

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 8, 2015

Week 15

Table of Contents

[Regional Reports](#)

[Blueberry Bud Development](#)

[Disease Alert](#)

[Industry News](#)

[Crop Work/ Pest Management](#)

[Events and Meetings](#)

- [Whatcom Farmers Cooperative patrons affirm merger with farmer-owned CHS, Inc.](#) (4/6, PR Newswire)

Related story: [Washington co-op seeks to break out from its corner](#) (4/7, Capital Press)

- [Blueberry farmers fight diabetes in children](#) (4/6, Capital Press)
- [Washington snowpack smallest in 35 years](#) (4/7, Capital Press)

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

Spotted Wing Drosophila --2015



Catch from one SWD trap on blueberry field border. April 7, 2015
Photo by Tom Peerbolt

- **First:** The news that won't surprise anyone—Our first look at SWD monitoring numbers for 2015 confirm that we've got the potential for a very high pressure year.
- **Second:** I haven't gotten all the numbers in yet but we've had some traps well over 100 already. Never expected numbers this high this early!
- For comparison--Average trap counts for the week of 4/1-4/7: **2010:** 0; **2011:** 0.71; **2012:** 0; **2013:** 12.15; **2014:** 0.06.
- **This year we could see problems much earlier and much heavier than ever before.**
- Take all precautions you can and be ready. I hope I'm wrong.

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](#)

Tom Peerbolt, SFU Editor

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)



ORUS 2635-1—one of the selections available for grower trial

Available now:

Selection Number

Brief description & overall number of plants available

- **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.

Regional reports

British Columbia, Fraser Valley (Tuesday, 4/7)

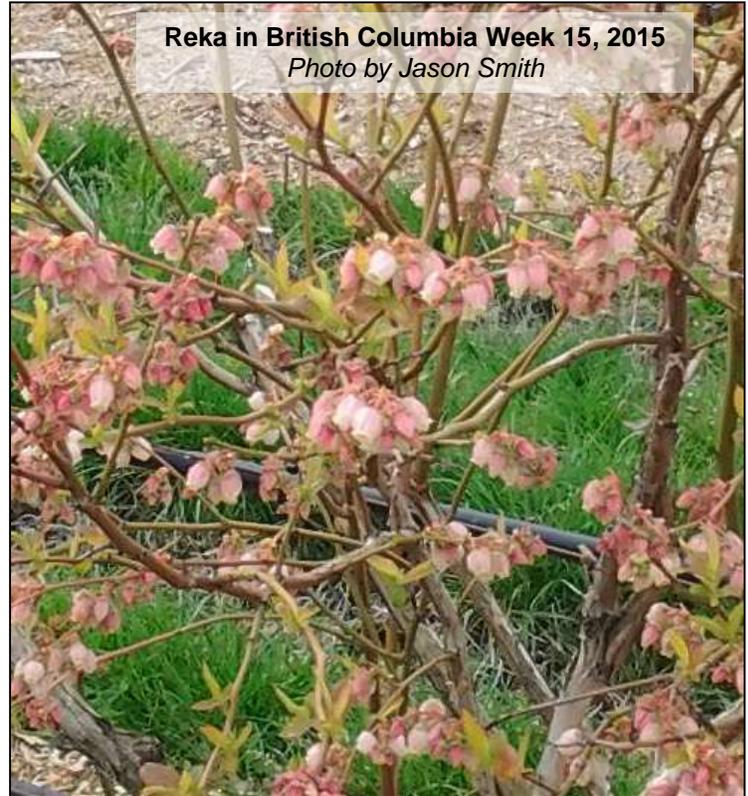
I expect everything is going to jump this week and long term weather, at this point looks good for bloom.

- **Blueberries:** Things are continuing to move along although it slowed down a bit. Expected warm temperatures will make things jump though I expect. Bees have been going into the fields in a hurry. Reka around 15-20% bloom, Duke 5-10%. Bluecrop has some of the weaker areas/fields beginning, Elliott has very little if any open flowers at this point. Fungicides are being applied and where fields are dry enough. There is a flurry of tilling, herbicides and other activities happening.
- **Raspberries/Blackberries:** Raspberries and blackberries have 3-6" lateral growth with fertilizers being applied. Most pre-emerge herbicide has gone on.

