

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.

July 30, 2014

Week 31

Table of Contents

- [Regional reports](#)
- [SWD weekly report](#)
- [Industry news/resources](#)
- [Event calendar](#)
- [Pest management and field work](#)
- [Crop 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:** Leaf/tissue testing and pH monitoring are most critical. Complete soil tests don't correlate as 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 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.

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



Blueberry harvest in the Willamette Valley

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](#)

Processing blackberry cultivars-- fruit comparison & evaluation discussion

- **Thursday, July 31 — Willamette Valley Berry Fieldman/Grower meeting ~ 8 am at [North Willamette Research and Extension Center](#). Chad Finn, USDA Plant Breeder, will be joining us to**

discuss blackberry variety developments. All growers, fieldmen and anyone else are welcome. We should have a first sample of some processor run IQF Columbia Star fruit to take a look at. Free event. Call the Peerbolt Crop Management office with any questions—503-289-7287



[Unger Farm Store & Berry Farm, Cornelius, OR 7-25-14](#)

Regional reports

British Columbia, Fraser Valley

Big rain (2 in. some areas) last mid-week put a bit of a crimp in harvest of all berries. I think it was a nice bit of a break for some. Most blueberry varieties came through it ok. Only seeing variable damage on Bluecrop with a bit on Reka in some areas as well.

- **Blueberries:** (Monday, 7/28) Some Bluecrop harvesting starting. There seems to be a bit of a difference in amount ripe from field to field even in the same area which will help to spread out the harvest hopefully. Duke second harvest finished by machines with third beginning today/tomorrow. Some growers still working through second hand harvest on Dukes. There will be at least three picks on some Duke fields that have a heavier crop. Reka harvesting started last week and continuing through this week. When spraying for SWD growers have been throwing in fungicides as well. Expected warm weather for the next 4-5 days at least.
- **Blueberries:** (Monday, 7/28) Lots of fruit coming in is taxing packer capabilities periodically. Duke still picking with some fields wrapping up by mid-week. Reka started, Bluecrop and Draper picking. Liberty is coming on fast (very early) and could be ready for first go in 10-12 days. More and more colour on Elliot. The warm May weather contributed some big heat units and really kick-started this crop with the resulting plant development we're seeing now across all varieties. If this trend is a keeper, we've really got to look at crop planning differently from varietals, pollination through to packing the crop.
- **Raspberries:** (Monday, 7/28) Raspberries got a shot in the arm from the mid-week rain. Quality improved (size, very little mold) and the pick probably got a few days extension. But by this coming weekend I expect the majority will be done. Some fields are seeing increased mite activity so there may be a need for some post-harvest corrective measures.

Northern Washington, Whatcom County

- **Blueberries:** (Tuesday, 7/29) The inch and a half of rain caused some splits but overall the crop is excellent. Probably record yields state wide. A lot machine harvested coming in with Duke, Reka and Bluecrop. Some Duke fields are just starting, grower should get about 80% of the crop with one pick.
- **Raspberries:** (Tuesday, 7/29) We got about an inch and a half of rain last Tuesday. While it caused some initial mold issues the main affect was to reinvigorate the fields still picking. Wakefield probably have another two to three weeks left and the fruit size had been tailing off. It's now sized up again. Stronger Meeker and even some stronger Chemainus fields have done very well this year in contrast the ones that suffered winter damage and produced very poorly.

Western Oregon, Willamette Valley

- **Blueberries, fresh:** (Tuesday, 7/29) Looks like our temperatures are going to stay on the warm side for at least the next week with highs around 90. Elliots have started hand harvesting for fresh. Auroras are

coloring fast. Legacy, Liberty are going strong for fresh market. Fruit size and overall yields are lower in many fields than last year.

- **Blueberries, processed:** (Tuesday, 7/29) A lot of fruit coming in right now. First pick of Bluejays along with second picks of Duke, Reka, Bluecrop and most things. Only major varieties ones not started are Jerseys that will start any day and Elliotts. Fruit size is down from last year and the predicted high temps near 90 for the next week won't help that. Overall crop yields also look like they'll be down some for most guys,
- **Blackberries, processed:** (Tuesday, 7/30) Marions should finish by the end of this week. Pretty much just wrapping things up. A few SWD larvae picked up in last picks but not much pressure on the crop this year thanks to the cold winter that knocked them back. Overall it still looks like we'll end up with 50-60% as many Marions as in a normal year due to the winter damage. Guys with Evergreens are getting cleanup sprays on. Probably start them around the 8th or 9th of August.

