

# 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 23, 2013**

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- [New “Dirty Dozen” produce list is EWG’s “Oldie”](#) (4/23, Food Safety News)

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*Feels like the good side of spring this week. Sunshine, warmer temps, great pollination weather for blueberries, strawberries blooming...and nice green growth covering up all those weak spots. Life is good for berry growers, field scouts and bees.*

*A reminder for those of you in the vicinity, we're having our first:*

- **Willamette Valley Berry Fieldman/Grower meeting,** Thursday, April 25th 7:30 to 9:00 am at the [Langdon Farms Golf Club](#) restaurant. Coffee, juice & bagels for all.
- Dr. Bernadine Strik will be joining us to discuss “Taking a new look at interpreting tissue nutrient levels in berry crops”.

**One other reminder:** Growers (at least in the southern areas) are going to have to begin monitoring soil moisture levels. Make sure you're ready to irrigate when and where it's needed. Blueberry bloom and petal fall could be a costly time to find you've stressed your plants.

Tom Peerbolt, SFU Editor

## Disseminating information for:

### Washington

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

### Oregon

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

### British Columbia

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

### National

[North American Blueberry Council](#)

# Regional Crop Information

## New Management options for BC Strawberry Growers

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From Mark Sweeney, BC Ministry of Agriculture Berry Crops Specialist: "With strawberry planting season approaching, BC growers have a few newly registered product options to help with establishment."

- For **Black root rot** (*Rhizoctonia sp.*), which can cause plant decline and death in new plantings, growers now have two protective fungicides to suppress the disease in new plantings:
  - **Quadris** (azoxystrobin) [Click here](#) for the label.
  - **Scholar** (fludioxonil). [Click here](#) for the label.
- For post-emergence control of emerged seedling weeds in new June-bearing strawberry plantings:
  - **Betamix** (phenmedipham & desmedipham) [Click here](#) for the label.
- For additional information on these and other management options, [click here](#) for the BC Production Guide site.

## Regional Reports

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*These reports are from individuals within the region and are their particular observations. They are included to give an impression of the present 'state of the industry' and regional activities.*

### British Columbia, Fraser Valley

(4/21) Looks we have a frost warning tonight, but warmer drier weather for this week.

- **Blueberries:** (Friday, 4/19) From the [Blueberry IPM Newsletter](#): The cooler weather over the past week has slowed bud development. Most varieties remain at the pink tip stage. Flowers are starting to open in a few varieties in some regions of the Fraser Valley:
  - 1613/Hardibblue, Bluejay, Rancoca 0-2% bloom
  - Northland, Patriot, June 2-20% bloom
- **Blueberries:** (Monday, 4/22) Things are going to roll now in the blues. Lots of bloom to come with the forecasted warm conditions this week. A good percentage of bloom on Reka, Bluegold with early bloom showing on Duke and some on Bluecrop. Bees were placed late last week and into the weekend and will be totally in place by the end of the week.
- **Raspberries:** (Monday, 4/22) Raspberries started moving with a warm afternoon yesterday after looking yellow and frozen during the cool wet weather of last week. More weevil activity showing up and we have started to do some early treatments for two spotted spider mite infestations. Yellow rust infections also starting to show (especially on Chemainus, Saanich) and treatments in the ready for this as well. On the whole though, at this point, I think the raspberries look promising.

### Skagit County, Northern Washington (Monday, 4/22)

- **Blueberries:** We are about 15-20% on Duke and Reka, maybe 10% on Bluecrop; Elliot and Liberty flowers are still quite a ways from opening. Had a light frost last night, but no obvious damage on the flowers, even on O'Neal which has a few at petal drop stage (the most susceptible to frost). Had quite a lot of tent caterpillar nests in the blueberries, but an application of Dipel last week seems to have set them back pretty well. Shock symptoms are visible now.

### Willamette Valley, Oregon and SW Washington

- **Strawberries:** (Monday, 4/22) Bloom development stalled this past week with the cooler temperatures, but will be moving fast with 70's coming this week. Some close calls with low temperatures but don't think any economic damage was done. Just lost some of the 'bird berries' that would have ripened too soon anyway. Most fields have gotten (or will get in the next few days) their first bloom spray.
- **Blueberries:** (Tuesday, 4/22) Some Dukes are past 25% and given this next week we will be into petal fall soon. All's well with the overall potential. Couldn't ask for better pollination weather. Bloom applications are ongoing.

**Blueberry bud development—Western Willamette Valley**  
**4-12-13 (Bottom)                      4-19-13 (Top)**



- Blackberries:** (Tuesday, 4/20) Cooled off some last week, especially at night so no bloom in Black Diamonds. Warm weather this week should get the bloom going in a few days. An occasional bloom in Silvans. Marions now probably won't see bloom until May 1. Still think about 10 days ahead of last year but close to normal on timing. Cane burning ongoing and blackberries being planted, nice weather for that.

