

# 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.

June 24, 2015

Week 26

## Table of Contents

[Regional Reports](#)

[Berry Day Events](#)

[Blueberry Bud Development](#)

[Industry News](#)

[Grower Resources](#)

[Pest Alerts](#)

[Crop Work](#)

- Washington: [Demand high for record blueberry crop](#) (6/19, Capital Press)
- [Oppy kicks off B.C. blueberry deal early](#) (6/23, The Packer)
- [SWD pressure mounts in Willamette Valley](#) (6/22, Capital Press)

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

Random field comments from our field reports this past week—Gives a feel for our world at this time of year. A little of everything...

- **Blueberries:** Scout report on older blueberry field (6/20): "Minor shock symptoms, gall midge feeding, low level mummyberry, green berry fruit rot, minor bird feeding, voles. Habitat nearby includes riparian vegetation: poplar, willow, blackberry (flowering now and some small green fruit), nettle, oxeye daisy; a few hypochaeris and clover between rows."
- **June bearing strawberries:** (6/19) 2nd year field: Post harvest. SWD adult trap: 30 Male, 6 Female. Fruit sample: 9 larvae in 50 fruit. Comments: "SWD traps removed. Overripe fruits with old sunburn throughout. Covered in film of dust. No unusual fruit rot found. Very uninteresting."
- **Blueberries:** Scout note (6/20): "U-pickers running amuck in the field, unsupervised children everywhere... EVERYWHERE!!!"

## 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](#)

A lot of fruit coming in right now. It'll be a long, hot week & weekend for people in the fields, on the machines and in the packing/processing lines. Time to get the crops in. Tom Peerbolt, SFU Editor

For the SWD report and other crop management information go to the [Grower Resources](#) section.

## Regional Berry Field Day Events

- July 1 — OSU Caneberry Open House 1-5:00 [Go here](#) for details
- July 7 — B.C. Berry Field Day at the Clearbrook Station, Abbotsford, B.C. 1-3, Details TBA
- July 8 — Washington Raspberry Machine Harvesting Field Day, 2-4, Lynden, WA at Randy Honcoop's Farm. [Go here](#) for details.
- July 8 — OSU Blueberry Open House 1-5:00 [Go here](#) for details
- August 18 — Oregon Strawberry Commission Fresh Strawberry Plasticulture Workshop and Demonstration 9:30-5:00 [Go here for the agenda](#).



Processing blackberry fruit comparisons 6/17/15 Near Hillsboro. OR.  
From Left: Columbia Star; Black Diamond, ORUS 2707-1

## Regional reports

### British Columbia, Fraser Valley (Monday, 6/22)

[Go here](#) for the B.C. Blueberry Council's Blueberry IPM Report for 6/19.

- **Blueberries:** Fresh picking levels of Dukes well on this past week. Size and corresponding fruit weight is an issue as the fruit is ripening too quickly in this on-going dry and hot weather. We've had an almost unrelenting arid wind blowing all week that makes spraying difficult and impacts plant development as well. Concern is now with the oncoming projected really hot weather towards the end of this week. Some machine harvest of Dukes will get under way later in the week on the early eastern valley fields. More to come the 29th to July 1st.

**Raspberries:** Machine picking of Chemainus, Meeker raspberries got underway this past week as well with more to start today and tomorrow. Berries are not large and hot weather in the offing could really impact the pick. The moisture we should have received last Thursday really amounted to nothing, unfortunately. It would have been the proverbial million dollar rain. It is incredibly dry with little prospect for change.

### British Columbia, Fraser Valley (Sunday, 6/21)

From [Tom Baumann](#), Director of the Pacific Berry Resource Centre & UFV's Ag Dept. Coordinator:

- **All crops:** Heat, dry, dusty. That's the story. Forecast is for body temperature equaling heat-37C (99F) by Sunday, not good at all. All dark (red or blue) fruit will be hurt. Be as proactive on harvesting as is possible. Prepare the soil by keeping it moist so plants can take the load of fruit as well. Be prepared for quality loss and divert to other uses. And pray for this forecast to change to lower temps by the time we get there.
- **Blueberries:** Rapid ripening may give us a chance to get good quality Duke and Reka in prior to the heat. Eastern Fraser Valley we can go second time already end of week.