British Columbia, Fraser Valley (Tuesday, 4/7)

- **Blueberries:** I'm expecting a lot of bloom to open up this week on Duke and Bluecrop with the promise of warm weather till the weekend. Bees were really active on Easter Sunday and most are in place or should be with the anticipated quick bloom to come. Lots of fertilizer getting placed and first major botrytis spray will probably occur towards the weekend with chance of some wet weather occurring. Seeing some clay coloured weevil activity in established fields and in the baby fields. Not much we can do in the blooming fields. But look to treat the babies before any real damage is done.

- **Raspberries:** Raspberries are moving with Meekers picking up somewhat. Still more winter damage here than I care to see. Hopefully some heat this week will get sluggish buds moving. Fertilizing and treating for weevils ongoing. I'm starting to see some two spotted mite activity as the canopies develop.



Eastern Washington (Tuesday, 4/7)

- **Blueberries:** I estimate that eastern Washington is 10 days ahead of schedule. We have had record warm temperatures recently followed by seasonably cool temperatures that have erased some of our earliness. There have been no reports of frost damage. Bloom has just begun for Dukes

Northern Washington, Whatcom County (Tuesday, 4/7)

- **Blueberries:** Some weevil spraying going on. Bloom is advancing quickly with warm days. Even the bees are getting out.
- **Raspberries:** Damage continues to be very evident. Good thing juice price is looking good. Dry enough most can get field work done. Mowed twice already, where last year, hadn't even started yet.:

Western Oregon, Willamette Valley

- **Blueberries:** (Tuesday, 4/7) Dukes are in petal fall here in the Willamette Valley. Can't believe how this early development just keeps going. Even Elliott and Aurora have open blooms—about 10%. Weather is dry enough that the bees are flying. Some hail damage from last week but that's always hard to factor in as far as actual damage. One 'silver lining' is that the bumble bees seem on the same early cycle as the plants and the winter was easy on them. In fields with good native pollinators there seem to be good numbers. Still a lot of variation in blues as far as bloom.
- **Strawberries:** (Friday, 4/3) Development continues to be very early.



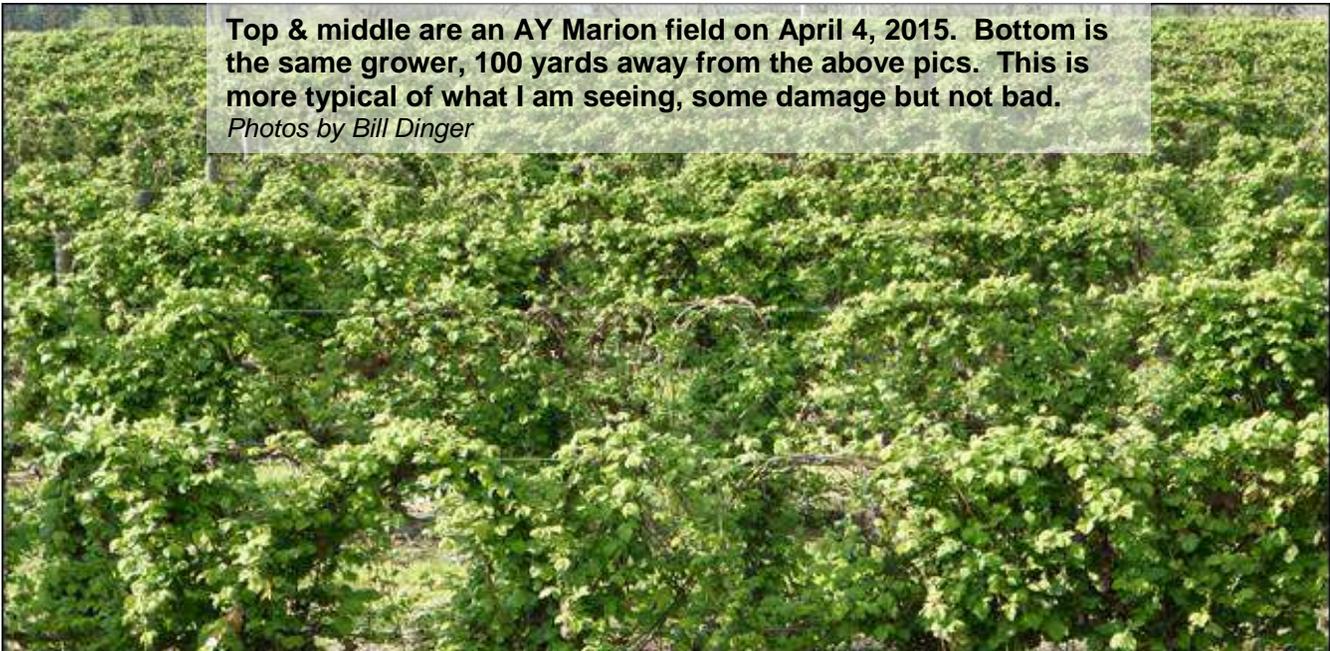
Strawberries, northern Willamette Valley, 4/3/15 Most Advanced Fruit
 Left: First year Hood field. Right: 2nd year Albion field

