

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 and industry through their commissions and councils.

August 27, 2014

Week 35

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[Spring worries yield to solid Washington state raspberry crop](#) (8/23, Capital Press)

[Vigilance needed against spotted wing Drosophila for berry growers still harvesting](#) (8/21, MSU Extension) This is targeted at Michigan fruit growers but the information applies equally to Northwest growers.

[Saskatoon Berry or Juneberry?](#) (8/22 Huffington Post) Canada and the U.S. have very different ideas on what that berry should be called.

[The Weather Cafe](#) by Rufus La Lone [Small Fruit Cold Storage report](#)

Spotted Wing Drosophila Alert

We're recording a major increase in trap counts over the past weeks as well as a big increase in reports of fruit infestations. Take a look at the graph in the SWD weekly report.

If you've still got fruit being harvested: **Take all reasonable actions to prevent SWD infestations.**

As mentioned in some of the crop reports: ripening Himalayan blackberries give this insect a huge breeding ground. You can also sample wild blackberries near your fields to get an indication of the level of threat to your crop.

Take care of your investments.

Tom Peerbolt, SFU Editor

Disseminating information for: Washington

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

Oregon

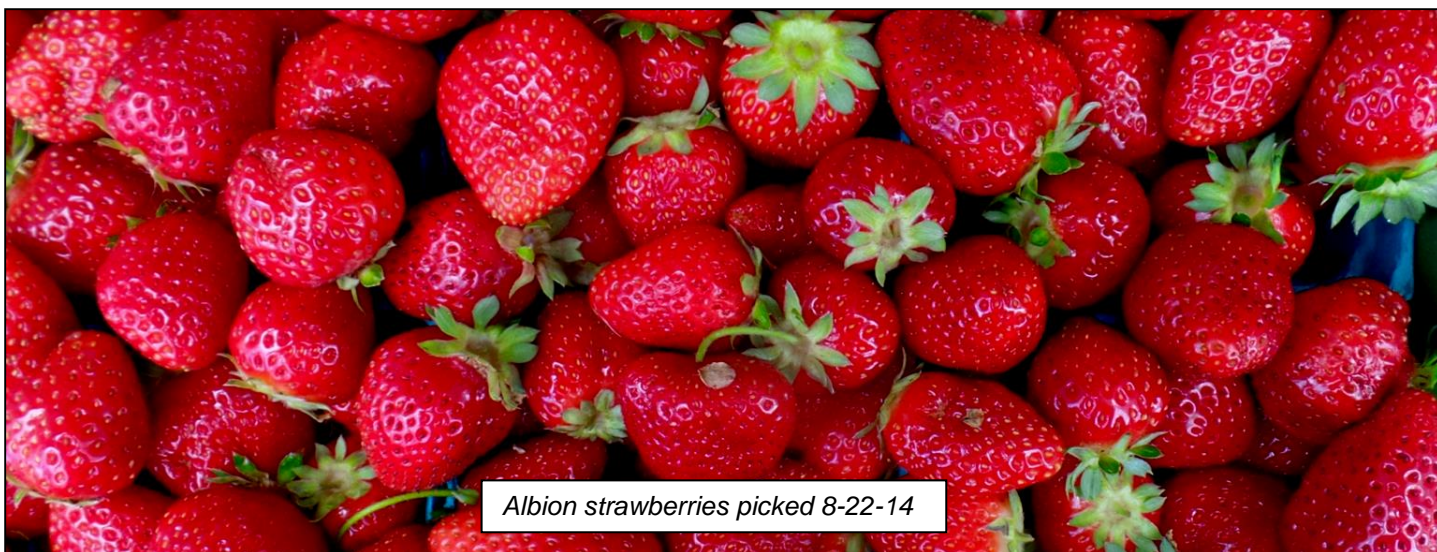
[Oregon Raspberry and Blackberry Commission](#)
[Oregon Blueberry Commission](#)
[Oregon Strawberry Commission](#)

British Columbia

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

National

[North American Blueberry Council](#)



