

# 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 23, 2011

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**Video of the Week:** Don McRae, B.C. Minister of Agriculture, visiting a Comox Valley U Pick berry operation in June.

**Featured Presentation:** Organic Fruit Production Research, Bernadine Strik, USDA Organic Farming Systems Conference, 3/25/11. (21 minutes)

**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 for details](#)

## 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 22) Blues have been picking well with temps in the 25-30 C (75-85F) range the last 7-10 days. Bluecrop well into second picks. Not a big crop for mid-season. But the Elliotts should be good if the right warm weather stays around. A bit of rain today (1 inch) after a lengthy dry stretch. So we should know pretty quickly if there is any quality impacts (splits) tomorrow.
- **Raspberries:** (Monday, August 22) Raspberries are done. Tonnage is up over last season. I think significantly, but haven't collected all my data to know by how much. Primocane growth is quite variable from field to field and even within individual fields. I really think

### 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](#)

this goes way back to the impact of late winter, late shoot burns, weevils and lack of good growing degree day accumulation. We need a good late summer and fall to make up some growth. Lots of post season sprays to go on this week.

### Northern Washington, Whatcom County

- **Blueberries:** (Monday, 8/22) We're finally picking in full force. There's a lot of variability of tonnage between fields, too, just like the raspberries. Very few SWD in the traps, however we are keeping on a 10-12 day spray schedule.
- **Raspberries:** (Monday, 8/22) We've got about a week to go in harvesting for the Wakefield raspberry variety. They did very well this year. The 7-10 day spray intervals on the SWD insecticides seemed to do the job. I wonder (out loud) if we need to spray the whole bush, or just the bottom 2 feet? They seem to gather right close to the ground in the heaviest, coolest part of the canopy. Raspberry tonnage is all across the board, but overall tonnage should be more than last year. I'd have never bet on that one after all the screwy weather.

### Northern Washington, Skagit County

- **Blueberries:** (Tuesday, 8/23) We picked up 3/10ths inch of rain yesterday (Monday, 8/22), just enough to settle the dust. Our weather station has recorded 39.1" rain since this time last year. Skagit has broken 80 deg F maybe twice this "summer" so far. Great new growth on the blues with all the rain, hopefully they will harden off to avoid winter damage. Mid-season blues are finishing up with the last picks in Rubel and Bluejay. Liberty will be starting Friday 8/26 or so with larger than normal fruit perhaps due to the winter thinned crop. Elliotts in open fields will be starting around the first of September.
- **Blackberries:** (Tuesday 8/23) California blackberry varieties are just starting to pick. Chesters are two to three weeks out.

### Eastern Washington

- **Blueberries:** (Monday, 8/22) Blueberry harvest in eastern Washington is down to the last 10% harvesting the late season varieties. No SWD to speak of. Yields met or exceeded expectations.

### Willamette Valley, Oregon and SW Washington

- **Blueberries:** (Tuesday, August 23) (Organic production) It's been a great growing year for wood and not so great for berries. It is down some for crop yield overall, I think the berries were there but didn't weigh up. A little mummy berry was found this year so will have to start thinking of how to deal with that. First pick of Jersey is today, and we still need to finish Bluecrop, Berkeley and Reka if they ever ripen all the way. Not much in the traps for SWD but I think now is the time for it to sneak up on us. The three day pre harvest interval wait with Entrust before you can pick is challenging to match with harvest needs.
- **Blackberries:** (Tuesday, August 23) (Organic production) Everything is late here; we just started picking Triple Crown for fresh market in the research block.

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## Event Calendar

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

- **This Week: 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](mailto: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.

## Spotted Wing Drosophila Update for 8-23-11

*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](#)

### Regional Comments

*These comments 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 in regard to SWD.*

#### British Columbia, Fraser Valley

- (Monday, August 22) **From Mark Sweeney, BC Ministry of Ag Berry Specialist:** "Given the late, weird season and the much lower than expected SWD trap counts, I'm worried that some blueberry growers may be getting complacent and letting down their guard just when numbers start to ramp up. We have seen another increase this week and, with Himalayan blackberries fruiting everywhere, can expect an increase in pressure as we get into the second pick Bluecrop and as Elliott ripens.