- **Blackberries:** (Tuesday, 4/7) Marion cold damage is evident at this point. Still need days near 80 F to assess the significance. Some leaf feed being applied as fields look a little yellow. It appears Black Diamond could have some damage also, short fruit spurs and not a very good set, time will tell. No evidence yet of damage in Columbia Star or Kotata. Occasional bloom in Columbia Star and Black Diamond, might be 1% by the end of the week.



Top & middle are an AY Marion field on April 4, 2015. Bottom is the same grower, 100 yards away from the above pics. This is more typical of what I am seeing, some damage but not bad.

Photos by Bill Dinger



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.*

2015 Cold Damage Analysis -- Willamette Valley Blackberries

NWREC = North Willamette Research and Extension Center, Aurora, OR

AY=Alternate year production system where field is harvested alternate years & cut to the ground after harvest.

EY = Every year production system where field is harvested every year & primocanes are trained up after harvest.

From Bernadine Strik, OSU Small Fruit Horticulturist (Tuesday, 4/7)

- We have some damage to blackberry at the NWREC, likely due to temperatures of about 21 F (-6 C) in mid-November.
- Marion grow in AY has no visible damage, whereas Marion grown in EY is showing some damage with reduced percent bud break and emergence of secondary buds/laterals – this are lagging behind some and will produce, smaller, later fruit. The amount of damage isn't really high in these EY Marions in our plots – maybe 20% or so?
- We do have some damage in some other cultivars or advanced selections grow in AY or EY production – none, however, is visible in Black Diamond or Columbia Star at the NWREC.

Why did this occur?

- The coldest we got at the NWREC was in mid-November so I'm quite confident this timing was the cause. These low temperature would have occurred before plants were fully dormant – this stage in autumn, when plants are entering dormancy, is called the "acclimation phase".
- Hardiness increases from the beginning of the acclimation phase to full dormancy (where hardiness is maximum); then hardiness decreases as plants "leave" dormancy in spring prior to bud break (the "deacclimation phase").
- Varieties differ in when they enter and finish the acclimation phase and there is no reliable pattern as to which ones you'd expect to be dormant earlier versus later.
- Also, cultural practices such as irrigation and fertilization can delay or advance the acclimation phase and dormancy (and thus hardiness at a specific point in time).
- The varieties that are showing more damage than we'd expect, based on the temperature and perhaps relative to Marion, may have entered the acclimation phase later and thus have been more susceptible to these cold temperatures than Marion (again...at that specific point in time).

In other words:

- As we've often said in the past, the relative hardiness between cultivars depends on the time of the cold spell and its relationship to the plant's stage of development, the weather preceding the cold spell, and any cultural practices that may affect susceptibility to cold.
- We must now wait and see how much compensation there is in affected plants. Compensation will come from added bud break (we normally get 50% bud break in a healthy Marion so there are "back up" buds) and the breaking of secondary buds (these produce later, smaller fruit).

Disease Alerts

- **Blueberries: Mummyberry** We have open Mummyberry apothecia and fields being vulnerable to infections throughout the region. With prolonged periods of leaf/tissue wetness and temperatures in the

50's we'll be seeing infections. Get a management program in place in fields at risk ASAP. [Mummyberry primer from MSU](#)

- **Blackberries: 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.
- **Raspberries & Blueberries: Phytophthora Root Rot** As soils warm and saturate, conditions are ideal for the spores of Phytophthora to spread from plant to plant. All precautions should be taken to inhibit the disease in fields at risk with soil drenches of Ridomil and doing whatever you can to keep roots out of the saturated soil zone.
- **Raspberries & blackberries: Raspberry Crown Borer** We've seen an upswing in reports of crown borer damage the last couple of years. If you've had issues or it's been a few years since you've treated, now is the time to consider getting an insecticide crown drench on.
- **Raspberries: Yellow Rust**
 - Yellow rust is now changing spore stages yellow/orange colored 'blisters' (spermagonia) on the top surface of leaves to day-glow orange donuts (aecia). This is much earlier than usual.
 - 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.



