

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.

May 13, 2015

Week 20

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- [Western snowpack melts early, little remains](#) (5/11, *Ag Professional*)
- Washington: [Whatcom County strawberry harvest could be early this year](#) (5/6, *Bellingham Herald*)
- British Columbia: [Get ready for an early blueberry season in B.C.](#) (5/8, *Global News*) 2 minute video

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

Items of note:

- This week has turned cool and wet. So field work has slowed down as has crop development.
- The OSU Strawberry Open House on June 10th agenda is now available. [Go here.](#)
- Strawberry harvest is crawling across the starting line—some fresh market fruit coming out of the fields.
- Haven't heard of any processing pick yet but should be within 7-10 days.
- The weather and uncertain labor situation could slow it down.
- I was thinking that it's almost time to start "the sky is falling" SWD campaign. But then I figured any of you out there who are not aware of the high risks this insect poses probably aren't going to be reading this anyway. If you don't know by now...
- **Don't get surprised. SWD pressure still looks to be earlier and more intense than any previous season -- Know your fields. Know your options. Stay informed.**

Who knows? Maybe the sky won't fall after all.

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

Caneberry New Variety Evaluation Update

New Processing Raspberry Variety: Cascade Harvest

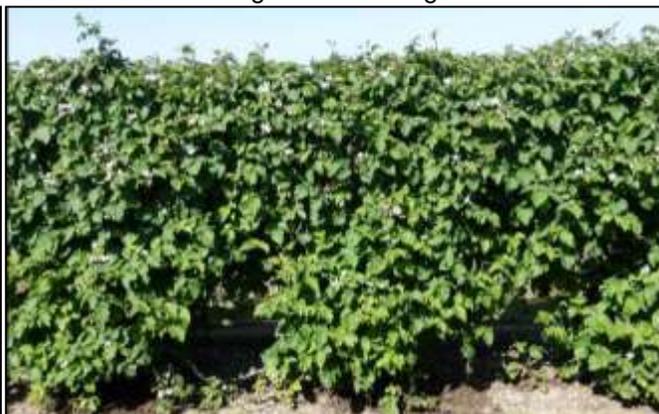
- Below (on left) is our oldest onfarm trial for Cascade Harvest in Oregon. It was planted in 2012.
- Right across from it is (was) a planting of Tulameen put in at the same time. Other varieties were also planted here and have shown varying degrees of loss to Phytophthora root rot.
- Cascade Harvest has so far demonstrated resistance to the disease on this, as well as other, sites.
- So far machine harvestability, fruit quality and overall yields have looked excellent.
- This harvest season we'll be getting much larger quantities of fruit from this trial, along with other, larger, onfarm evaluation sites, to be able to better evaluate the variety's potential as a major processing raspberry with much improved root rot resistance.



New Processing Blackberry Variety: Columbia Star

- Quite a few acres of Columbia Star have gone into the ground this last season but only a few large onfarm trials (planted in 2013) will be of producing reasonable quantities fruit in 2015.
- It is thornless, machine harvestable and produces very high quality fruit.
- This year we're looking closer at overall yields (so far very promising) as well as trainability and disease resistance.
- This past winter gave it a great test for cold hardiness and it came through showing no symptoms of cold damage on any of the sites even when planted right alongside Marions that did show significant damage.

Far Right:
Columbia Star
field in the
Willamette
Valley (5/8/15)
**Immediate
Right:**
Columbia Star
fruit example
from 2014 trial



Regional reports

British Columbia, Fraser Valley (Monday, 5/11)

[Go here](#) for the British Columbia Blueberry Council's IPM Newsletter for 5/8.