- **Raspberries:** Everyone is getting ready for machining this week. Some white shoulders appearing, must harvest really early, nice and crisp up to about ten AM. By two PM juice starts running.
- **Cranberry:** When the heat starts, consider cooling, heat damage possible, especially on organic dark soils where temps can go well beyond 40C (104F) in the afternoon.
- **Strawberries:** Nearly done. Dayneutral varieties will stop initiating blooms come > 28C temperatures, so expect a lull of production in about 5 weeks. Also, do not neglect fields for water and fertilizer if you wish to have a crop in 2016.
- **Misc Fruit:** *Elderberry* fruit sizing nicely, first ripe fruit in three weeks. *Black and red currants*, as well as *Jostaberry* ripe. *Saskatoons* ripe and harvested by the birds...., even more attractive than blueberries. *Goji* now producing steady, colouration spectacular. *Blue Honeysuckle (Haskaps)* now making second growth spurt, I wonder whether they will bloom again and bear fruit come August? *Early blackberries* in full ripeness now, ready to be picked for the first time this week. Great size and flavour, sunshine seems to favour them.

### British Columbia, Fraser Valley (Tuesday, 6/23)

*Weather has been hot and dry. Rainfall we had did nothing but keep dust down for a couple of hours.*

#### Blueberries:

- **Dukes:** Hand harvest Dukes happening in all areas. Some growers in Eastern valley tried machine yesterday on Duke. I tried machine today on Duke. Will be rolling through beginning Friday. Some variability in sizes of Duke from field to field. Some fields good, some have small fruit. Lack of rain and heat contributors.
- **Reka:** Usually done second pick Duke by machine and follow Reka right after. This year first pick Reka looking like it will be coming off within couple days of finishing off first pick Duke.
- **Bluecrop:** Bluecrop ripening and sizing nicely. Some fields may start harvest early next week with majority started by the beginning of following week.
- **Elliott:** Sizing nicely. Haven't seen any color yet which is a berry good thing.
- **General comments:** Quality is excellent at this point.
  - **Weather:** Predicting 33-34 C (~92 F) over weekend but will see if it actually happens. Hoping for bit of a wind at least if it gets that hot. Have heard possibility of 37 C (98.6 F) which may not be a good thing for some growers.
  - **Water:** Huge demands on water supplies with some growers struggling to keep soils moist enough.
  - **Labour:** Heard some comments about labour supply at this point because season so early. Should improve by end of week though

### Northern Washington, Whatcom County

- **Raspberries:** (Monday, 6/21) Some machine harvesting is in progress on Rudi and Cascade Bounty fields. A lot of machines all lined up and ready to go on other varieties. Cascade Harvest timing is early—the onfarm trial plants were being harvested for the first time today. Wakefield is still a ways off, just coloring now with very few ripe berries. Drip irrigated fields look to have quite an advantage going into this heat. Lots of irrigation now in progress. Very low mold pressure this year so far. Not great outlook right now for older/weaker fields—fruit isn't sizing well, many fields look stressed already and now we're heading into a very hot weekend.

### Eastern Washington (Monday, 6/21)

- **Blueberries:** Warm and dry over here. Cooked fruit from June 8 dried up just in time for this coming weekend. Forecast is for 104-111 Friday thru Wednesday. I'll be supporting the hops and barley growers big time. Picking Dukes going on all over. I thought they would all come off with one pass but we'll have to hit them 2-3 times. Still a bit of shrivel to sort out. Swd sprays going on every 5-7 days. Growers who have shade cloth and/or overhead irrigation are patting themselves on the back.

### Western Oregon, Willamette Valley

- **Blueberries:** (Sunday, 6/21) Will start some process Earliblue Tuesday (6/23). Tough choice on the Dukes-- pick early before the heat? Don't know, staying out of that decision as much as possible.
- **Blueberries:** (Monday, 6/22) Duke, Draper, Bluegold are hand picking. Bluecrop, Earliblue, Blueray...all machine harvesting...trying to get some fruit in before the weekend heat. Labor is tight.

## Western Oregon, Willamette Valley

- **Blackberries:** (Sunday, 6/21) Last Black Diamond field will start tonight (6/21), first one started last Wednesday (6/17) night. Columbia Star started same night as Black Diamond. Start Kotata tonight. We will start Marions Monday (6/22) night, really get going by mid-week. All about two weeks ahead of "normal". Marions look a little small to me but will know once we get them off the bush and get a berry count. Everyone concerned about the heat forecast, will be starting some fields before their time just to get off the ripest fruit. Don't know what else to do (besides hope for a wrong forecast). SWD sprays ongoing, so far have found 0. There are enough horror stories out there to keep everyone on their toes.