Rust status in Willamette Valley raspberries 4-4-15
Photo by Rachel Glaeser

Classifieds -- Job offers

If you have job openings or services that we might be able to help get the word out on, let me know (tom@peerbolt.com). This is free.

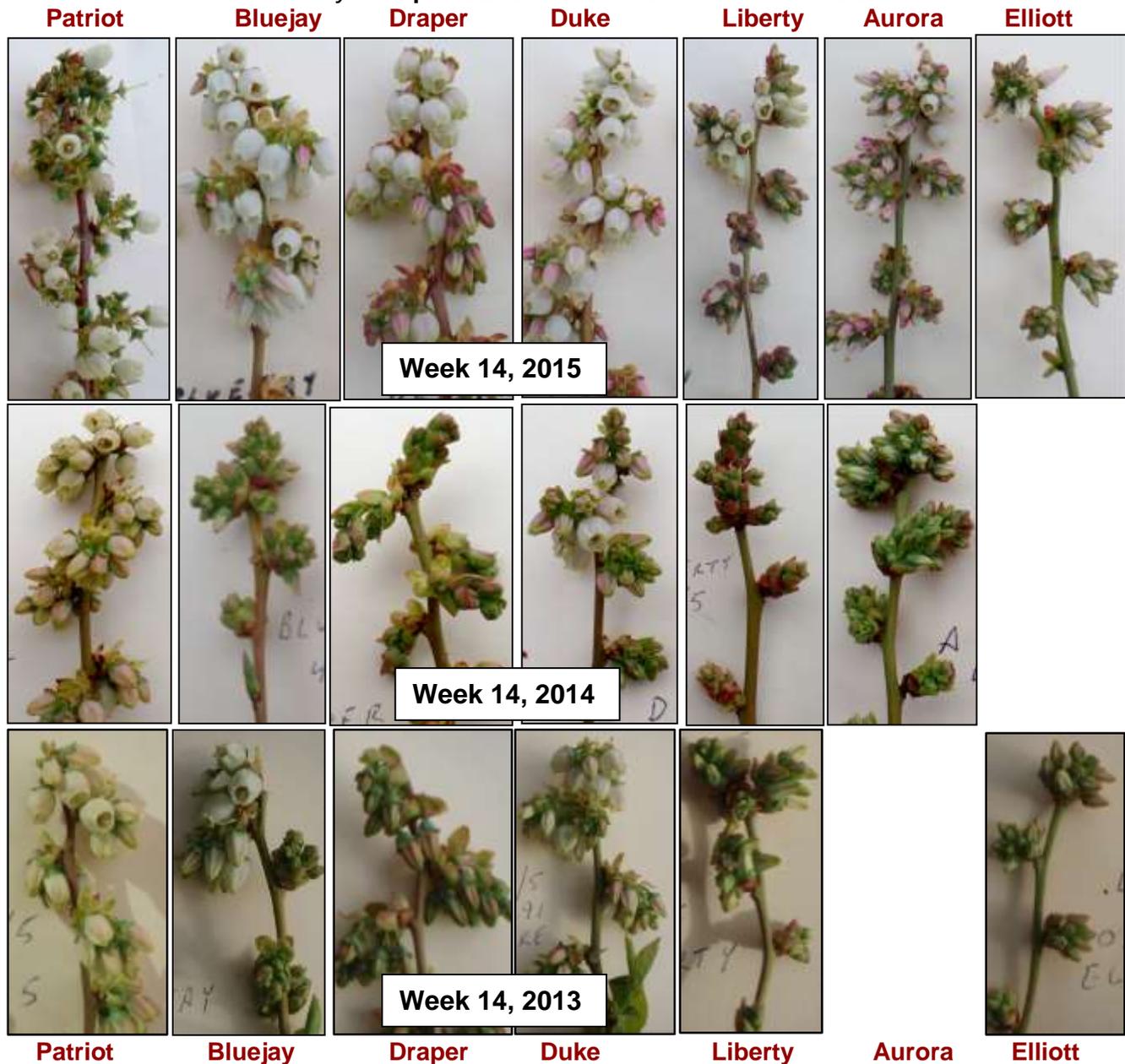
- **Briggs Nursery, Elma, WA is looking for a Container nursery grower.** [Go here](#) for more details and/or contact Janet @ jnelson@briggsnursery.com or 360-482-6190 ext. 106, for a detailed job description.
- **Monte Creek Ranch Winery** in Kamloops, B.C. is looking for 2 Vineyard Foremen. [Go here](#) for more details.

