

# 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, 2014

Week 20

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[Berry Category Growth Sticks to Double-digit Rate](#) (5/9, *The Packer*)

[Mexico's Berry Sector Showing Strong Growth](#)  
(5/9, *Fresh Plaza*)

**New Meeting Posting**  
Saturday, May 31<sup>st</sup>: [BC Blueberries--Spring Field Day](#)

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

## Notes for the week:

Watch the soil moisture levels!

- Caneberries are entering major bloom.
- Blueberries and strawberries are both blooming and into expanding fruit stage.
- Water needs are high & the evapotranspiration rate is increasing.
- Stressing plants now could be costly.

## Website Upgrades:

We've been upgrading the [BerriesNW.com](#) website:

Some of the improvements:

- Now more mobile device compatible.
- Better search functions on the [Pesticide Guide](#) & [Insects/diseases](#) sections.
- In general, more responsive and readable.
- We've also just posted Joe DeFrancesco's updated MRL guides (as of 5/9/14). They're linked in the Pesticide Section.

## Disseminating information for: Washington

[Washington Red Raspberry Commission](#)  
[Washington Blueberry Commission](#)  
[Washington Strawberry Commission](#)

## Oregon

[Oregon Raspberry and Blackberry Commission](#)  
[Oregon Blueberry Commission](#)  
[Oregon Strawberry Commission](#)

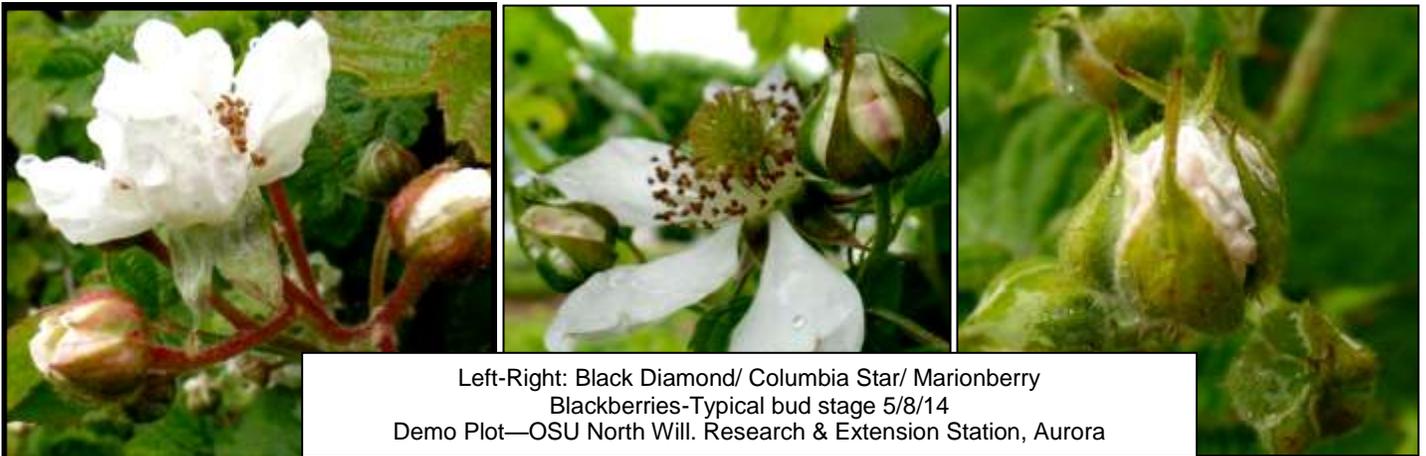
## British Columbia

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

## National

[North American Blueberry Council](#)

Tom Peerbolt, SFU Editor



Left-Right: Black Diamond/ Columbia Star/ Marionberry  
 Blackberries-Typical bud stage 5/8/14  
 Demo Plot—OSU North Will. Research & Extension Station, Aurora

## Regional reports

### British Columbia, Fraser Valley

- **Blueberries/Strawberries/Raspberries:** (Tuesday, 5/13) Great weather, 25C, light breeze, sunny. Fantastic bee activity. Rain is expected by Thursday evening. All sorts of applications happening right now. Most areas good on water supply, those on light soils need to watch already. Plants growing rapidly. Strawberries in full bloom, blueberries now past full bloom for early varieties and approaching full bloom in mid season ones. Raspberries, first blooms in the Eastern Valley in regular fields, weak fields 30% into it. Every pest under the sun has crawled out from wherever they were hiding, everyone needs to monitor really closely.
- **Blueberries:** (Monday, 5/12) Reka are at 70-90+ % bloom. Duke--60-80%. Bluecrop has almost caught up to Duke and is 50-70% bloom. There's minimal aphid pressure at this point. Warm weather expected this week should really move things along. Some nitrogen fertigation happening. Some calcium may start going on next week. Crop is still looking decent.
- **Blueberries:** (Monday, 5/12) A return to better weather this week (lots of rainy periods last week) should help wrap up the bloom on Dukes. Bluecrop will be in full bloom this week as well. First major nitrogen applications going on this week.
- **Raspberries:** (Monday, 5/12) For raspberries this week we will start spraying for raspberry beetle (Western Raspberry Fruit Worm) as fruit buds separate prior to early bloom. The last nitrogen applications are now going on as well just after side-shoot burns.

