

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.

April 15, 2015

Week 16

Table of Contents

[Regional Reports](#)

[Blueberry Bud Development](#)

[Disease Alerts](#)

[Industry News](#)

[Crop Work/ Pest Management](#)

[Events and Meetings](#)

- [Sucrose improves insecticide activity against *Drosophila suzukii*](#) (2/5, *Journal of Economic Entomology*)
--Here's a [summary of the findings](#) (4/10, *Fresh Plaza*)
- [Keep Berries Cool During Postharvest](#) (April, *FGN*) "... The number one most common error growers make in postharvest handling of berries is not cooling berries quickly enough..."

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

Spotted Wing *Drosophila* – 2015

Many thanks to the USDA (through the Northwest Center for Small Fruit Research and the SCRI project) and the Oregon Department of Ag for funding the monitoring and reporting system we've had in place the last five years in Oregon and southwest Washington. It was critically needed.

However, the funds to continue the system no longer exist.

But we still have a lot to learn about managing this insect.

The risk potential for SWD damage in northwest berry crops is very high this year. Maybe the highest ever.

As the editor of the Small Fruit Update, I'll do my best to provide as thorough and as timely information as I can.

Minus the public regional monitoring/reporting system, present resources include:

- Printed articles and research like the one above on adding sucrose to tank mixes.
- Information from our regional public researchers and extension. Many of whom continue doing SWD research and some monitoring.
- Industry sources who voluntarily contribute information on SWD status in the fields and packing/processing plants.
- Our own client-based scouting and monitoring regional network. However, that private network is based on proprietary information and, while giving us some reportable insights into real-time SWD trends, we will not be sharing the data in this newsletter.

So this year will be a challenge. Certainly in the fields and packing plants, but also for collecting and disseminating regional SWD information.

Know your fields, know your options, stay informed.

Let's get through this one together!

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

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

National

[North American Blueberry Council](#)



First open blooms in Obsidian blackberry field, April 10, 2015

Regional reports

British Columbia, Fraser Valley (Monday, 4/13)

- **Blueberries:** The latter part of last week was not very good for pollinating insects. And the coming days look cool and wet. It's been very cool (8-12 C, 47-55 F) and windy. We've had some localized hail causing minimal bloom damage but some leaf shredding. This cool weather is stretching the bloom out more than I anticipated before. The big push seems to have faded somewhat. There is still significant flowering out there but it's not being worked on very effectively. Vegetative growth also appears stalled. We really need some warm, calm days to get things moving again. Shock virus symptoms are occurring, especially in Liberty.
- **Raspberries:** Meeker raspberries continue to look ugly. Colour is pale and growth is slow. Fertilizer is on, so we really need some heat to see how well these plants are going to recover. Starting to see the initial stage of yellow rust appearing in Meeker and Chemainus.

Northern Washington, Whatcom County (Monday, 4/13)

- **All berries:** It figures. Now that bee time is here....the cold and wet has arrived for us. Some pollination, but very spotty. Many growers were late getting bees in field. We had close to a frost over weekend. Weather was cool and windy. Flowering is stretching out on blues. Not sure that's a good thing. Raspberries are slowing as well. Winter damage is very evident. Mites in strawberries are prevalent for whatever reason.

Western Oregon, Willamette Valley

We're going into a stretch of sunny weather with highs around (and above) 70 F (21 C) starting Friday! Lots of bloom. Lots of Bees.

- **Blueberries:** (Tuesday, 4/14) It's generally been a good week for all the berry crops. Blueberries are setting fruit and seem to be better 'coordinated' than previously. Bloom slowed down some and vegetative growth jumped. There are some great looking fields. Bees seem to be getting some reasonable pollination windows although it's been cooler with some rain and hail moving through.
- **Blackberries:** (Tuesday, 4/14) Blackberries have occasional open blooms and should move a lot this coming week with 70 degree weather coming. That should set the clock ticking for predicting first harvest. They are starting bloom at least a week ahead of last year. Last year Marions started about July 2nd with Black Diamonds about a week before that. So..this year?
- **Strawberries:** (Monday, 4/13) Totems probably will hit 19% bloom this week. First bloom sprays are going on about a week earlier than last year. Hail caused some damage to both blossoms and developing fruit in some fields. With the early crop development, some fields, especially older/weaker ones, seem to have a heavy fruit set for the amount of foliage. Some growers have been putting on a little spring nitrogen to try to balance them out. Got to be careful with spring nitrogen—easy to overdo it.