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.

This year continues to be well ahead in development over the last two years. Duke is now into petal fall. We've got some bloom in all cultivars illustrated below.

Northwestern Willamette Valley **Top – 4/3/15** **Middle – 4/4/14** **Bottom – 4/5/13**



Industry news/resources

Newsletters/ berry reports

- [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](#) (4/6) 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 (3/23): A little biography about your author** *Reports on recent insect and disease research and observations in California.*
- [Team Rubus](#) by Gina Fernandez, North Carolina State Small Fruit Specialist. **Recent entry (4/1): Building a better black raspberry** *Reports on issues in blackberries and raspberries from the Southeast.*

Climate/Water

- [Storm brings rain and snow but little relief to California](#) (4/7, Capital Press)

Pesticides

- [Poison expert: Fear obscuring science in herbicide debate](#) (4/7, The Hill)

Labor

- [Union negotiations off the table for Sakuma Brothers Farms](#) (4/3, Fresh Fruit Portal)

The West

- California: [Rain could come at opportune time for strawberries](#) (4/7, Fresh Plaza)

Health Research

International

Chile

- [Dole Chile to expand blueberry production 'north and south'](#) (4/7, Fresh Fruit Portal)

Crop work/pest management activities

Week 15

All crops

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

Blueberries

- [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.*
- [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.*
- Bring in bees!
- Apply fungicides for fruit mold prevention starting at about 10% bloom.
- **Treat for [Mummyberry](#) as needed.** *You can scout for sprouting mummyberries on the ground but they can be very difficult to find. Base treatment decisions on plant stage, environmental conditions and the past mummyberry history of the field and surrounding fields.*
- **Scout for [Pseudomonas \(Bacterial Blight\)](#)** *Water-soaked lesions in some fields that then develop into reddish brown to black cankers or dead buds.*
 - [Click here](#) for a PCM Research Update on bacterial blight first posted on 1/3/13.
- 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.
- [Winter Moth/ Bruce Span Worm](#) **blueberries:** *Scouting for winter moth larvae should start as soon as the buds start swelling. More of an ongoing issue in the northern growing regions but also an occasional, locally severe problem in some Oregon and SW Washington fields.*
- [Scale](#) **blueberries:** *A dormant oil or Esteem (pyriproxyfen) can be used while blueberries are dormant.*

Blackberries

- Burn back primocanes as needed.

- Scout for [Purple Blotch](#) lesions in Marion berries to assess field disease levels for later treatments.
- Can treat to prevent downey mildew.

Raspberries

- Burn back primocanes as needed.
- (northern areas) Scout for [Clay Colored Weevil](#) feeding and treat as needed.
- Scout for cane botrytis lesions.
- Scout for mites.

Strawberries

- Can apply phosphite material.
- (Southern strawberries) Can scout for [Strawberry Crown Moth](#) larvae.
- **Root Weevils, strawberries.** Larvae of [Black Vine](#), [Rough Strawberry](#), [Strawberry Root Weevils](#) are now being recovered from some strawberry fields.
- Watch for weak growing areas and check rots for [weevil larvae](#), [root rot](#) and/or cold damage.



Patriot Blueberries into petal fall, Friday, 3/27/15
Willamette Valley, OR Photo by Tom Peerbolt

Upcoming Regional Events & Commission Meetings

[Go here for Full Event Calendar](#)

- **April 8 — Washington Red Raspberry Commission meeting.** In Puyallup, WA. Contact Henry Bierlink for more information by [email](#) or phone 360-354-8767
- **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
- **New Posting: 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

- **April 9 — British Columbia Blueberry Council 25th Anniversary** ~ The Royal King Palace, Surrey, BC. 5:30. Call the Council's office at 604-864-2117 for tickets. [Go here](#) for information. [Go hear](#) for more details from Modern Agriculture magazine.

- **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@redrazz.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](#).)

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

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

[12-SFU03-17-15](#)