**Top:** AY Marions, near Gervais June 21, Harvest Monday night, June 22.

**Bottom left:** AY Boysen, near Gervais, June 21.

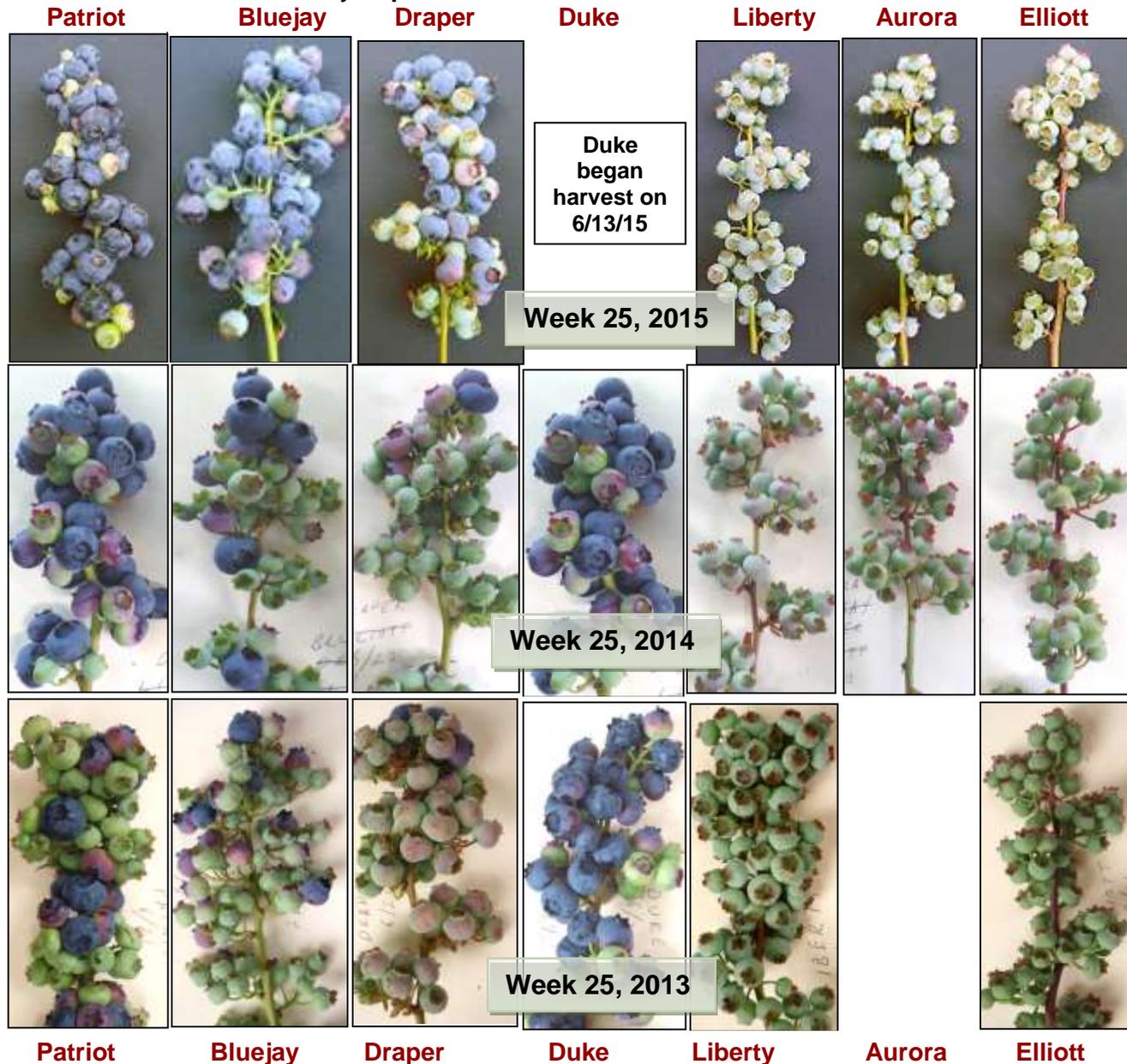
**Bottom right:** EY Black Diamond, near Gervais, June 21. Hard to see the fruit- covered up by next year canes. – pictures by Bill Dinger.