Hail damage in Albion Strawberries, April 10, 2015

Maximum Residue Levels (MRL's)—Updated March 18, 2015

Thanks to Joe DeFrancesco, OSU Pesticide Specialist, for compiling and making available these sheets. They cover MRL levels for most of our pesticides in the USA, Canada, Japan, Korea, Taiwan, the EU/UK, and Codex.

- Go here for [Blueberries](#)—Last updated March 18, 2015
- Go here for [Raspberries & Blackberries](#)—Updated February 15, 2015
- Go here for [Strawberries](#)—Updated February 9, 2015

Processed Raspberry Industry Survey

The National Processed Raspberry Council (NPRC) is conducting an online survey about growing raspberries for processing. The purpose of this survey is to gather opinions from growers regarding the NPRC and its programs. This confidential online survey should take no more than 15 minutes to complete. If you grow raspberries for processing, please take this survey and share your thoughts with the NPRC.

Click here to take survey: www.RaspberrySurvey.com

Blackberry Growers Needed for Advanced Selection Trials

These blackberry selection trials are funded by the [Oregon Raspberry and Blackberry Commission](#). The [Washington Red Raspberry Commission](#) and the [Northwest Center For Small Fruits Research](#) also contribute to regional on farm trials for fresh and processed caneberry selections.

- The preferred situation would be a commercial, machine harvested trial of 50-250 plants per trial to be able to test commercial and processing viability.
- But given the numbers available and short time frame smaller plantings would also be considered.
- If you're interested call or email Tom Peerbolt (503-289-7287, tom@peerbolt.com)

Available now:

- | <u>Selection Number</u> | <u>Brief description & overall number of plants available</u> |
|---|---|
| ○ ORUS 3453-2 | Marion type, thornless, sweet flavor, might work for fresh also.(350) |
| ○ ORUS 2635-1 | Erect growing habit, yields 50% better, larger size than Marion, thorny.(88) |
| ○ ORUS 3172-1 | Marion type, Harvests two weeks later than Marion, thornless.(250) |
| These last two are selections with great potential in search of a market for high quality, small sized blacks. Both are machine harvestable. | |
| ○ ORUS 2855-1 | Thornless hybrid, 50% wild, high yields of very small, high quality fruit.(350) |
| ○ ORUS 2785-2 | High yields of small fruit, similar to Wild Treasure in size. (177) |

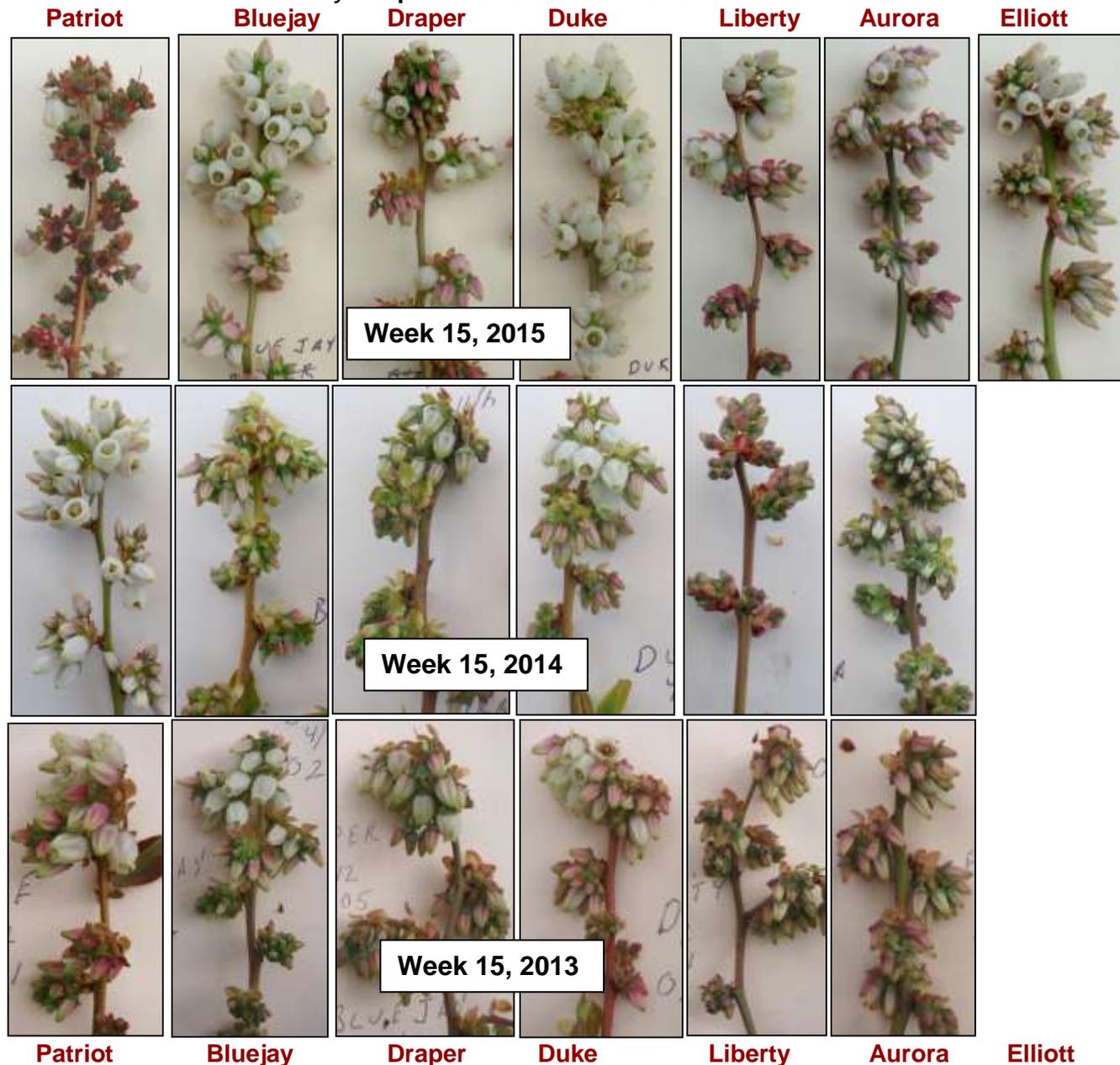
All grower cooperators need to agree to the normal restrictions on the use and distribution of genetic material that's not yet been released as a protected variety.