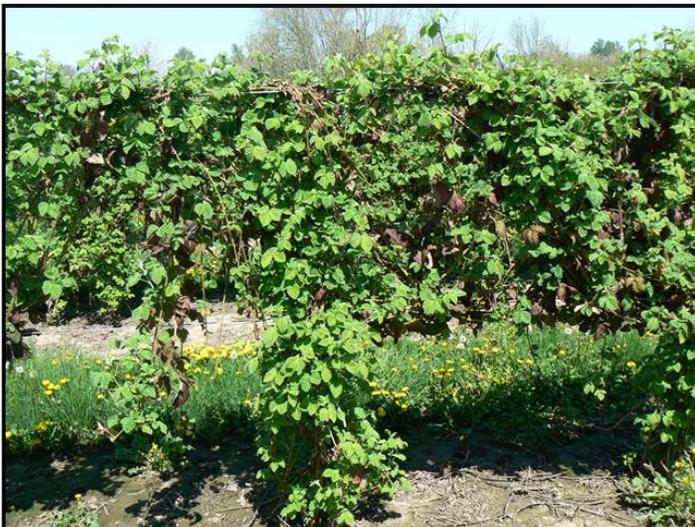


Black Diamond 4-22-13

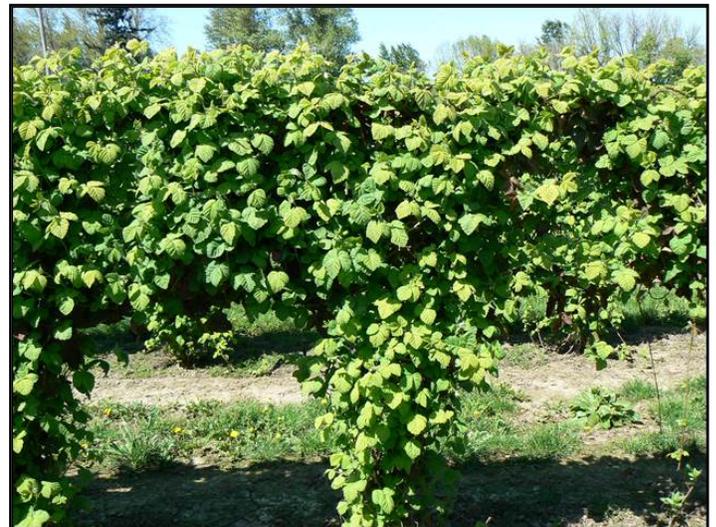


Marionberry 4-22-13

*All photos by Bill Dinger*



Marionberries 4-23-12



Marionberries 4-22-13

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## Spring Weather Risks

### Pictorial blueberry growth stages with temperature damage thresholds

- [Blueberry growth stages and critical spring temperatures](#) (Michigan State Extension)
- The relevant stages & temperature thresholds from the chart:
  - **Late pink bud:** "Individual flowers fully developed. Expanded corollas are now white but still closed. This bud stage can tolerate 24 to 27°F (-4.4 to -2.8°C)."
  - **Full bloom:** "Most of the flowers on the bush have opened. The bloom stages can tolerate 28°F (-2.2°C)."
  - **Petal Fall:** "The corolla tubes are falling off the flowers, revealing small green fruit. This is the most vulnerable stage to freeze injury. Damage can occur at 32°F (0°C)."

### Early Spring Weather Management Information

- [Using your sprinkler system to protect blueberries from freezes](#) (Eric Hansen, Michigan State Small Fruit Specialist)
- (All berries) [Frost protection: Tips & Techniques](#) (Kathy Demchek, Penn State)

## Grower Resources

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- [Soil moisture sensors](#) (first posted 4/18/13) UC Davis Farm Advisor, Bill Faber)
- [Mite control options in fruit crops.](#) (first posted 4/24/12) MSU Extension. A table of materials and key variables.
- [Information on 'Copper products, characteristics and uses'](#) (first posted 4/12/11) MSU Extension. Includes a table of materials and key variables.