Blueberry fruit development over the past week & compared to 2013

Notes:

- *The same fields are being sampled each week are in the Forest Grove/Hillsboro area.*
- *This is an indication of stage of development only. Keep in mind that variations due to the subjective nature of the protocols are part of the process.*

Northwestern Willamette Valley

Top – 7/25/14 Middle – 7/19/14 Bottom – 7/26/13

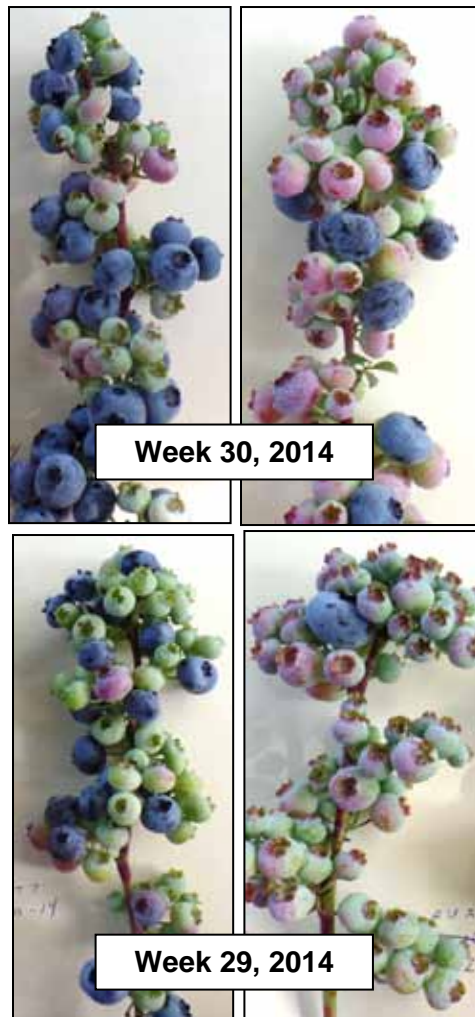
Elliott

Aurora

Some Elliott fields started picking in week 30 in 2014

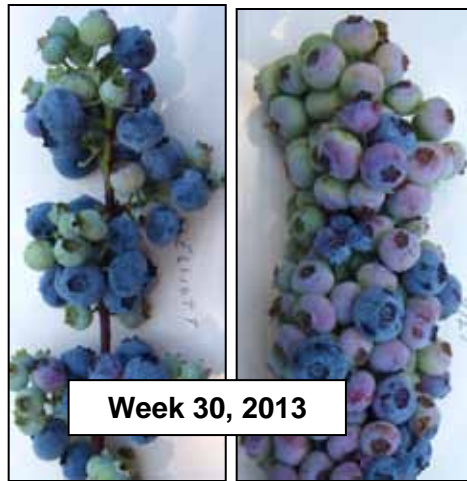
Aurora will start picking in week 31 in 2014

Bluejay and Liberty started picking in week 29 in 2014



Bluejay started picking in week 29 & Liberty started in week 30 in 2013

Elliott and Aurora started picking in week 30 in 2014



Elliott

Aurora

SWD report for week 301

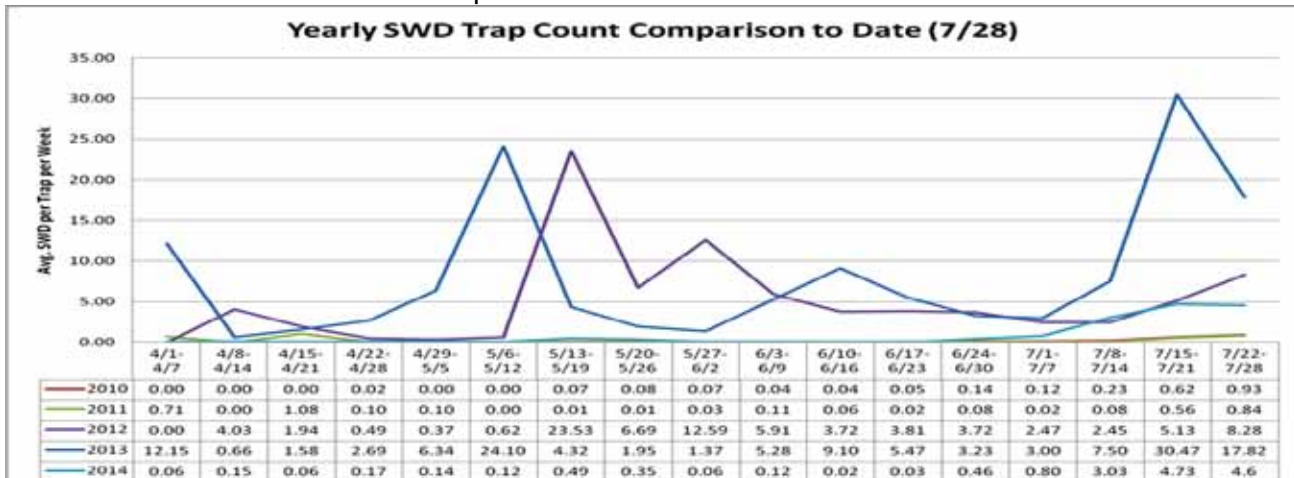
Willamette Valley public scouting program trap count comparisons