Blueberry Bud Development Comparison for the Western Willamette Valley

Protocols for these photos: 1) Each Friday I take 5-7 cuttings from the same fields in the NW Willamette Valley. 2) Later in the day I look over the cuttings to and choose what seems the most 'representative' (not the most advanced or the least advanced). I'm aiming for the development stage that best represents the fruit that would be the first harvested.

The last week was cool and off-and-on wet. Development has slowed down some although we continue to be well ahead in development over the last two years.

Northwestern Willamette Valley Top – 4/10/15 Middle – 4/11/14 Bottom – 4/12/13



Industry news/resources

Newsletters/ berry reports

- [BC Blueberry Council IPM Report](#) April 10, 2015
- [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.
- [The Source](#) (4/13) Produce marketing news from Pro*Act.

Magazine/website compilations

- **Growing Produce:** [recent berry articles](#).
- **Fruitnet-Eurofruit:** [recent berry articles](#).
- **Fresh Fruit Portal:** [blueberries](#), [blackberries](#), [raspberries](#), [strawberries](#).

Berry research blogs

- [Strawberries and Caneberries](#) by Mark Bolda, UC Davis Berry Extension Agent. **Recent entry (4/10): Farm Call: Yellow leaves on raspberry in tunnel** Reports on recent insect and disease research and observations in California.
- [Team Rubus](#) by Gina Fernandez, North Carolina State Small Fruit Specialist. **Recent entry (4/10): New blueberry genomics/breeder making his first cross** Reports on issues in blackberries and raspberries from the Southeast.

Climate/Water

- Oregon: [Low Oregon snowpack means many rivers will be low](#) (4/8, Capital Press)
- [Weird spring weather blamed on 'blob' in Pacific Ocean](#) (4/13, Western Farmer-Stockman)
- California: [Drought regulators defend farmers' access to water in drought](#) (4/13, Ag Professional)
- California: [Irrigation districts seize water taken by feds](#) (4/8, Western Farm Press)
- [U.S. forecaster ups El Nino chance to 70% for Northern hemisphere summer](#) (4/10, Ag Professional)

Labor

- [Piece-rate ruling could cost Washington growers millions](#) (4/9, FGN)

Pesticides

- [Fears over glyphosate residues prompt private testing](#) (4/13, Ag Professional)

Pollinators

- [Honeybee die-off less severe this year](#) (4/13, Ag Professional)
- [Paramount Farms looks to wild bees for pollination](#) (3/31, Western Farm Press)

International

Argentina

- [Blueberry a leader among fine fruits](#) (4/13, Fresh Plaza)

China

- [Blueberry company becomes first to hit stock market](#) (4/10, Fresh Fruit Portal)

Mexico

- [Farmworkers were 'forced' to strike, claims BerryMax](#) (4/9, fresh Fruit Portal)

Week 16 Grower Resources

Disease Alerts

- **Time to start scouting for: [Yellow Rust](#) Raspberries –**



Stages of Yellow Rust (from left) spermogonia, aecia, uredinia:

Right now it's mostly in the first stage.