- **Blueberries:** Bloom starting to wind down now with little left on Duke, Bluecrop. Draper held off for a long time and went through the bloom period very quickly, with remnants to finish off this week. Elliotts still have a week or so left. But as has been said all along, there is still a good deal of variation in the stage of development from farm to farm. Fruit is sizing very quickly. An indication of good pollination which seems to be generally the case. I don't think I've ever seen the bees as active as they have been the last 5-6 days. A lot was accomplished in this last week of bloom. Once again saw the arrival of the **Green Immigrant Leaf Weevil** on a couple of Abbotsford farms. This is about 3-4 weeks earlier than we saw them last year. Very localized find. I don't see it as a widespread issue yet, fortunately. But the numbers in these affected fields are significant. They can fly (which is kind of a worst case scenario for a weevil) so spread capability could be an issue. Aphid numbers on the increase so controls need to be considered immediately post bloom. It's getting quite dry so irrigation has started.



Green Immigrant Weevil on blueberry leaf Photo by Tom Peerbolt

- **Raspberries:** Raspberries are getting first floral fungicides in Rudi variety. Meekers are not quite there yet. Doing some pre-bloom spraying for fruitworm (raspberry beetle).

British Columbia, Fraser Valley (Tuesday, 5/12)

- **Blueberries:** The bloom period for Duke, Reka, Bluecrop, Hardiblu is pretty much wrapped up. Elliot still has a week or so left. The bloom period was quite spread out with a lot of variability between varieties in the same area. Bees had one of their best seasons ever. Growers who have gotten the bees out are beginning treat for leafrollers and aphids. Fungicides being applied at regular intervals. Fertilizing through drip has begun. Some wet weather is expected for a couple days beginning tonight. Then couple days of sun and back to wet weather with temperatures remaining fairly warm. Expected highs of 30+C early next week.

Northern Washington, Whatcom County (Tuesday, 5/12)

I've heard many comments about the early strawberry harvest is likely going to cause some issues with getting labor...

- **Blueberries:** The bloom is winding down in most fields. It's going to be an interesting harvest. Hail damage less than expected in most areas in Whatcom. Shocked to find SWD's in blueberry already. As mentioned by others, aphids showing in some fields. Warm weather has really pushed berries along and fields, in general, look better.
- **Raspberries:** Raspberries are starting to come on, and bloom sprays starting.

Eastern Washington

- **Blueberries:** (Monday, 5/11) Bees pulled out of fields here, pretty good pollination but looks like a freckle of frost damage. Cleanup sprays to go on soon for spiders, larvae, aphids, lygus, etc. Good idea to mow weeds, grass between rows before cleanup as they can be reservoirs for insects. Good time to hand weed hills to keep weeds out of harvested fruit.

Eastern Washington

- **Blueberries:** (Monday, 5/11) Conditions for blueberry production in eastern Washington has been close to ideal. No pests, warm weather that is not too warm. Berries are sizing up nicely.

Western Oregon, Willamette Valley

- **Blueberries:** (Monday, 5/11) The blueberry bloom is coming to an abrupt end in the Willamette Valley. It's just about finished even in most Aurora and Elliott fields I'm looking at. Some of both of those as well as some Liberty still have some bloom.

Conditions have been right to bring back a fair amount of that 'secondary shock' symptom in many blues that we haven't seen much the last few years. Probably not economic but there'll be bushes that are in green fruit stage and have had shock previously that have the vegetative laterals collapse. Looks at first like a very bad case of mummyberry hits. Seeing it very sporadically in many fields and many cultivars.

- **Strawberries**

[Go here](#) for the Oregon Strawberry Commission's Fresh Strawberry Market Bulletin for 5/12/15.

- **Day neutral:** (Monday, 5/11) Albions are harvesting. Some great fruit especially in first year fields. Might be some problems with fruit sizing in older fields. The cooler, wetter weather is heightening the risk of slug and fruit rot damage. Stay on top of managing them!
- **June bearing:** (Monday, 5/11) Some Hoods are ripe already. There'll certainly be fields harvesting within a week. Same issues as with the day neutrals—slugs and fruit rots along with spittle bugs and aphids are all increasing. Good to get ripening fruit out of the fields but at the same time they aren't ripening very fast and it'd be good to leave them to develop more sugar. And then there's the labor thing.