Albion strawberries picked 8-22-14

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, 8/25) Duke, Reka, Hardiblu are finished picking for the season. We expected showers Friday through Sunday with possible thunder-showers expected on Saturday. Minimal amounts of rain though in the area of 1-2mm. First pick is happening in Elliott in the Abbotsford area and close to second pick (if not already happening) in other areas. Quality looking good overall and heat has helped with sweetness and flavour. Crop size is pretty good as well. Bluecrop is about half to three quarters through harvest. Hard to say if last pick will ripen and size up. Clean-up sprays are happening for insects. Fungicides are being applied as well to protect harvest wounds from infections.
- **Blueberries:** (Tuesday, 8/26) Elliotts are into second pick on many farms. Quality and quantity appears good but SWD larva contamination is finally beginning to be a problem in fields (Elliot, Liberty, Bluecrop) where the spray intervals are a little too long. From an observational standpoint I've noticed a big increase in fly numbers corresponding with wild blackberries and later season blueberry fruit.
 - **Additional SWD note from another source:** *Just to add to above comments on SWD: the wild blackberries are clobbered with SWD. We did a 25 fruit sample and got an average of close to ten maggots per fruit..... That is immense pressure coming from the ditches and roadsides*
- **Raspberries:** (Monday, 8/26) Post harvest cleanups continue in blueberries and raspberries. Starting to tie up some of the baby raspberry fields. Lots of mites out there but I think we've got most of the tough issue fields controlled. Primocane growth looks good overall for the post harvest period.

Northern Washington, Whatcom County

- **Blueberries:** (Monday, 8/25) Duke, Reka, and Bluecrop are all finished picking. The first pick of Liberty is done and we're half way through the first pick of Elliott. Elliott size and quality are quite good this year but soften quickly. Not holding up like normal. SWD flies are showing up in traps and fields not on a regular insecticide application program are having trouble. Aphids continue to be an issue. Maybe worst year ever for them!

Western Oregon, Willamette Valley

- **Blueberries, fresh:** (Tuesday, 8/26) Still harvesting Aurora's and some Rabbiteye. Everything else is pretty well wrapped up. Post harvest activities going on with some fungicide/insecticide applications. We got by with very little SWD issues. Nice change after the last few seasons. Yields definitely down for the season especially the later varieties.



Rabbiteye (Powderblue) Fruit

SWD report for week 35

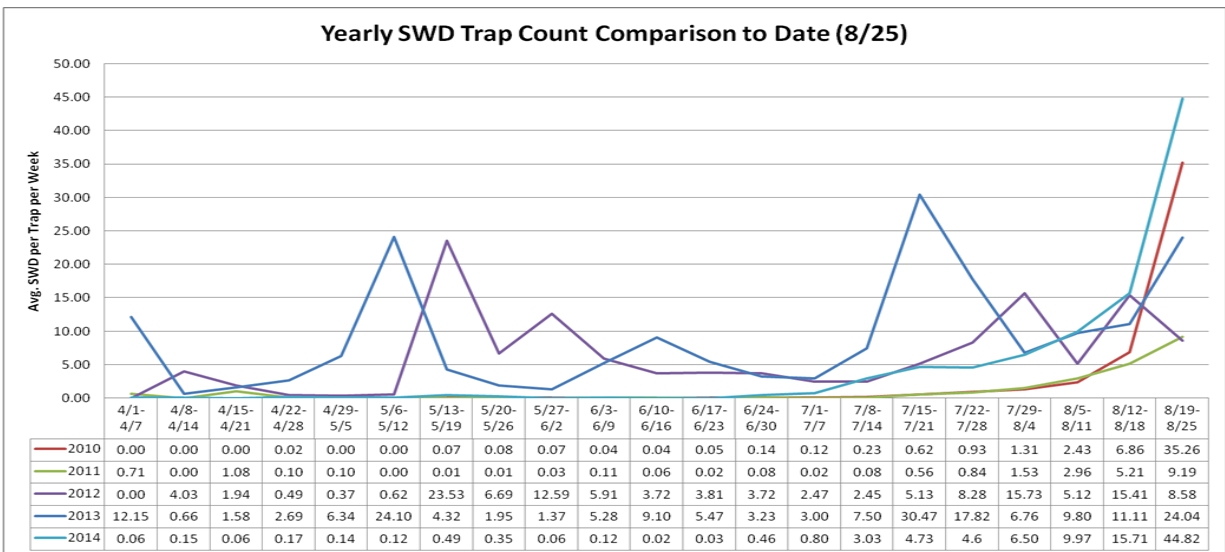
Willamette Valley public scouting program trap count comparisons

Season to date, 2010-2014

Note: This chart is an indicator of SWD population levels as compared from year to year but is *just an indicator*. We have changed some fields, some trap locations, and some trap baits and types as well as other factors that influence trap catches over the last five years as we learn and adapt. This is a dynamic, developing process—our ability to monitor and forecast this pest and the risks it poses has improved each year. Keep that in mind when interpreting this information.