## 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 ahead in development over the last two years.**

Northwestern Willamette Valley Top – 6/19/15    Middle – 6/20/14    Bottom – 6/21/13



## 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.
- [Market Report from General Produce for Week 25](#) (6/22)
- [The Source](#) from Pro\*Act (6/22)
- [USDA Market News \(Fruits & Vegetables\)](#)

## 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. **Recent entry: (6/23)**  
**Government seizure of agricultural produce ruled unconstitutional** *Reports on recent insect and disease research and observations in California.*
- [Team Rubus](#) by Gina Fernandez, North Carolina State Small Fruit Specialist. . **Recent entry: (6/15)**  
**World's blackberry, raspberry, currant and gooseberry experts coming to North Carolina** *Reports on issues in blackberries and raspberries from the Southeast.*

## Climate/Water

- [Washington on brink of federal drought declaration](#) (6/22, Capital Press)
- [What's to blame for California's drought? Basically everything](#) (6/18, Capital Press)

## Business/Marketing

- [Blackberry marketers want to copy blueberries](#) (6/18, The Packer)

## Labor

- [Blueberry farm workers file lawsuit for unpaid wages](#) (6/19, Capital Press)

## Plant Breeding

- [Driscoll's expands organic nursery plant program](#) (6/22, The Packer)

## Health Research

- [Studies show berry health benefits](#) (6/17, The Packer)

## West

- [California strawberry crop Update](#) (6/18, The Packer)
- Washington: [Small farm does well with blueberries](#) (6/19, Capital Press)

## North America

- [California blueberry Crop Updates](#) (6/19, The Packer)
- [Blueberry volume likely to increase](#) (6/18, The Packer)

## International

- Mexico: [Strawberry pickers strain to see fruits of their labor even after strike](#) (6/21, Aljazeera)
- [Georgian blueberries hit UK supermarket shelves](#) (6/22, Agenda.ge)
- Italy: [Lack of raspberries keeps prices high](#) (6/17, Fresh Plaza)



Cascade Harvest raspberries, Lynden, WA. 6/22/15 – picture by T. Peerbolt

# Grower Resources

## SWD report for week 26, 2015

From 2010-214 we did regional SWD monitoring and reporting funded by USDA and ODA grants. We no longer have that funding, but given the severity of the risk SWD poses to northwest berry crops in 2015—it's higher than any previous year—I figured I'd better continue that practice of weekly reports. I just won't have the public monitoring information to include. – Tom Peerbolt, editor.

### Willamette Valley SWD monitoring

This information is based on PCM's client scouting and monitoring services. For proprietary reasons, some regional specifics, trap locations, crop type, etc. are not included.

#### Comments

- **2015 SWD development so far:** We came out of a very mild winter with more SWD adults able to survive than ever before. We've followed that with mild late winter/spring weather that has been ideal for SWD adults to survive until new fruit hosts were available.
- 2015 has a much greater risk potential than previous years. First picks of blackberries, raspberries and blueberries are likely to see infestations. This will vary by region and field risk factors.

#### Take home messages

- **SWD Population Status:** The SWD breeding population right now is, for this point in the season, **at highest levels we've ever recorded in the Willamette Valley.**
- **Environmental Factors:** Moderate temperatures (in the 70s F/20-26 C) favor SWD breeding. Hot temperatures (over 85F) suppresses SWD breeding.
- **Damage Risk Assessment: Very high.**
- Immediate risk to harvesting and ripening berry crops. Each week the risk increases.
- All precautions should be taken to protect berry crops. In particular early picks of machine harvested blackberries and raspberries. These picks haven't been threatened to this extent in previous years.
- Go here for a [PCM factsheet on SWD risk factors](#). Minimize these risks as much as possible.

### Spotted wing drosophila resources

- [SWD I.D. Card](#) (UC Extension)
- [Spottedwing.org](#) Information from the 5 year SCRI regional project that just concluded. Cooperating organizations: OSU, WSU, Agri-Foods Canada, UC Davis, UC Berkeley, Peerbolt Crop Management & the USDA.
- [Spottedwing.org/SWD external links resources](#)

#### British Columbia

- [Spotted Wing Drosophila \(SWD\) Management in B.C. Berry Crops](#) last updated 6/24/14.
- [Canada—Spotted-wing Drosophila Technical Working Group](#)

#### Oregon and Washington (last updated 2/24/14)

- [USpest.org SWD Extension Documents](#) Many of Amy Dreves' generated SWD materials on managing and monitoring SWD.
- Blueberries: [SWD pesticide options and information](#)
- Raspberries and blackberries: [SWD pesticide options and information](#)
- Strawberries: [SWD pesticide options and information](#)

### 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 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.

## Pest Alerts

**Scout for:** [Silver leaf disease](#) symptoms in **blueberries**.

- *This is a recently identified disease that has so far been confirmed only in a few Draper variety fields in western Oregon. It's unknown how economic this disease will be.*



Silver Leaf disease symptoms—Draper blueberry field, Willamette valley 5/22/15. Photos by Tom Peerbolt

**Time to scout for and treat if needed:** [Yellow Rust](#), raspberries

**Scout for:** [Green Berry Botrytis Fruit Rot](#), blueberries



- The weather warming and drying will help reduce the incidence of green berry botrytis.