(Middle photo by Carolyn Teasdale, others by Tom Peerbolt)

- Yellow rust is now changing spore stages from black overwintering spores (teliospores) to yellow/orange colored ‘blisters’ (spermogonia) on the top surface of leaves.
- This is followed closely by a very visible, almost day-glow orange/yellow spore stage (aecia).
- The fourth spore stage (uredinia) appears later in the season as yellow ‘dust’ on the bottom of leaves. This last stage is the one that multiplies quickly & can quickly defoliate canes if left untreated.
- Evaluate disease incidence and stage to determine whether (& when) fungicide applications are warranted.
- **Vector management: [Scorch virus](#)** – Areas with confirmed scorch virus present.
 - **Blueberries, Vector (aphid) management**
 - From an April, 2011 B.C. Pest Alert: “Blueberry scorch virus is transmitted by aphids. An effective aphid control program should be used by all growers. *Fields should be treated before bloom with a registered aphicide to control the over-wintering aphids before they reproduce and disperse.*”
 - Click on the blue link above for full information from the B.C. Ministry of Agriculture. Check with your berry management specialists, both public and private, for more specific recommendations and selection of appropriate management materials.
 - You can also email the B.C. Blueberry Council’s research coordinator, [Karina Sakalauskas](#) (or call her at (604) 613-2133) for information.
- **Time to scout for: [Shock virus](#)** – southern blueberries.
 - Symptoms are becoming visible in many fields.
 - This disease is vectored by pollinators.
 - There is no treatment or cure.
 - Infected bushes generally display symptoms for one year and then return to productivity.
- **Time to treat for: [Mummyberry](#) blueberries** Time to be in prevention mode! In fields with a history of mummyberry now’s the time to be implementing your management program and keep it going as consistently as possible all the way through the end of bloom. We’re still in the initial infection stage for this disease.
- **Time to treat for: [Downey Mildew](#) boysenberries, Kotata blackberries (occasionally other blackberries):** This is a systemic disease that only displays symptoms if environmental conditions are right in the spring. It can cause major losses due to misshapen berries. A distinctive red leaf pattern is also diagnostic of the disease. Phosphite applications in the spring are recommended to prevent outbreaks.

Ongoing Pest Information

- **Scout for: [Azalea Bark Scale](#), blueberries.** *This scale's telltale bright white egg sacs on the lower branches of infested plants are becoming more apparent in some southern blueberry fields.*
- **Scout for: Root Weevils, strawberries.** Larvae of [Black Vine](#), [Rough Strawberry](#), [Strawberry Root Weevils](#) are now being recovered from some strawberry fields.
- **Scout for: [Blueberry Gall Midge](#), southern blueberries.** *Tip damage from this midge is due to begin showing up in southern blueberries. Damage is usually deemed to not be economic except in specific situations like new vigorous fields where gall midge can occasionally cause too much stunting of new growth.*
- **Prime Time to Scout for: Mites in raspberries (northern growing areas): [Twospotted mites](#) [Yellow mites](#)** *There are reports of higher than normal early mite populations in northern raspberry fields.*
- **Prime Time to Scout for: [Winter Moth/Bruce Span Worm](#) blueberries**
- **Prime Time to Scout for: [Clay Colored Weevils](#) northern raspberries & blueberries:** *This early emerging species is a pest in northern growing areas where it feeds on newly emerging shoots and buds.*
- **Prime Time to Scout for: [Strawberry Crown Moth](#) southern strawberries:** *As plant growth resumes, plants weakened by SCM can be spotted. Infested plants will have a weakened crown and often will break off with a pull on the top growth.*
- **Time to treat for: [Redberry Mite](#) evergreen blackberries:** *Delayed dormant sprays of lime/sulfur or elemental sulfur for Blackberry Rust and Redberry Mite are recommended ASAP.*

Northwest Berry Nutrient Management Guides

- [Nutrient management in blueberries](#) (OSU)
- [Nutrient management in caneberries](#) (OSU)
- [B.C. interactive berry management guides](#)
- [June bearing strawberries fertilizer guide](#) (OSU)
- [Growing day-neutral strawberries in Western Washington](#) (WSU)

Degree Day Updates

- [WSU Extension—Whatcom County](#)
- [Regional sites—Updated by Len Coop, OSU-IPPC](#) *click on the link, go to right hand column & click on the Degree day icon.*

Crop Work -- Week 16

All crops

- Vole management.
- Weed management.
- Fertilizer program.
- Can put out monitoring traps for Spotted Wing Drosophila.