From left: 1st yr Hoods; 2nd yr Albions; 1st yr Albions ~ Friday, 5/8/15

- **Blackberries:** (Tuesday, 5/12) Rain last night and today has put a damper on field activities, don't think it is hurting anything, needed the moisture. Wet enough now that it will keep people out of the fields for the next couple of days. First ties being done on AY blackberries, new plantings going in and fungicides being applied, all before the rain. Bloom continues to progress nicely, bees getting the job done, pollination looks good. Bloom varies a lot from field to field but remains ahead of schedule, best guess right now is for a June 22 start on Marions with Black Diamonds about a week ahead of that.

See Bill Dinger's pictures on the next page.

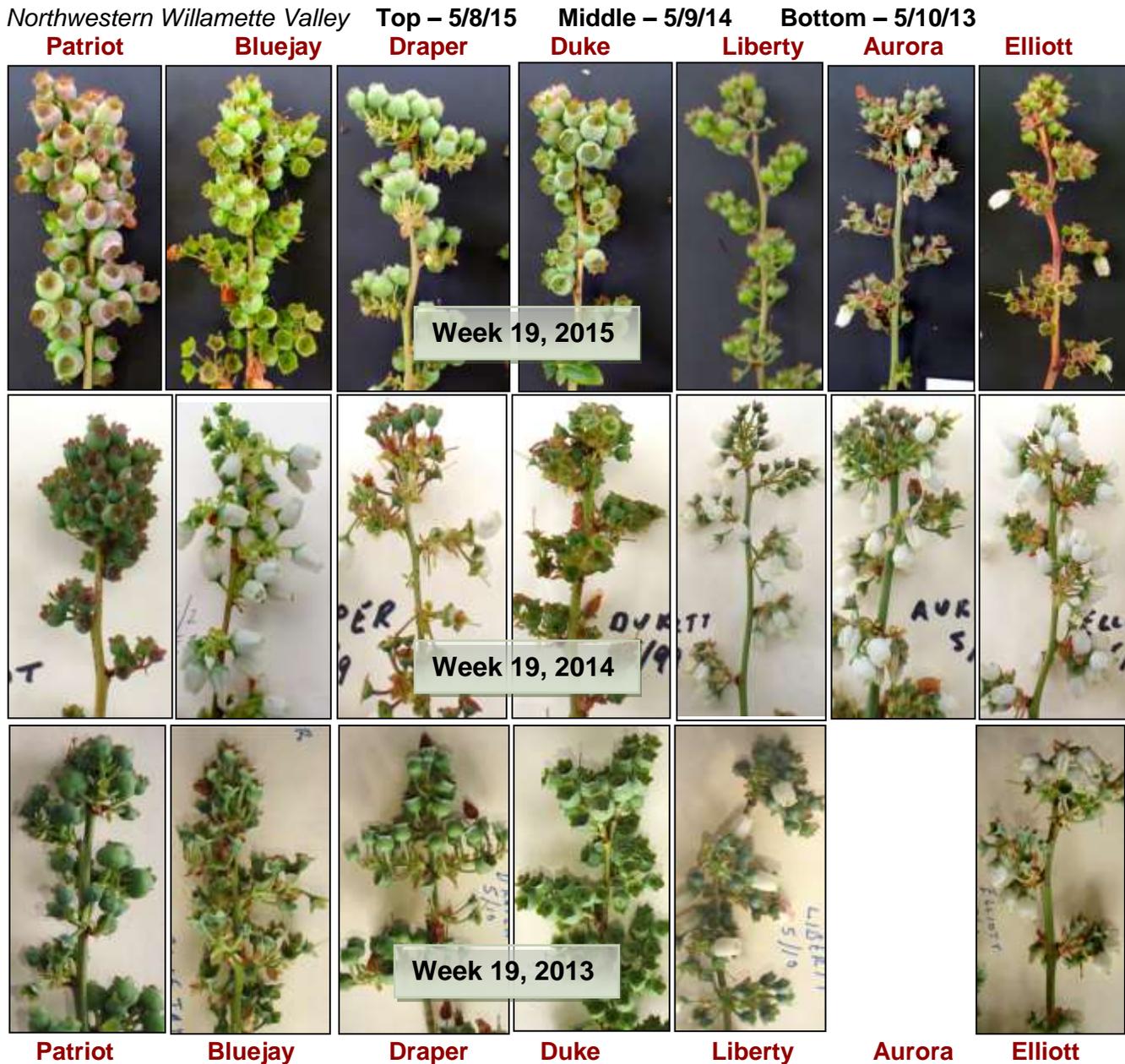


Columbia Star, top
Marion, bottom.
5/8/15
Photos by Bill Dinger



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 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. **We continue to be ahead in development over the last two years although that difference has moderated with the cooler weather.**



Industry news/resources

Newsletters/ berry reports

- [National Processed Raspberry Council Newsletter](#) (Spring, 2015)
- [NW Center for Small Fruits Research News](#) (5/11)
- [BC Blueberry Council IPM Report](#) (5/8)
- [Oregon Strawberry Commission's Fresh Market Strawberry Bulletin](#) (5/12)
- [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](#) (5/11) Produce marketing news from Pro*Act.

Magazine/website compilations

- The Packer: [blueberries](#), [blackberries](#), [raspberries](#), [strawberries](#).
- **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 *Reports on recent insect and disease research and observations in California.*
- [Team Rubus](#) by Gina Fernandez, North Carolina State Small Fruit Specialist *Reports on issues in blackberries and raspberries from the Southeast.*

Climate/Water