## Nutrient Management

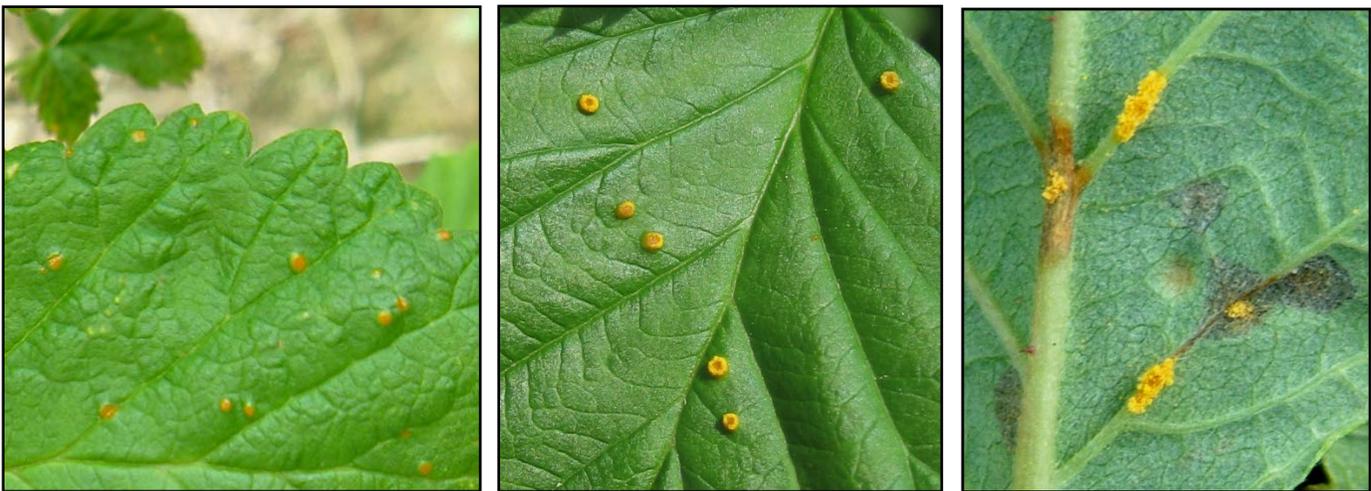
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- [Click here](#) For OSU's "Nutrient Management in Blueberries" (16 page pdf).
- [Click here](#) for OSU's "Nutrient Management Guide—Caneberries" (8 page pdf).

## Disease Alerts

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



Stages of Yellow Rust (from left) spermatia, aecia, uredinia: Right now it's mostly in the first stage.  
(Middle photo by Carolyn Teasdale, others by Tom Peerbolt)

- Yellow rust is now changing spore stages from black overwintering spores (teliospores) to yellow/orange colored 'blisters' (spermatia) on the top surface of leaves.
- This is followed closely by a very visible, almost day-glow orange/yellow spore stage (aecia).
- The fourth spore stage (uredinia) appears later in the season as yellow 'dust' on the bottom of leaves. This last stage is the one that multiplies quickly & can quickly defoliate canes if left untreated.
- Evaluate disease incidence and stage to determine whether (& when) fungicide applications are warranted.

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**Vector management: [Scorch virus](#)** – Areas with confirmed scorch virus present.

### Blueberries, Vector (aphid) management

- From an April, 2011 B.C. Pest Alert: "Blueberry scorch virus is transmitted by aphids. An effective aphid control program should be used by all growers. *Fields should be treated before bloom with a registered aphicide to control the over-wintering aphids before they reproduce and disperse.*"
- Click on the blue link above for full information from the B.C. Ministry of Agriculture. Check with your berry management specialists, both public and private, for more specific recommendations and selection of appropriate management materials.

- You can also email the B.C. Blueberry Council's research coordinator, [Karina Sakalauskas](#) (or call her at (604) 613-2133) for information.

### **Time to scout for: [Shock virus](#) – southern blueberries.**

- Symptoms are becoming visible in many fields in the southern areas.
- This disease is vectored by pollinators.
- There is no treatment or cure.
- Infected bushes generally display symptoms for one year and then return to productivity.

**Time to treat for: [Mummyberry](#) blueberries** Time to be in prevention mode! In fields with a history of mummyberry now's the time to be implementing your management program and keep it going as consistently as possible all the way through the end of bloom. We're still in the initial infection stage for this disease.

**Time to treat for: [Downey Mildew](#) boysenberries, Kotata blackberries (occasionally other blackberries):** This is a systemic disease that only displays symptoms if environmental conditions are right in the spring. It can cause major losses due to misshapen berries. A distinctive red leaf pattern is also diagnostic of the disease. Phosphite applications in the spring are recommended to prevent outbreaks.

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

## **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.
- Plan for bloom applications to prevent fruit molds.

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

### **Blackberries**

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

### **Evergreen Blackberries**

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

### **Raspberries**

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

### **Strawberries**

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

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## **Industry News/Resources**

### **Newsletters/ Berry Reports**

- [BC Blueberry IPM Newsletter](#) (4/19) Weekly by Carolyn Teasdale, [ES Cropconsult](#). Sponsored by the BC Blueberry Council.
- [Michigan State Extension Blueberry News](#) (4/22)
- [New Jersey Blueberry Bulletin](#) (4/15) Excellent weekly newsletter by Gary Pavlis, Rutgers blueberry agent.
- [The Source](#) (4/22) Market reports from The Produce News
- [Market Pulse](#) (Week 15) Market reports from Fresh Fruit Portal
- [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.