I've spoken with some growers who look at the weekly trap counts and if they see zeros in a particular region think they are OK, not realizing that the counts are from a couple of sample of fields which may not be indicative of theirs.

Tracy Hueppelsheuser's (BC Ministry of Ag Entomologist) work continues to shows much higher trap counts in wild borders adjacent to fields compared to within fields.

Light fruit infestations are being detected in unsprayed fields, but nothing like last year."

#### Northern Washington, Whatcom County

- **Blueberries:** (Monday, 8/22) Very few SWD in the traps, however we are keeping on a 10-12 day spray schedule.
- **Raspberries:** (Monday, 8/22) The 7-10 day spray intervals on the SWD insecticides seemed to do the job. I wonder (out loud) if we need to spray the whole bush, or just the bottom 2 feet? They seem to gather right close to the ground in the heaviest, coolest part of the canopy

#### Northern Washington, Skagit County

- (Tuesday, 8/23) SWD trap counts lower than last season so far with the largest numbers along field edges bordering wooded areas and brush lines. Mustang and Entrust are providing good control based on trap numbers and processing sampling. We were unable to get helicopters in for applying applications this year. They were too busy in Oregon with timber we're told.

#### Eastern Washington

- **Blueberries:** (Monday, 8/22) No SWD to speak of.

#### Western Oregon, Willamette Valley

- **Blueberries:** (Tuesday, August 23) (Organic production) Not much in the traps for SWD but I think now is the time for it to sneak up on us. The three day pre harvest interval wait with Entrust before you can pick is challenging to match with harvest needs.
- (Tuesday, August 23) **From Tom Peerbolt, Senior Consultant, Peerbolt Crop Management:** The SWD situation is certainly getting 'interesting' in the Willamette Valley and SW Washington. There's been a big increase in trap counts and overall pressure. I know from our infield sampling that there are detectable levels in some fields, especially in post-harvest caneberries after treatment regimes have been suspended.

From our checks, post-harvest raspberries are often heavily infested and post-harvest blackberries are also often infested.

In blueberries we are picking up occasional, sporadic low levels of infestation even in some fields that have been on a strict application regime. Some of the factors that are standing out: 1) Some chronic infestations seem associated with border wild cherries that are very infested; 2) Some specific valley regions have much more pressure than others; 3) (*Caution: The following is anecdotal information only!*) Malathion, and probably the Spinosads, under high pest pressure, don't seem to give as long a residual as has been listed. Mustang Max is becoming even more the standard than it was.

## **SWD in the news**

- [UK fruit under threat from a new type of fly](#) (8/19, The Grocer)
- [Spotted Wing Drosophila in the Northeast](#) (U.S.) Northeastern IPM Center
- [New Jersey's fruit industry faces threat from new pest](#) (8/23, PerishableNews.com)
- [USDA confirms fruit pest in New Jersey](#) (8/23, The Packer)

## **Regional Monitoring** (South to North)

**Oregon Public Scouting Program for the week ending on 8/19** (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.*

- **Linn County: Strawberries (6): 18 males/11 females. Cherries (2): 110 males/ 47 females. Raspberries (3): 17 males/22 females. Blackberries (7): 103 males/57 females. Blueberries (31): 29 males/9 females. Peaches/Nectarines (5):22 males/37 females. Plum (2): 31 males/20 females. Wild Habitat (23): 488 males/299 females. Apple (2): 7 males/15 females.**
- **Benton County: Cherries (2): 7 males/1 female. Raspberries (1): 3 males/3 females. Blueberries (2): 4 males/2 females. Peaches (3):8 males/7 females. Wild Habitat (4): 6 males/10 females. Caneberry (5): 24 males/ 44 females.**
- **Marion County: Strawberries (2):6 males/6 females.**
- **Clackamas County: Strawberries (1): 4 males/2 females. Raspberries (2): 2 males/5 females. Blackberries (4): 11 males/3 females. Blueberries (6): 2 males/2 females.**
- **Washington: Blueberries (1): none. Peaches (1): none. Plums (1): none.**
- **Multnomah County: Cherries (1): 4 males/19 females. Raspberries (4): no males/2 females. Blackberries (3): no males/12 females. Blueberries (2): 3 males/4 females. Peaches (4): 3 males/9 females. Boysenberries (1): no males/2 females.**

