

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 23, 2014

Week 30

Table of Contents

- [Regional reports](#)
- [SWD weekly report](#)
- [Industry news/resources](#)
- [Event calendar](#)
- [Pest management and field work](#)
- [Crop work](#)

British Columbia: *Same story, two takes on it-*

- [Bumper Blueberry Crop Predicted](#) (7/21, *The Province*)
- [Record Harvest has some Farmers Crying the Berry Blues](#) (7/21, *Business Vancouver*)

Mt. Vernon, WA: [Group urges support for besieged berry farm](#) (7/15, *Capital Press*)

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

Spotted wing drosophila

- Numbers of adults in traps as well as larvae in berries continues to rise as expected.
- Cooler, wetter weather increases the risk of fruit infestations.
- Message is the same: Stay with the insecticide management programs we've used the last few years to ensure a quality, clean crop.

Tom Peerbolt, SFU editor

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

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](#)



Left to Right: Marion, Black Diamond, Columbia Star. From the OSU test planting in Aurora (June 28, 2013).

Regional reports

British Columbia, Fraser Valley

- **Blueberries:** (Sunday, 7/20) Harvest continues to roll along. Second pick Duke happening by machine with first pick Reka to follow right after. Some hand harvest Duke in second -third pick depending on where field is located in valley. Quality is excellent at this point. We have been experiencing cooler weather for the last few days with some showers here and there. Some rain expected Wednesday and Thursday and drying out after that. Some growers have been throwing a fungicide in with SWD control. Some Bluecrop harvesting could begin by the end of the weekend. SWD numbers have been increasing.
- **Blueberries:** (Monday, 7/21) Lots of blues to pick now. Bluecrop is early and some hand harvest occurred last week. Draper picking this week. Even seeing Liberty with colour and the odd Elliot with some blue fruit (not happy about that). Cooler weather should slow things down a bit but mid-week rain could put a damper on the party. Hopefully, we'll see small isolated showers from a blueberry perspective.
- **Raspberries:** (Monday, 7/21) Raspberries continue to pick well but size is small. This crop would have benefitted from rain this past weekend. But for the most part none was seen. Showers this week may help with the tag end of the crop. The pick is about 7-10 days from completion.

Northern Washington, Whatcom County

- **Blueberries:** (Monday, 7/21) Duke harvest is in full swing. Most process pick by machine will be going this week. Most all first pick by hand is finishing up now. Expect volumes of process to balloon this week. Birds are ever present and SWD is beginning to build. Early Bluecrop is getting ready and Reka is getting ready also. Many growers are experiencing frustration with Draper this season....again.
- **Raspberries:** (Monday, 7/21) Raspberries are winding down especially the weaker fields. Quality fruit for IQF is also dropping off. Stronger Wakefield and Meeker fields are still going pretty strong. Many of the stronger Meeker fields had excellent yields and quality this year. Had a much better fruit quality run in the heat than we expected.

Western Oregon, Willamette Valley

- **Blueberries, fresh:** (Tuesday, 7/22) Drapers are on second pick. Duke are basically done although some machine pick clean ups are going on. Liberty have started. The Duke crop was great with good yields and fruit size. But the fruit size and overall yields on the later fresh market cultivars looks like they'll be down. Probably an effect of our hot weather. Now we're into a showery, cool period. Things have slowed down considerably both in terms of fruit ripening and in terms of how much is coming into the plant.
- **Blueberries, processed:** (Tuesday, 7/22) We've got a lot of fruit coming in right now. Good quality and quantity. Bluecrop and Draper are the main ones but also later pick Dukes along with some Patriot and Reka. Fruit size is down over last year but berry counts are up.
- **Blackberries, processed:** (Tuesday, 7/22) Processed blacks are winding down considerably. Don't like this cool, wet weather. The berries that have dried up and shriveled get loosened up and are falling on to the belts. Should be finished with Marions and Black Diamond by this weekend. Could still have some

Kotatas coming in this week. Grower price remains high with overall crop quantity about where we've been saying—maybe 50-60% of normal. I'm thinking Evergreens should start around the ninth 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 – 7/11/14 Middle – 7/4/14 Bottom – 7/12/13