### Northern Washington, Whatcom County

- **Blueberries:** (Tuesday, 5/13) After the rain gave us some knock down of blueberry bloom it was a great week for pollination. Crop definitely looks far better than last year. Bees very busy even on days with limited sun and warmth.
- **Raspberries:** (Tuesday, 5/13) Raspberries will show signs of stress this week with 80+ degree temps. Arches are filling in with green foliage but I don't think late bud will give much increase in yield. Great early weed control is beginning to break down in many fields. We need a "Calisto" (*type herbicide--tp*) for bloom timeframe. IMO

### Western Oregon, Willamette Valley

(Thursday, 5/8) Got some torrential downpours today but next week we're looking at clear, dry and in the 80's most of the week. Guys are actually going to have to irrigate –many for the first time this year.

- **Strawberries:** (Thursday, 5/8) A SW Washington fresh marketer I visited last week thinks he'll have ripe Honeoye (*June-bearing strawberry variety*) fruit by May 15<sup>th</sup>. He had some coloring and with the heat he's probably right. June bearers for processed still on target I'd say for the first week of June. Next week should pretty much finish their bloom.
- **Blackberries:** (Tuesday, 5/13) Bloom in all the blacks, from just starting in Marion to 50% or more in Kotata, Silvan and Black Diamond. Varies considerably by area and even from field to field on same farm. Bloom sprays going on, probably a good idea to get one on before the rain comes the end of the week.

Excellent weather for the bees. First ties being done on AY fields. Good weather for planting new fields and for that matter anything.



*Above- this is a baby Columbia Star field trained to the bottom wire, near Cornelius, May 7.*



*Above-Marion field near Gervais, south side of the row, north side virtually no bloom, May 12.  
Below-Black Diamond field near Gervais, May 12. All photos by Bill Dinger.*