- [Snow packs melt early across western state region](#) (5/8, Western Farmer-Stockman)
- [California farmers in line for more drought cutbacks](#) (5/11, Sacramento Bee)
- [California regulators approve unprecedented water cutbacks](#) (5/6, Capital Press)
- Washington: [Yakima basin farmers may soon get access to drought wells](#) (5/8, Capital Press)
- Washington: [Record low streamflows forecast for parts of Washington](#) (5/7, Capital Press)

Pesticides

- [EPA says set to release key herbicide report, lauds biopesticides](#) (5/11, Ag Professional)

Research/Breeding

- [Driscoll's glasshouse blackberries impress berry market](#) (5/11, Fresh Plaza)
- New Jersey: [Better tasting strawberry developed at Rutgers makes its debut](#) (5/11, Rutgers Today)

Business

- [Monsanto set to press ahead with Syngenta takeover plan](#) (5/8, Reuters)
- [Monsanto, in bid for Syngenta, reaches for a business it left behind](#) (5/8, New York Times)
- [Inventure CEO: Company will rebound from Listeria recall 'low point'](#) (5/7, Phoenix Business Journal)

Marketing

- Chile: [Interactive campaign for blueberries from Chile](#) (5/11, Fresh Plaza)
- [Foodservice use of berries still trending up](#) (5/7, The Packer)
- [Naturipe's Director of Marketing Kyla Oberman talks blueberries and the 1 pound clamshell](#) (4/22, Andnowyouknow.com)
- [Packaging follows berry growth trend](#) (5/7, The Packer)
- [Berries marketing business updates](#) (5/7, The Packer)
- [Organic berry demand grows faster than available land](#) (5/7, The Packer)

The West

- Washington: [Whatcom County strawberry harvest could be early this year](#) (5/6, Bellingham Herald)
- British Columbia: [Get ready for an early blueberry season in B.C.](#) (5/8, Global News) *2 minute video*
- California: [Berry crops weather drought again](#) (5/7, The Packer)

North America

- Florida: [Labor shortage brings early end to Florida blueberry harvest](#) (5/7, The Packer)