Bluejay

Liberty

Elliott

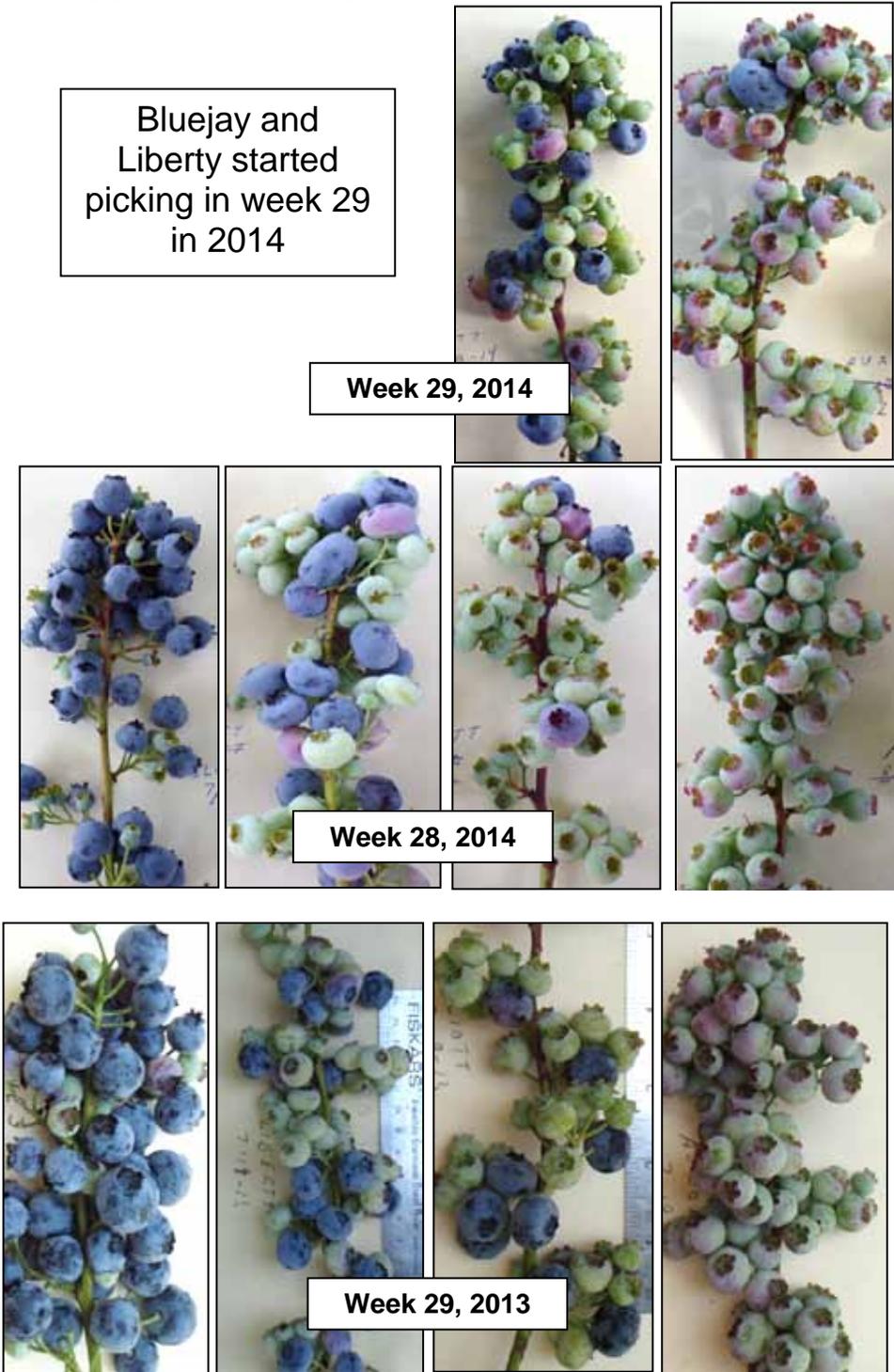
Aurora

Bluejay and Liberty started picking in week 29 in 2014

Week 29, 2014

Week 28, 2014

Week 29, 2013



SWD report for week 30

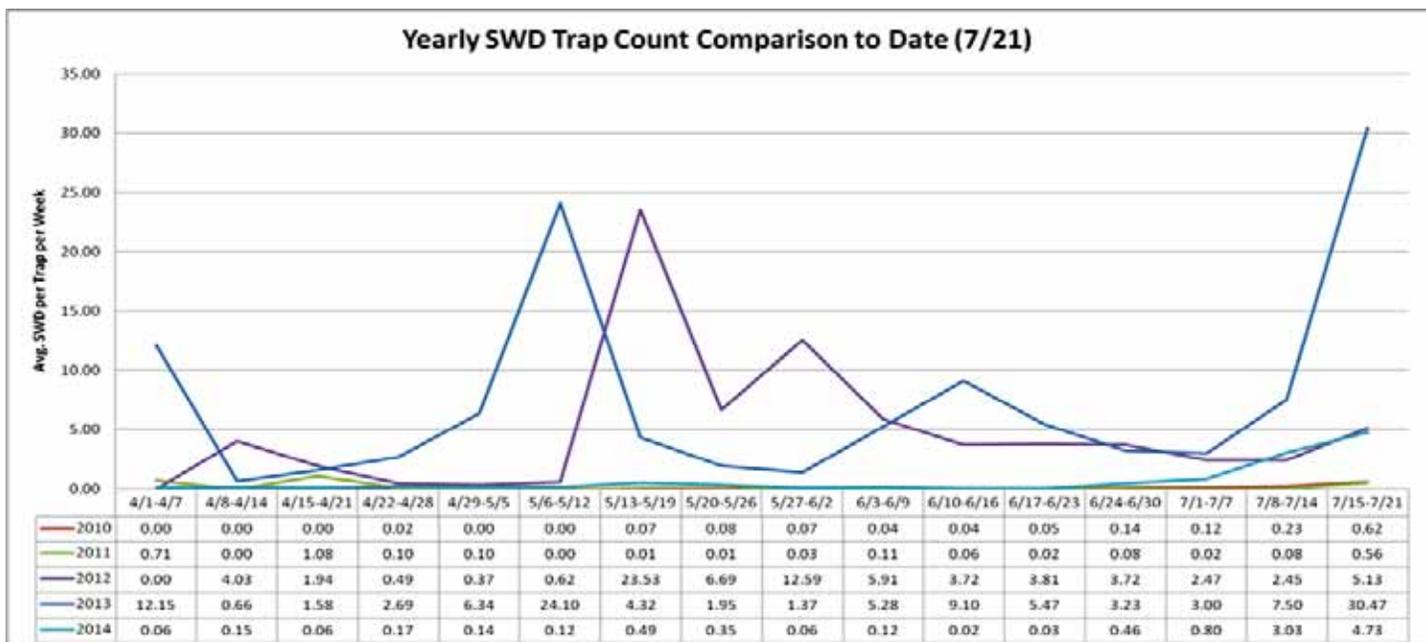
Willamette Valley public scouting program trap count comparisons

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.*
- Counts from adult traps over the last three weeks:
 - **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](#) (7/19) 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](#) (7/21) from General Produce Company
- [The Source](#) (7/21) 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 (7/21):** **Survey of Research and Extension in Strawberry Soilborne Diseases** *Reports on recent insect and disease research and observations in California.*
- [Team Rubus](#) by Gina Fernandez, North Carolina State Small Fruit Specialist. **Recent Entry (7/17):** **Blackberry flowers to fruit: most fruit ripe or picked!** *Reports on issues in blackberries and raspberries from the Southeast.*

International

- South America: [USDA tests South American fruit programs at U.S. ports](#) (7/15, The Packer)
- Chile: [Exporter to launch fresh, Amira raspberry shipments](#) (7/17, Fresh Fruit Portal)
- Poland: [Prices offered by fruit processing sector not covering production costs](#) (7/21, Fresh Plaza)



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.
- **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 20 & 21 — North American Strawberry Growers Association** ~ Summer tour, in BC. [Click here](#) for the NASGA website.
- **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 30--- Pest management & field work

Pest management activities

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](#).

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