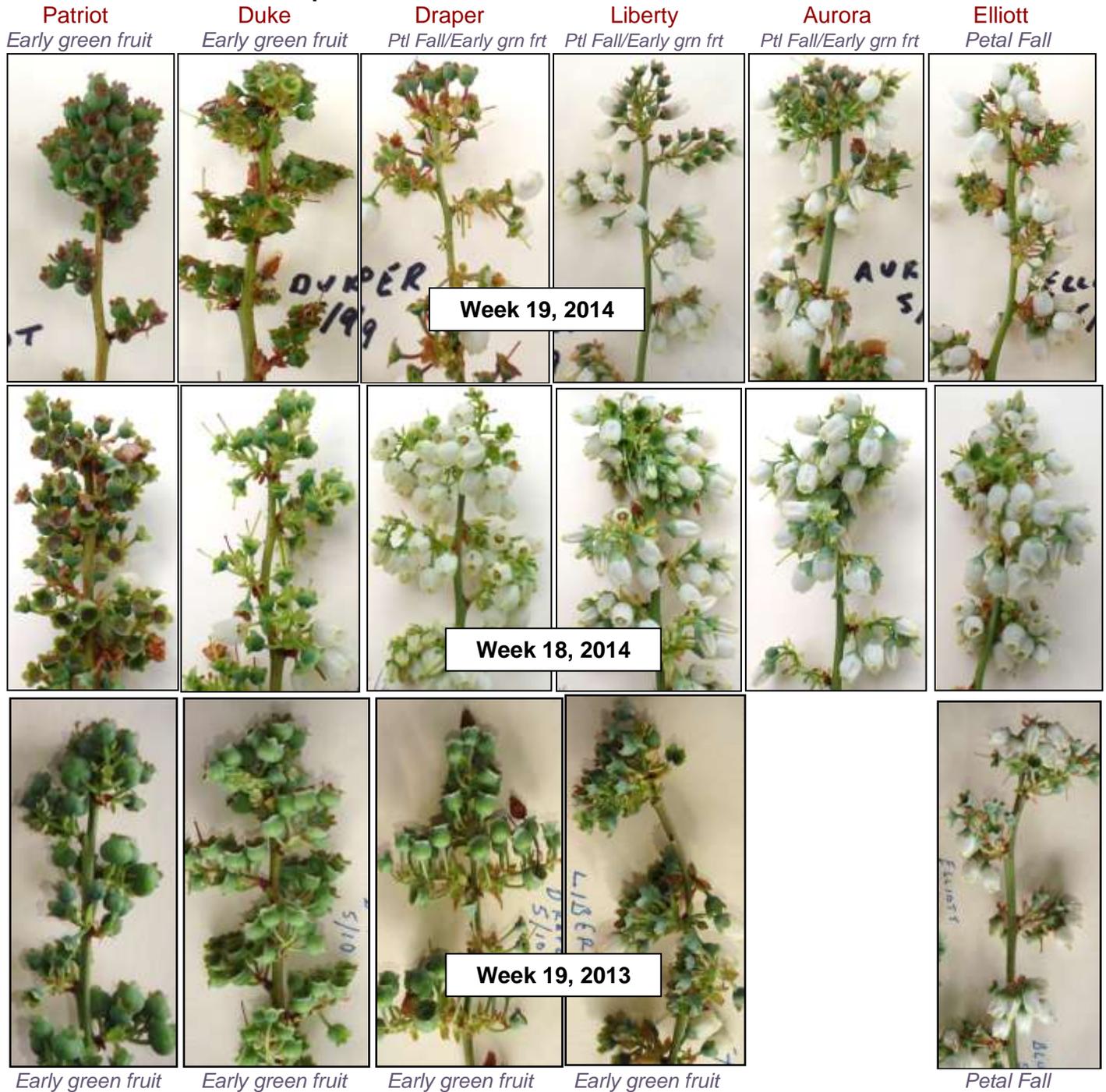
- **Blueberries:** (Tuesday, 5/13) Looks like a few days of nice weather here until the weekend rain. We will be watching soil moisture closely and likely irrigating by Thursday. Fish fertilizer applications are going on. Late bloom spray and greenberry fungicides going on still. I have found a few mummyberry primary infection strikes but pressure looks low again this year. We have a couple blocks with azalea bark and Lecanium scale that survived the dormant oil application....we are monitoring for crawler emergence in hopes that a Neemix application will reduce their numbers.

**Blueberry floral bud development over the past week & compared to same week in 2013**

*Note: The fields being sampled each week are in the Forest Grove/Hillsboro area. Other areas in the Willamette Valley are as much as a week ahead of these fields in degree days and in plant development.*