Comments

- *As soon as fruit starts coloring, it's recommended to take fruit samples to check for larvae along with checking the adult traps.*
- The big majority of our sampling is from larger, commercial fields. U-pick, small fresh market, backyard berry plantings, etc. would likely have higher infestation rates.
- Risk continues to increase for crops still being harvested. If the weather turns cooler and wetter, the risk will increase even more.
- We continue to pull traps out of post harvest fields so that our overall trap numbers dropped this week from 69 to 39.
- However, even with a lot less traps overall adults caught jumped from 1084 to 1703.
- The average catch per trap per week triple from 16 to 45.
- Risk to fruit in fields is at the highest level of the year.
- Counts from adult traps over the last few weeks:
 - Week 35: SWD: 1703 Number of traps:38
 - **Week 34:** SWD: 1084 Number of traps:69
 - **Week 33:** SWD: 738 Number of traps: 74
 - **Week 32:** SWD: 520 Number of traps: 80
 - **Week 31:** SWD: 299 Number of traps: 65
 - **Week 30:** SWD: 317 Number of traps: 67
 - **Week 29:** SWD: 200 Number of traps: 66/ First larvae recovered from commercial blueberry fields.



Monitoring berries for SWD larvae in the field

[We have created a video of the larvae-checking method.](#) It's from 2010 but still pretty good.

- Put a sample of fruit to be tested (Caneberries/blueberries ~50 per sample) in a gallon size sealable plastic bag.
- Pour in enough salt water solution to allow the fruit to float (solution is: 1 cup of salt per gallon of water). Mark bag with field code/date. Gently crush/break open fruit.
- For a quick check in the field after a designated period of time (at least 15 minutes) hold the baggie up to light. This helps to see the larvae in the solution.
- 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.

Maximum Residue Levels (MRLs) for Most Common Export Markets (last updated 5/9/14)

[Blueberries](#) [Caneberries](#) [Strawberries](#)

SWD Management Material Resources

Oregon and Washington (last updated 2/24/14)

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

British Columbia

- [Spotted Wing Drosophila \(SWD\) Management in B.C. Berry Crops](#) last updated 6/24/14.

Industry news/resources

Newsletters/ berry reports

- [BC Blueberry IPM Newsletter](#) (8/23) Weekly by [ES Cropconsult](#). Sponsored by the BC Blueberry Council.
- [Whatcom Ag Monthly](#) Produced by WSU Whatcom County Extension. Includes excellent berry crop information.
- [National Berry Report](#) Daily fresh market berry reports. Hosted by the California Strawberry Commission, this report is generated from data from the USDA Agricultural Marketing Service and is updated daily.
- [Weekly Market Report](#) (8/25) from General Produce Company

Magazine/website compilations

- **The Packer:** [blueberries](#), [blackberries](#), [raspberries](#), [strawberries](#). Recent stories and fresh market pricing for the various berries from The Packer.
- **Growing Produce:** [recent berry articles](#).

- **Fresh Fruit Portal:** [blueberries](#), [blackberries](#), [raspberries](#), [strawberries](#).

Recent stories for the various berries from Fresh Fruit Portal.

Berry research blogs

- [Strawberries and Caneberries](#) by Mark Bolda, UC Davis Berry Extension Agent. **Recent Entry (8/21):** **Survey results on what resources growers use for production information** *Reports on recent insect and disease research and observations in California.*
- [Team Rubus](#) by Gina Fernandez, North Carolina State Small Fruit Specialist. **Recent Entry (7/24):** **Summer tissue sampling for fertility recommendations** *Reports on issues in blackberries and raspberries from the Southeast.*

Climate/Water

- [California farm groups fret over groundwater bills](#) (8/21, Capital Press)

Technology

- [TransFresh introduces Tectrol Storage Solutions for fresh blueberries](#) (8/19, The Produce News)
- [Balancing technology and process to maintain your cold chain](#) (8/21, Fresh Fruit Portal)

Marketing

- [Food buyers lean toward 'natural', a claim that's hard to define](#) (8/15, Los Angeles Times)
- [Berry packs evolve over time](#) (8/15, The Packer)