**Time to scout for and evaluate if management action is needed:** [Powdery Mildew](#), strawberries

- Dry, warm, humid conditions favor powdery mildew in strawberries.

## Additional, Ongoing Pest Information

### Diseases

- **Scout for:** [Phytophthora Root Rot](#) raspberries *Look for primocane collapse.*
- **Scout for:** [Purple Blotch](#) blackberries.

### Insects/Mites

- **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. Leaf feeding pattern is very distinctive.
- **Scout for:** **Root Weevils, strawberries & blueberries**. Larvae & adults of [Black Vine](#), [Rough Strawberry](#), and [Strawberry Root Weevils](#) are now being recovered from some fields.
- **Scout for:** [Blueberry Gall Midge](#), **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.
- **Scout for:** **Mites in raspberries (northern growing areas):** [Twospotted mites](#) [Yellow mites](#)
- **Scout for:** [Strawberry Crown Moth](#) **southern strawberries:** Infested plants will have a weakened crown and will often break off with a pull on the top growth.



Draper blueberries, Willamette Valley, 6/19/15 – photo by T. Peerbolt

## Crop Work

### All crops

- ***Sample for & treat as needed for SWD fruit infestation as soon as fruit begins to color.***
- Vole management.
- Weed management.
- Fertilizer program.
- Water management.

### All crops

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

### Blueberries

- *If ripe/coloring fruit is in field, can begin treating for prevention of SWD infestation.*
- After petal fall, can treat for [alternaria](#) and [anthracnose](#) prevention if needed.
- Scout for [mummyberry](#) infected fruit.

- Stay on top of aphid management where Scorch virus transmission is an issue.
- Scout for [leafroller larvae](#) & treat as needed.
- 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.
- Can put out pheromone traps to monitor for leafrollers. ([Orange Tortrix](#) and [Oblique Banded](#))
- Scout for berry symptoms like green fruit botrytis, hail damage, mummyberry, etc.

### **Blackberries**

- *Treat for prevention of SWD infestation.*
- Can put out pheromone trap to monitor for leafrollers. ([Orange Tortrix](#) and [Oblique Banded](#))
- 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.

### **Evergreen Blackberries**

- Scout for [blackberry rust](#) and treat as needed.

### **Raspberries**

- *Treat for prevention of SWD infestation.*
- Scout for [raspberry beetle](#) feeding symptoms
- Scout for [yellow rust](#) and assess treatment options.
- Scout for yellow mites and [twospotted mites](#).
- Scout for virus symptoms & send in samples for testing as needed.
- Can apply fungicides for [fruit/blossom rot](#) from 10% bloom through the end of bloom.
- Can put out pheromone traps to monitor for leafrollers. ([Orange Tortrix](#) and [Oblique Banded](#))
- Scout for [cane blight](#) and [cane botrytis](#) symptoms.

### **Strawberries**

- *After harvest, can treat for SWD control if field is adjacent to other susceptible, ripening, crops.*
- (Southern strawberries) Can scout for [strawberry crown moth](#) larvae.
- Scout for fruit damage symptoms like cat facing, slug damage, anthracnose, etc.
- Monitor ripe and ripening fruit for [SWD larvae](#).
- Scout for weevil adults & notching.
- Can apply fungicides for [fruit/blossom rot](#) from 10% bloom through the end of bloom.
- 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](#).
- In day neutral varieties scout for [lygus bug](#) and assess need for treatment.

## **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

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### Upcoming Regional Events & Commission Meetings

[Go here for Full Event Calendar](#)

### Upcoming National & International Berry Events

- **September 7-9 — 5<sup>th</sup> 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.
- **October 13-15 — 6<sup>th</sup> Biennial Berry Health Benefits Symposium** ~Madison, Wisconsin. [Go here](#) for all the details.

### Archived Small Fruit Updates

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

[25-SFU06-17-15](#)

[24-SFU06-10-15](#)

[23-SFU06-03-15](#)