## **Southwest Washington Public Scouting Program for the week ending on 8/19**

- **Clark/Cowlitz/Lewis Counties: Cherries (2): 22 males/24 females. Raspberries (23): 84 males/110 females. Blackberries (6): 8 males/5 females. Blueberries (29): 13 males/ 12 females. Peaches (2): 2 males/3 females. Plums (1): 7 males/ 6 female.**

## **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](#), [Skaqit County](#), [Whatcom County](#).

## **Eastern Washington--WSU Reporting Site**

[Click here](#) for the WSU Eastern Washington SWD reporting site.

- Most recent post on the WSU site:

**19 August 2011:** “First trap catch in the Othello area. The following is a summary for the Beers program traps: Trap catches remained elevated this week, with two-thirds of the catches in the south (Mattawa and Tri-Cities).

- 5,231 samples processed to date.
- 126 SWD caught to date; 43 the week of Aug 14-19.
- 123 in cherries, rest in stone fruits and blueberries.
- 34% of total caught the past week, 8.9% of the samples positive.”

### **Southwestern British Columbia**

- [Click here](#) for the 8/22/11 SWD Monitoring Report for Southwestern BC from the BC Ministry of Ag.
- [Click here](#) for the B.C. Blueberry IPM Report of 8/20 with trap counts reported.  
From this report: “SWD flies continue to be caught in blueberry fields throughout the Fraser Valley. Low levels of fruit infestation have been reported. SWD is a serious harvest contaminant. All Blueberry Growers with ripe or ripening fruit should apply insecticides for SWD at 10 day intervals to protect the fruit from infestation.”

### **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.

### **SWD 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)

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## Other Ongoing Pest Management Information

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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. [Cane Blight](#), 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
- [Redberry Mites](#), late ripening blackberries.
- [Two-spotted Spider Mites](#) raspberries.
- **Orange tortrix Leafrollers** in [Blueberries](#), [Raspberries](#), [Blackberries](#).
- [Leafroller larvae](#) blueberries, caneberries.
- [Blueberry Gall Midge](#) blueberries.

## Industry News/Resources

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### Newsletters

- [B.C. Blueberry IPM Newsletter](#) (8/20)
- [New Jersey Blueberry Bulletin](#) (8/15)
- [Michigan State Fruit News](#) (8/22)
- Market scope: [blueberries](#) [blackberries](#) [raspberries](#) [strawberries](#)  
*Recent stories & fresh market pricing for the various berries from The Packer.*
- [‘The Source’](#) (8/22) *Market updates from The Produce News.*

### Food Safety

- [E. coli outbreak reveals resellers](#) (8/18, Capital Press)

### Immigration/Labor

- [Growers get latest lowdown on E-Verify legislation](#) (8/16, The Packer) *Florida strawberry growers’ point of view.*
- [Florida farmers facing an E-Disaster](#) (8/20, Fort Myers News-Press)

### West

- [Blazing a trail for a better bounty of Oregon berries](#) (7/26, Oregonian)

### North America

- [Good things now come in large packages](#) (8/15, The Packer) *“As the popularity of the berry category grows, so does the size of the containers those berries are packed in...”*
- [Stocks of frozen berries in U.S. for July 2011](#) (8/19, FreshPlaza)
- (North Carolina) [Better berries for a better economy](#) (8/5, NC State News Center) *Story on North Carolina strawberry breeding program*

### International

- (European Union) [Prices of blueberries rising](#) (8/22, FreshPlaza)
- [Chile exports first blueberries to China](#) (8/19, FreshPlaza)

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## **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.

## **Crop work**

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### **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**

- 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

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

[08-17-11](#)

[08-09-11](#)

[08-02-11](#)