Regulatory Agencies

- [Feds should leave Oregon blueberry farmers alone](#) (8/21, Salem Statesman Journal)

West

- Oregon: [Berry harvester flips, injuring six](#) (8/19, Capital Press)
- [Fall is sweet spot for California strawberries](#) (8/21, The Packer)

North America

- Eastern Canada: [Wild blueberry industry promotes to Chinese media](#) (8/25, Fresh Plaza)

International

- [Peru expects major increase in blueberry production](#) (8/21, International Trade Center)
- Argentina: [Tucuman Province to begin harvest in September](#) (8/22, Arg. Blueberry Committee blog)
- Australia: [Major blueberry enterprise on track in Queensland](#) (8/7, Good Fruit & Vegetables)



[Pacific tree frog](#) in Oregon raspberry field – Photo by T. Peerbolt 8/25/14

Event calendar

- **September 10 — Washington Red Raspberry Commission** ~ Board meeting in Lynden. [Contact Henry Bierlink](#) for more information.
- **September 18 — Oregon Raspberry and Blackberry Commission** ~ At Langdon Farms Golf Club. Call 541-758-4043 or [email Phillip Gutt](#) for more information.
- **September 23 — Oregon Blueberry Commission** ~ 12 pm, at Chemeketa Events at Winema, Building 48, Room 210. Contact Bryan Ostlund for more information at 503-364-2944 or [by email](#).

- **September 24 — Oregon Strawberry Commission** ~ At Langdon Farms Golf Club. Call 541-758-4043 or [email Phillip Gutt](#) for more information.
- **October 1 — North American Blueberry Council (NABC) 2014 Fall Meeting.** Rosemont, Illinois, Hyatt Rosemont Hotel. The USHBC will hold meetings at the same hotel on Oct 1-3. [Click here](#) for the registration form and more information. [Click here](#) for the tentative schedule.
- **October 29 — Washington Red Raspberry Commission** ~ Board meeting in Lynden. [Contact Henry Bierlink](#) for more information.
- **November 11 — Oregon Blueberry Commission** ~ 12 pm, at Chemeketa Events at Winema, Building 48, Room 210. Contact Bryan Ostlund for more information at 503-364-2944 or [by email](#).
- **November 16 — 19 Entomological Society of America Annual Meeting** at the Oregon Convention Center, downtown Portland.
- **November 17-18 — National Processed Raspberry Council** ~ Seattle Airport Marriott, Seattle, WA. For more information, contact Tom Krugman, 360-354-0948.
- **November 19 — Oregon Strawberry Commission workshop** "Fresh market strawberries: What it takes to be successful." 8am-7pm, lunch and dinner provided. Admittance is free. Woodburn, OR. More details to follow. Contact Lora Liegel by phone (503-289-7287) or [email](#) for more info.
- **December 3 — Washington Red Raspberry Commission** ~ Annual Meeting in Lynden in the evening. [Contact Henry Bierlink](#) for more information.
- **December 4-5 — WSU Small Fruit Conference & Lynden Ag Show**

Week 35--- Pest management & field work

Leaf/tissue analysis and soil testing

Post harvest is the best time to do most soil and leaf testing for nutrient management planning. Nutrient levels are at their lowest and you can get the best information on what nutrients the recent crop might have had too much of, or too little.

- **Blueberries:** [OSU's Blueberry Nutrient \(and testing\) Guidelines](#) (2006)
- **Blackberries and Raspberries:** [OSU's Caneberry Nutrient \(and testing\) Guidelines](#) (2006)
- **Supplement to the guidelines linked above:** [Nutrient Management of Berry Crops in Oregon](#) (2013) from OSU Extension Berry Crops Specialist, Dr. Bernadine Strik
- **Video:** [Caneberry Nutrient Management](#) (37 minutes)
Dr. Bernadine Strik, 3/20/14, Raspberry & Blackberry Production Workshop, Woodburn, OR.



Crop Work/Pest Management Activities Week 35

All crops

- Pay attention to new plantings of all berries for weeds, water, insects, diseases, and nutrient deficiencies.
- Maintain SWD monitoring and management plan. ([blueberries](#), [raspberries](#), [blackberries](#), [strawberries](#))
- Weed management.
- Post-harvest—soil and leaf test for evaluation of nutrients.
 - [OSU's Blueberry Nutrient \(and testing\) Guidelines](#)
 - [OSU's Caneberry Nutrient \(and testing\) Guidelines](#).
- Post harvest—can treat for SWD if field is adjacent to vulnerable fruit crop.
- Scout for Root Weevil adults [Black Vine](#), [Rough Strawberry](#), [Strawberry Root Weevils](#).