Blueberries

- Bring in bees around 10% bloom.
- Plan for bloom applications to prevent fruit molds.
- Treat for [Mummyberry](#) as needed. (See Alert at top of newsletter) *You can scout for sprouting mummyberries on the ground but they can be very difficult to find. Base treatments on plant stage, environmental conditions and the past history of the field and surrounding fields.*
- Scout for virus symptoms & send in samples for testing as needed.
- Scout for [leafroller larvae](#) feeding.
- Scout for [Shock virus](#) symptoms in southern area fields.
- Plan for pre-bloom [aphid](#) control where [scorch virus](#) transmission is an issue.
- Scout for [winter moth/Bruce spanworm](#) larvae.
- Scout for scale insects.
- Scout for weevil notching.

Blackberries

- Scout for [Purple Blotch](#) lesions in Marion berries to assess field disease levels for later treatments.
- Can apply lime sulfur for [Redberry Mites](#) and/or disease management.
- Cane burn as needed.

Evergreen Blackberries

- Can still apply a delayed dormant spray of lime/sulfur or elemental sulfur for Redberry mites and Blackberry Rust.

Raspberries

- Burn back primocanes as needed.
- (northern areas) Scout for [Clay Colored Weevil](#) feeding and treat as needed.
- Scout for [twospotted mites](#).
- Scout for virus symptoms & send in samples for testing as needed.
- Can apply a phosphite material for stronger root growth and root rot prevention.
- Scout for Yellow Rust and assess treatment options.
- Scout for spider mites and treat as needed.

Strawberries

- As plants start to grow, watch for weak growing areas and check plants for [weevil larvae](#), [root rot](#) and/or cold damage.
- Can apply fungicide at 10% bloom.
- (Southern strawberries) Can scout for [Strawberry Crown Moth](#) larvae.
- Can apply phosphite materials to strengthen root systems and manage root rot.

Event Calendar

Upcoming Regional Events & Commission Meetings

[Go here for Full Event Calendar](#)

- **April 16 — Washington Blueberry Commission meeting** ~ In Lynden, WA. 10:30 at the Steakhouse 9 Restaurant at the Homestead, 115 East Homestead Blvd. For more information, contact Alan Schreiber by [email](#) or phone 509 266-4305
- **April 21 — Oregon Raspberry and Blackberry Commission meeting** ~ 12 pm, Hayden's Lakefront Grill, 8187 SW Tualatin-Sherwood Road, Tualatin, OR. [Here's the agenda](#).

Oregon State Open House Events

Details to be announced. At the North Willamette Research and Extension Center, Aurora, OR. Contact Bernadine Strik with questions, Bernadine.strik@oregonstate.edu

- **June 10 — OSU Strawberry Open House.** 1-4:30
- **July 1 — OSU Caneberry Open House** 1-5:00
- **July 8 — OSU Blueberry Open House.** 1-5:00

Upcoming National & International Berry Events

- **May 18-19 — National Processed Raspberry Council** ~ Semiahmoo Resort in Blaine, WA. [Go here](#) to make hotel reservations or call phone 360-318-2000. Be sure to identify yourself as part of the National Processed Raspberry Council. For more information, please contact Tom Krugman, 360-354-0948, TKrugman@redraaz.org
- **June 18-24 — Eleventh International Rubus and Ribes Symposium** ~ Charlotte & Asheville, North Carolina. [Go here](#) for their website with all the details.
- **September 7-9 — 5th Annual International Blueberry Organization Summit**~ Coffs Harbor, Australia. [Go here](#) for meeting information.
- **September 13-16 — International Symposium on Mechanical Harvesting & Handling of Fruits and Nuts** ~ Richland, Washington. [Go here](#) for meeting information.

Archived Small Fruit Updates

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

[15-SFU04-07-15](#)

[14-SFU04-01-15](#)

[13-SFU03-24-15](#)