International

Chile

- [Chilean blueberry export values overcome dramatic price falls](#) (5/8, Fresh Fruit Portal)
- [Blueberry exports up 22%](#) (5/11, Fresh Plaza)

Peru

- [Completejo Agroindustrial Beta announces \\$80 million planting plan](#) (5/5, Fresh Fruit Portal)

China

- [Chinese economy enters age with 'super consumers'](#) (5/7, China Daily)

Week 20 Grower Resources

- [Researchers study biological controls for stinkbugs, other pests](#) (5/6, Capital Press)
- [Explaining the need to calibrate air blast sprayers](#) (5 minute video, Fruit Grower News TV)
- [Researchers find silver lining in Phytophthora fight](#) (5/5, Growing Produce)

Scouting Field Notes

Some informal notes of what we've been seeing & doing in the fields this week. All of this applies only to fields we're seeing. Don't expect it to be representative of what's happening in any other field.

Spotted Wing Drosophila

- **From Amy Dreves (OSU)** (Wednesday, 5/6): "Spotted Wing Drosophila larvae have been found in Haskap (*Lonicera caerulea*) berries in Portland area, May 6th. The fly is indeed laying! ...We are 12 days ahead of 2014 according to model."
- Numbers remain very high in our adult traps.
- So far no larvae have been recovered from the strawberry fruit samples we've done.

Blueberries

- Bloom basically finished although a little left in some Aurora and Elliott fields.
- Main symptom has been the 'secondary shock' collapse. It only seems to show up in years where the right combination of early warmth brings out a lot of growth and then cooler, milder weather comes on. Ad us wondering if we had a monster mummyberry outbreak for a while (it looks like a lot of the laterals on a branch have mummyberry flags).
- Soil moisture levels have been declining. Most fields have had irrigation going.
- Scale, gall midge, aphids, shock virus, some botrytis blighted bloom...all present and accounted for.

Strawberries

- Slugs are doing the main damage to coloring fruit seen this week.
- Where not treated, spittle bug numbers are up. This is ideal weather conditions for them.
- Bloom is finishing up in quite a few June bearer fields.
- So far no SWD larvae in the baggie tests we've been doing.
- Aphids...also perfect conditions for them.

Pest Alerts

Blueberry Ripe Fruit Diseases—Time now to prevent

Time for preventative fungicide applications: **Alternaria Fruit Rot**

As blueberry bloom starts to finish, it's time to consider whether you need to prevent Alternaria and Anthracnose problems from showing up in the fruit. Alternaria can infect the fruit beginning at the end of bloom and throughout the fruit development stage, up until harvest. Infections remain latent until the fruit ripens. Infected fruits exhibit a shriveling or caving-in of the side of the berry and become watery in storage.



Photos by Caroline Teasdale

Time for preventative fungicide applications: [Anthracnose Ripe Rot](#)

If you've had problems with Anthracnose, prevention of a reoccurrence begins at petal fall. Symptoms: First, blighting of shoot tips; then, a few flowers turn brown or black. Leaf spots, when they occur, are large or small and roughly circular. As infected berries ripen, the flower end may soften and pucker. Under warm and rainy conditions, salmon-colored spore masses form on infected berries. After harvest, spore masses form rapidly on infected fruit when in cellophane-covered baskets or in plastic clamshell packs.



Photos by Caroline Teasdale

Time to scout for & treat if needed: [Yellow Rust Raspberries](#)



Stages of Yellow Rust (from left) spermagonia, aecia, uredinia: It has not yet reached the uredinia stage.
(Middle photo by Carolyn Teasdale, others by Tom Peerbolt)

- Yellow rust is now moving through its spore stages from yellow/orange colored 'blisters' (spermagonia) on the top surface of leaves to a very visible, almost day-glow orange/yellow spore stage (aecia) and, in southern regional fields, the fourth spore stage (uredinia).
- This 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.