**Northwestern Willamette Valley**

**Top – 5/9/14 Middle – 5/2/14 Bottom – 5/10/13**



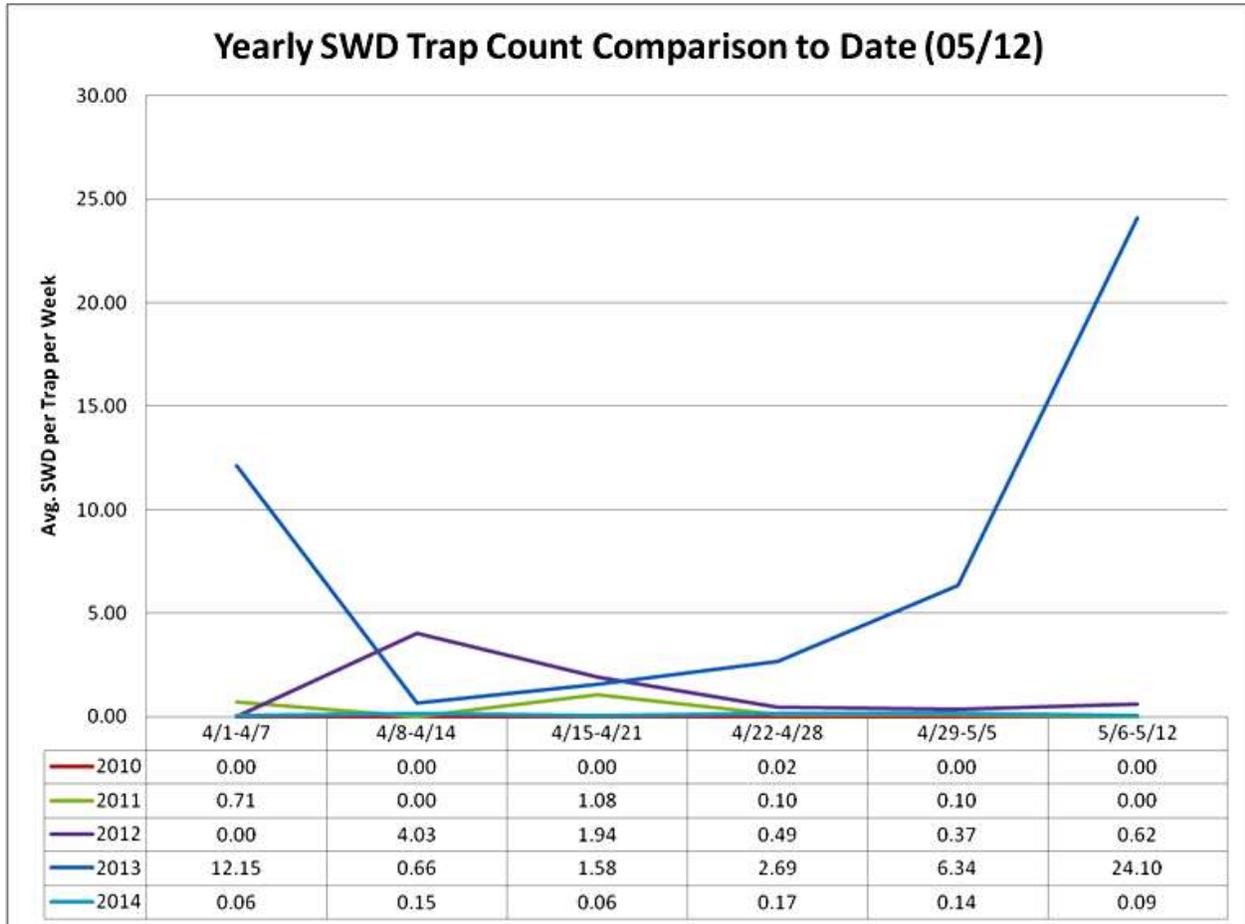
## SWD Report for week 20

### Willamette Valley trap count comparison, season to date, 2010-2014

**Note:** This chart is an indicator of SWD population levels as compared from year to year but is *just an indicator*. We have changed some fields, some trap locations, and some trap baits and types as well as other factors that influence trap catches over the last five years as we learn and adapt. This is a dynamic, developing process—our ability to monitor and forecast this pest and the risks it poses has improved each year. Keep that in mind when interpreting this information.

#### From Jason, PCM scout supervisor/consultant:

The numbers have changed slightly as new data has been entered to the public database, however, the trend hasn't changed. SWD trap counts remain comparable to the moderately low pressure years of 2010 and 2011.



## New Pest Alerts

### Ripe Blueberry 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.



*Alternaria fruit rot. 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.



*Anthracnose ripe rot. Photos by Caroline Teasdale*

**Grower resources**

- [2014 OSU Blueberry Pest Management Guide for the Willamette Valley](#) (OSU Extension, Revised April, 2014)
- [Tissue testing in blueberry—When's the right time and do cultivars differ?](#) (5/12, Oregon Blueberry Commission Update) *As Dr Strik, this article's author, points out, they've only got one year's data so this should be taken as preliminary information. However, it gives strong indications of cultivar differences in some nutrient levels that would indicate the need to interpret sampling results differently depending on cultivar.*
- [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.*
- [Accurate identification is key to a successful pest management program](#) (5/9, MSU Extension)
- [8 ways to improve internal drainage in blueberries](#) (5/6, Growing Produce)
- [Berry growers try protected environments, new packaging techniques](#) (5/9, The Packer)

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## Industry news/resources

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### Newsletters/ berry reports

- [BC Blueberry IPM Newsletter](#) (5/10) Weekly by [ES Cropconsult](#). Sponsored by the BC Blueberry Council.
- [Whatcom Ag Monthly](#) Produced by WSU Whatcom County Extension. Includes excellent berry crop information.
- [The New Jersey Blueberry Bulletin](#) (5/5) A weekly grower update from Gary Pavlis, Rutgers Extension agent.
- [Oregon Blueberry Commission Update](#) (5/12) Spring, 2014 Issue.
- [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.
- [Export Market Update](#) (5/9) from General Produce Company
- [Market Report](#) (5/12) from General Produce Company
- [The Source](#) (5/12) Market reports from The Produce News.

### Magazine/website compilations

- **The Packer:** [blueberries](#), [blackberries](#), [raspberries](#), [strawberries](#).  
Recent stories and fresh market pricing for the various berries from The Packer.
- **Growing Produce:** [recent berry articles](#).
- **Fresh Fruit Portal:** [blueberries](#), [blackberries](#), [raspberries](#), [strawberries](#).  
Recent stories for the various berries from Fresh Fruit Portal.