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

- *When fruit starts coloring, it's recommended to take fruit samples to check for larvae along with checking the adult traps.*
- Adult trap counts remained very close to last week's average numbers.
- Factors that affect these counts right now include: insecticide treatments, many fields ending harvest and variations in temperature and humidity.
- Average trap catches over the past week increased in caneberries and blueberries. Average catches decreased in cherries.
- Counts from adult traps over the last six weeks:
 - **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.
 - **Week 28:** SWD: 63 Number of traps: 79/ First larvae recovered from commercial caneberry fields.
 - **Week 27:** SWD: 37 Number of traps: 79
 - **Week 26:** SWD: 2 Number of traps: 80



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](#) (7/27) 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](#) (7/28) from General Produce Company
- [The Source](#) (7/28) Market reports from The Produce News.

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 (7/28):** **Management tips for spotted wing drosophila on a small scale** *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.*

Research/Breeding

- [Research investment builds berry varieties](#) (7/23, The Packer)
- [Italian strawberry varieties tested in California and Mexico](#) (7/29, Fresh Plaza)

The Packer

Berry stories from the Packer this week all dated 7/23 & 24.

- [Berry supplies seem strong](#)

- [Blueberries see growth in demand, supplies](#)
- [Summer berries business updates](#)
- [Raspberries, blackberries increase their following](#)
- [Shoppers begin to preplan berry purchases](#)
- [Birds bring problems, some benefits, to berries](#)
- [Consumers look for more organic berries](#)
- [MBG opens Georgia blueberry facility](#)

West

- [BC Blueberry Council reveals plans for government export support funds](#) (7/25, Fresh Fruit Portal)

North America

- [Naturipe opens largest berry processing plant in Southeast U.S.](#) (7/23, Fresh Fruit Portal)
- [Michigan growers planting Saskatoon berries](#) (7/21, Fresh Plaza)

International

- Morocco: [Blueberries from Morocco cleared for U.S. Access](#) (7/29, The Packer)
- Netherlands: [Dutch blueberry company expecting 'best crop in five years'](#) (7/23, Fresh Fruit Portal)



Event calendar

- **July 31 — Willamette Valley Berry Fieldman/Grower meeting** ~ 8 am at [North Willamette Research and Extension Center](#) Chad Finn will be joining us to discuss variety development—strawberries, caneberries and blueberries. Call or [email](#) Peerbolt Crop Management for more information.
- **August 14 — Smart Sprayer Demonstration** ~ 10 am at Hans Nelson and Sons Nursery, 31020 SE Waybill Road, Boring OR. [Click here](#) for more information.
- **August 21 — Willamette Valley Berry Fieldman/Grower meeting** ~ 8 am at [North Willamette Research and Extension Center](#) Agenda to be announced. Call or [email](#) Peerbolt Crop Management for more information.
- **August 20 & 21 — North American Strawberry Growers Association** ~ Summer tour, in BC. [Click here](#) for the NASGA website.
- **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. [Click here](#) for more information and to register.
- **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.

Week 31--- Pest management & field work

Pest management activities

Scout for: [Mummyberry](#), blueberries. [Mummyberry primer from MSU](#).

- *During harvest evaluate the level of mummyberry infections and the areas of the field that are infected.*
- Infected fruit is now easy to distinguish from healthy fruit.
- The infected fruit colors earlier, shrivels, whitens and drops from the bushes easily when disturbed.
- The inside of an infected berry will be filled with white fungal mycelium.
- Sort out and remove from field as much of the infected fruit as possible.
- Use this yearly mummyberry information to assess and plan next year's mummyberry prevention program.



Right now is an excellent time to scout for the mummyberry especially if you've got weed mat.

Scout for and treat as needed: [Yellow rust](#), raspberries.