Time to Scout for: [Scorch virus](#) Blueberries

- Symptoms are becoming visible.
- This disease is vectored aphids.
- *There is no treatment or cure. Infected bushes never return to productivity & should be removed ASAP.*
- **The BC Blueberry Council is accepting samples for the free Scorch & Shock testing program.** For more information call Karina Sakalauskas, Research Coordinator for the BC Blueberry Council (604) 613 2133 or [click here](#) to email her.

Time to scout for: [Shock virus](#) Blueberries.

- Symptoms are visible in many area 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 scout for and evaluate if management action is needed:

[Powdery Mildew](#) southern strawberries.

- Dry, warm, humid conditions favor powdery mildew in strawberries. (Photos by Tom Peerbolt).



Time to scout for and prevent: [Mummyberry](#), blueberries.

Fields at risk should have a protective fungicide on the susceptible tissue at this time to minimize infections.

- [Managing mummy berry shoot strike infections](#) (MSU Extension, 5/3/13) Great charts on effectiveness of fungicide choices and on weather variables that favor infections.
- [Mummyberry primer from MSU](#).

Time to scout for and evaluate if management action is needed: [Yellow mites](#), raspberries

- This early season mite is smaller and paler than two-spotted mite and has less webbing.

Time to scout for and evaluate if management action is needed: [Blackberry Rust](#) (*Phragmidium Rust*) Evergreen blackberries

- This disease is of economic threat to only to Evergreen blackberries where it can be devastating. *There are reports of it being present in fields at this time.* Treatment is recommended. Rally (myclobutanil) is particularly effective.

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 now apparent in some southern blueberry fields.
- **Scout for:** [Raspberry Beetle](#), northern raspberries. This small beetle can cause fruit damage and be a major contaminant in northern raspberry fields.
- **Scout for:** **Root Weevils**, strawberries. Larvae & adults 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 showing up in 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](#)

- **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.

Crop Work

All crops

- Vole management.
- Weed management.
- Fertilizer program.
- Can put out monitoring traps for spotted wing drosophila.

Blueberries

- Apply bloom applications to prevent fruit molds.
- Treat for [Mummyberry](#) as needed. (See Alert at top of newsletter)
- Scout for virus symptoms & send in samples for testing as needed.
- Scout for [leafroller larvae](#) feeding.
- Scout for virus symptoms & 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.
- Scout for [azalea bark scale](#) in southern blueberries
- Scout for [blueberry gall midge](#) damage.
- Can apply fungicides for fruit/blossom rot from 10% bloom through the end of bloom.
- After petal fall, can treat for [alternaria](#) and [anthracnose](#) prevention if needed.

Blackberries

- Bring in bees around 10% bloom.
- Apply bloom applications to prevent fruit molds.
- Scout for virus symptoms & send in samples for testing as needed.

Evergreen Blackberries

- Scout for and treat as needed for [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.
- Bring in bees around 10% bloom.
- Can apply fungicides for fruit/blossom rot from 10% bloom through the end of bloom.

Strawberries

- (Southern strawberries) Can scout for [strawberry crown moth larvae](#).
- Scout for weevil notching.
- Can apply fungicides starting at 10% bloom to prevent fruit mold
- Scout for weevil adults and notching.
- Can apply slug bait.

- Scout for [powdery mildew](#) and treat as needed.
- Scout for [two spotted spider mites](#) and predatory, beneficial mites.
- Scout for [aphids](#).

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.*

Events

Upcoming Regional Events & Commission Meetings

[Go here for Full Event Calendar](#)

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@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.
- **New Posting: October 13-15 — 6th Biennial Berry Health Benefits Symposium** ~Madison, Wisconsin. [Go here](#) for all the details.

Archived Small Fruit Updates

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

[19-SFU05-6-15](#)

[18-SFU04-29-15](#)

[17-SFU04-22-15](#)