### Berry research blogs

- [Strawberries and Caneberries](#) by Mark Bolda, UC Davis Berry Extension Agent. **Recent Entry (5/6): Intrepid 2F now labeled for use in caneberries.** 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.

### Pesticide Residues

- [Environmental Working Group's 2014 Dirty Dozen List](#) (ewg.org)
- [Latest dirty dozen list draws criticism from produce industry group](#) (4/30, Growing Produce)

### Climate/Water

- [Drought conditions in California shouldn't hurt berry harvest](#) (5/9, The Packer)

### Company Updates

- [California Giant blues entering peak season](#) (5/12, Fresh Plaza)
- [Driscoll's expects early raspberry peak](#) (5/9, Fresh Plaza)

### West

- [California blueberries start early](#) (5/9, The Packer)
- California: [Grower-shippers market more than strawberries](#) (5/9, The Packer)
- [New research highlights California strawberry growers' huge impact on society](#) (5/9, Growing Produce)

### North America

- Georgia: [High blueberry volume coming in May](#) (5/9, The Packer)
- [Georgia produce business updates](#) (5/9, The Packer)

### International

- [Peruvian blueberry exports double in 2014](#) (5/12, Fresh Fruit Portal)
- [Driscoll's set for earlier Mediterranean raspberry peak than normal](#) (5/13, Fresh Fruit Portal)



## Event calendar

- **May 21 — Workshop for Machine Harvesting Fresh Market Blueberries** ~ 9-4pm , [North Willamette Research and Extension Center](#). [Click here](#) for registration & agenda.
- **May 22 — OSU Extension Workshop—A warm-up: Management Tools for SWD** ~ 9-1pm Free but space is limited so early registration is encouraged. [North Willamette Research and Extension Center](#). [Click here](#) for registration & agenda.
- **May 29 — Willamette Valley Berry Fieldman/Grower meeting**, 8am at [North Willamette Research and Extension Center](#). [Dave Bryla](#), USDA horticulturist who's done a lot of research on irrigation & nutrition in berry crops will be joining us. Free for all. Coffee & donuts! Call or [email](#) Peerbolt Crop Management for information, 503-289-7287.
- **May 29 — National Processed Raspberry Council**, SeaTac Marriott, Seattle, WA. For more information, call Tom Krugman at 360-354-0948. [Click here](#) for the Council's website.
- **New Posting: May 31 —BC Blueberries Spring Field Day**. Bates Farm, 57 B Street between Deltaport Way and 34B Ave, Delta. 12-3:30 pm (lunch provided). Pollination, weed management, SWD, weevils, and more. [Click here](#) for the announcement.
- **June 11 — OSU Strawberry Open House** ~ 1:00-4:30 pm North [Willamette Research and Extension Center](#) (NWREC) *A focus on the breeding program & research for commercial growers. Details TBA.*
- **June 18-19 — [Annual Maximum Residue Limit \(MRL\) Harmonization Workshop](#)** (4/14, Growing Produce) In San Francisco. Organized by the California Specialty Crops Council. [Click here](#) for registration & agenda information.
- **June 26 — Willamette Valley Berry Fieldman/Grower meeting**, 8am at [North Willamette Research and Extension Center](#). Call or [email](#) Peerbolt Crop Management for information, 503-289-7287.
- **July 9 — OSU Caneberry Field Day** ~ 1:00-5:00 pm [North Willamette Research and Extension Center](#) (NWREC) *A focus on the breeding program & research on conventional and organic production systems for commercial growers. Details TBA.*
- **July 16 — OSU Blueberry Field Day** ~ 1:00-5:00pm [North Willamette Research and Extension Center](#) (NWREC) *A focus on the breeding program & research on conventional and organic production systems for commercial growers. Details TBA.*
- **August 20 & 21—North American Strawberry Growers Association** ~ Summer tour, in BC. [Click here](#) for the NARBA website. More details coming soon.

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# Week 20 --- Pest management & field work

## Ongoing Pest Alerts/Scouting Information

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*See section above for details on new Pest Alerts for:*

### Blueberry Diseases

- [Alternaria Fruit Rot](#)
- [Anthracnose Ripe Rot](#)

### 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.

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### 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. We're seeing the disease beginning to get going in some area fields. (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

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- **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 had a weakened crown and often will break off with a pull on the top growth.

# Crop Work

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## All crops

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

## Blueberries

- Bring in bees around 10% bloom.
- Apply bloom applications to prevent fruit molds.
- Treat for [Mummyberry](#) as needed.
- 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.

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## Archived Small Fruit Updates

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

[19-SFU05-06-14](#) [18-SFU04-29-14](#) [17-SFU04-22-14](#)