Scout for: **Aphids**, blueberries.

- The action threshold for aphids in blueberries is very low in any area where [Scorch virus](#) is a concern.
- Aphids spread Scorch Virus and killing the aphids is the most effective way to prevent new infections.
- In areas where Scorch Virus is not a concern, the potential economic damage from aphids is much less and larger populations can be tolerated before management actions are taken.
- With Scorch Virus, infected bushes **do not** return to productivity and should be removed ASAP to limit the disease spread.

Scout for and evaluate if management action is needed: [Twospotted mites](#), raspberries.

Scout for and determine if management actions are needed: Root Weevil adults, all crops [Black Vine](#), [Rough Strawberry](#), [Strawberry Root Weevils](#).

Additional, ongoing pest information

Diseases

- [Phytophthora Root Rot](#), raspberries.
- [Blackberry Rust](#), (Phragmidium Rust) Evergreen blackberries.

Insects/Mites

- [Azalea Bark Scale](#), blueberries.
- [Raspberry Beetle](#), northern raspberries.
- [Blueberry Gall Midge](#), blueberries.
- [Strawberry Crown Moth](#) southern strawberries and caneberries

Crop Work Week 31

All crops

- ***As fruit starts coloring, begin sampling fruit for SWD infestation, continue sampling throughout harvest and treat as needed.***
- Weed management.
- Fertility management.
- Water management.

Blueberries

- ***Harvest ongoing.***
- Bird management.
- Scout for [mummyberry](#) infected fruit.
- Stay on top of aphid management where scorch virus transmission is an issue.
- Scout for [leafroller larvae](#) and treat as needed.
- Scout for virus symptoms and send in samples for testing as needed ([Shock virus](#); [Scorch virus](#)).
- Scout for [winter moth/bruce spanworm](#) larvae.
- Scout for scale insects.
- Scout for weevil notching on leaves and for adult weevils.
- Scout for azalea bark scale in southern fields.
- Scout for blueberry gall midge damage.
- Can use pheromone traps to monitor for leafrollers.
- Scout for berry symptoms like green fruit botrytis, hail damage, mummyberry, etc.
- Can apply clean up insecticide just before harvest for crop contaminant management.
- Scout for berry symptoms like green fruit botrytis, hail damage, Mummyberry, etc.

Raspberries

- ***Harvest ongoing in north. Finished in south.***

- Scout for yellow rust and assess treatment options.
- Scout for yellow mites and [twospotted mites](#).
- Scout for virus symptoms and send in samples for testing as needed.
- Can have pheromone traps out to monitor for leafrollers.
- Scout for Cane Blight and Cane Botrytis symptoms.
- Watch for fruit molds and treat as needed.
- Scout for weevils and treat as needed.
- (North) Scout for raspberry beetle feeding symptoms.
- Scout for fruit mold and treat as needed.
- Scout for yellow rust and assess treatment options.
- Scout for aphids and treat as needed.
- Scout for leafroller larvae.

Blackberries

- **Harvest ongoing.**
- Scout for leafroller larvae and treat as needed to prevent fruit contaminant problems.
- Can have pheromone traps out to monitor for leafrollers.
- Can apply fungicides for fruit/blossom rot from 10% bloom through the end of bloom.
- Scout for virus symptoms and send in samples for testing as needed.
- Scout for cane and leaf rust.
- Watch for fruit molds and treat as needed.
- Scout for and treat as needed blackberry rust in Evergreen blackberries.
- Scout for two spotted spider mites and treat as needed in susceptible cultivars.

Strawberries

- **Processed harvest 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.
- Scout for weevil adults and notching.
- **Processed market June-bearers—finished harvesting**
- [Weed control at strawberry renovation](#) (6/26/12, Michigan State Extension)
- Treat post harvest for SWD if needed especially if field is in close proximity to other ripening berry/stone fruit crops.
- Mow and treat immediately for SCM if needed.
- Mow and renovate 2-4 weeks after harvest unless pest pressure require mowing and treating sooner.
- **Fresh market-still harvesting**
- Scout for Lygus bugs.
- Scout for fruit damage symptoms like cat facing, slug damage, anthracnose, etc.
- Monitor ripe and ripening fruit for SWD larvae.
- Can apply slug bait as needed.
- Scout for Powdery Mildew and treat as needed.
- Scout for Two Spotted 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 and cat facing.

Archived Small Fruit Updates

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

[30-SFU07-23-14](#) [29-SFU07-16-14](#) [28-SFU07-08-14](#)