooner.
 - Take soil tests.
 - Fertilize as needed.

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Archived Small Fruit Updates

(For older Updates [click here](#).)

[08-09-11](#)

[08-02-11](#)

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