- Infected fruit is now becoming easy to distinguish from healthy fruit.
- The infected fruit colors earlier, shrivels, whitens and drops from the bushes easily when disturbed.
- Right now this fruit could be mistaken for green berry botrytis infected fruit.
- 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.
- During harvest evaluate the level of Mummyberry infections and the areas of the field that are infected.
- Use this yearly Mummyberry information to assess and plan next year's Mummyberry prevention program.

Additional, ongoing pest information

Diseases

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

Insects/Mites

- [Azalea Bark Scale](#), blueberries.
- [Raspberry Beetle](#), northern raspberries.
- Root Weevils, strawberries and blueberries. [Black Vine](#), [Rough Strawberry](#), [Strawberry Root Weevils](#) .
- [Blueberry Gall Midge](#), blueberries.
- Mites in raspberries: [Twospotted mites](#) and [Yellow mites](#).

- [Strawberry Crown Moth](#) southern strawberries

Crop Work Week 30

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

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

- ***Sample fruit for SWD infestation, continue sampling throughout harvest and treat as needed.***
- ***Harvest ongoing in north. Finishing 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

- ***As fruit starts coloring, begin sampling fruit for SWD infestation, continue sampling throughout harvest and treat as needed.***
- ***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.
- Can apply horticultural oil for Redberry mite management at green fruit stage 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

- *After harvest, can treat for SWD control if field is adjacent to other susceptible, ripening, crops.*
- [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.](#))

[29-SFU07-16-14](#) [28-SFU07-08-14](#) [27-SFU07-01-14](#)