Blueberries

Harvest ongoing

- Scout for [mummyberry](#) infected fruit.
- Scout for leaf symptoms—poor growth, nutrient deficiencies, water stress, herbicide damage, etc & determine if actions are needed.
- Maintain [bird damage management](#).
- Scout for weevil notching on leaves and for adult weevils.
- Scout for [leafroller larvae](#) feeding.
- Stay on top of [Aphids/Scorch Virus](#) management where Scorch virus transmission is an issue.
- Scout for virus symptoms and send in samples for testing as needed. ([Scorch](#), [Shock](#)).
- Scout for [Blueberry Gall Midge](#) damage.
- Scout for berry symptoms like green fruit botrytis, hail damage, [Mummyberry](#), etc.
- Can treat for [Alternaria Fruit Rot](#) and [Anthracnose Ripe Rot](#) prevention if needed.
- Scout for scale insects.
- Can use pheromone traps to monitor for leafrollers.
- Scout for berry symptoms like green fruit botrytis, mummyberry, etc.

Raspberries

Processed harvest finished

Scout for cane collapse symptoms & determine cause ([Phytophthora Root Rot](#), Verticillium, crown borers, overwatering, etc.)

Post harvest

- Scout for [Yellow Rust](#) and assess treatment options.
- Scout for [Two-spotted Mites](#) and treat as needed.

For late season, fresh market:

- Scout for weevils and treat as needed ([Black Vine](#), [Rough Strawberry](#), [Strawberry Root Weevils](#)).
- Scout for virus symptoms and send in samples for testing as needed ([RBDV](#), [TRsV](#))
- Scout for [fruit mold](#) and treat as needed.
- Scout for [Yellow Rust](#) and assess treatment options.
- Scout for [Two-spotted Mites](#) , [Yellow mites](#) and treat as needed.
- Scout for [aphids](#) and treat as needed.
- Scout for [leafroller larvae](#).

Blackberries

Mid season processed harvest finished/Late ripening variety harvest ongoing

- Scout for leafroller larvae ([O.T.](#), [OBLR](#)) and treat as needed to prevent fruit contaminant problems.
- Scout for virus symptoms and send in samples for testing as needed. ([RBDV](#))
- Scout for and treat as needed [Blackberry Rust](#) in Evergreen blackberries.
- Scout for [Twospotted Spider Mites](#) and treat as needed in susceptible cultivars.
- Scout for [Cane and Leaf Rust](#).
- Scout for [aphids](#) and treat as needed.
- Scout for cane collapse symptoms & determine cause ([Phytophthora Root Rot](#), Verticillium, crown borers, overwatering, etc.)

Strawberries

Processed harvest (June bearers) finished throughout region. Fresh market harvest ongoing.

All strawberries

- Evaluate weak growing areas and check plants for weevil larvae, root rot and/or cold damage.
- (South) Can scout for [Strawberry Crown Moth larvae](#) ..
- Scout for weevil adults and notching.

Processed market-June bearers—finished harvesting

- [Weed Control at strawberry renovation](#) (6/26/12, Michigan State Extension)
- Mow and treat immediately for [SCM/SWD](#) if needed.
- Mow and renovate 2-4 weeks after harvest unless pest pressure require mowing and treating sooner.
- Apply main fertilizer application as needed.

Fresh market-still harvesting

- Scout for [Lygus Bugs](#) and treat as needed.
- Scout for fruit damage symptoms like cat facing, [slug damage](#), anthracnose, etc.
- Can apply slug bait as needed.
- Scout for [Powdery Mildew](#) and treat as needed.
- Scout for [Twospotted Spider Mites](#) and predatory, beneficial mites.
- Scout for [aphids](#), lady beetles, aphid mummies (parasitized aphids), and other beneficial insects that feed on aphids.
- Scout for fruit quality issues such as mold ([Botrytis](#)).

Archived Small Fruit Updates

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

[34-SFU08-20-14](#) [33-SFU08-13-14](#) [32-SFU08-06-14](#)