### **Magazine compilations**

- The Packer's Market scope: [blueberries](#) [blackberries](#) [raspberries](#) [strawberries](#)  
*Recent stories and fresh market pricing for the various berries from The Packer.*
- Growing Produce: [recent berry articles](#)

### **Berry Research Blogs**

- [Strawberries and Caneberries](#) by Mark Bolda, UC Davis Berry Extension Agent. **Recent entry: 4/18—Watsonville Strawberry Pomology field day, Tuesday, May 7** *Reports on recent insect and disease research and observations in California.*
- [Team Rubus](#) by Gina Fernandez, North Carolina State Small Fruit Specialist. **Recent entry: 4/18—Pruning & planting blackberries at Center for Environmental Farming Systems** *Reports on issues in blackberries and raspberries from the Southeast.*
- [NC Small Fruit and Specialty Crop IPM](#) by Hannah Burrack, NCSU extension entomologist. **Recent entry: 4/18—Spotted wing drosophila monitoring recommendations for 2013** *Reports on insect issues in the Southeast.*

### Pesticide Issues

- [Rush to ban neonicotinoid pesticides often political](#) (4/22, Western Farm Press)

### Food Politics

- [House Ag committee Farm Bill Mark-up announced](#) (4/19, USagnet)

### Food Safety

- [FDA to extend comment deadline for produce safety rule](#) (4/19, Food Safety News)

### Labor & Immigration

- [Advocates of immigration reform fight back against push for delay](#) (4/21, Washington Post)
- [Bill would replace H-2A & E-Verify programs](#) (4/18, The Packer)
- [Produce groups, others support immigration reform](#) (4/17, The Packer)
- [How the immigration deal got made](#) (4/17, Politico)

### West

- Oregon: [Immigrant driver's card bill goes to Senate floor](#) (4/19, Capital Press)
- Washington: [Inslee to sign bill adding expertise to commodity commissions](#) (4/22, Capital Press)
- California: [Low cost strawberry for consumers this year](#) (4/23, Fresh Plaza)
- California: (strawberry) [Commission funds research into health benefits](#) (4/23, The Packer)
- California: [Modesto strawberry crop looking good](#) (4/18, Fresh Plaza)
- California: [Strawberry production, acreage continue to increase](#) (4/18, Capital Press)

### North America

- [Latest update on Midwest fruit conditions](#) (4/23, Growing Produce)
- [New processed raspberry council to establish structure in May](#) (4/18, Capital Press)
- Michigan: [Cold & rainy weather preventing blueberries from an early bloom](#) (4/16, MSU Extension)
- Michigan: [Michigan blueberry crop rebounds](#) (4/19, Fresh Plaza)

### International

- Germany: [Berries on the rise](#) (4/23, Fresh Plaza)
- Germany: [Fresh raspberries lose ground to frozen counterparts](#) (4/23, Fresh Plaza)

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## Food Safety Events

### **Oregon Food Safety Training Offered**

***by the Oregon Raspberry & Blackberry, Blueberry, and Strawberry commissions***

- [Click here](#) for the website with registration and detailed information.
- Class is free of charge but RSVP is required.
- **Dates & locations:**
  - **May 2** Riverbend Organic Farm – 35711 Helms Dr., Jefferson
  - **May 7** Willamette Valley Fruit Co. – 2994 82nd Ave NE, Salem
  - **May 16** HBF International – 310 NE Kirby St, McMinnville
  - **May 21** Western Star Grange Hall #309 – 30423 Tangent Dr., Albany

# Event Calendar

For more comprehensive event calendar, [click here](#).

- **April 25 — Willamette Valley Berry Fieldman/Grower Breakfast** ~ 7:30 to 9:00 am, [Langdon Farms Golf Club](#), 24377 NE Airport Road, Aurora, OR. Call 503-289-7287 or [email](#) for more information. Bernadine Strik will be joining us to discuss berry crop nutrition. Coffee, juice & bagels for all. This is being scheduled for the fourth Thursday the month.
- **April 30 — Oregon Raspberry & Blackberry Commission** ~ 6 pm [Langdon Farms Golf Club](#). Call 541-758-4043 or [email](#) Phillip Gutt for more information.
- **May 6 — Oregon Blueberry Commission** ~ Noon at [Chemeteka Community College](#), Chemeteka Events at Winema, building 48, room 210. For more details call (503) 364-2944 or email [Lisa Ostlund](#).
- **May 9 — Webinar on the Department of Labor Hot Goods Issue:** [Click here](#) for information & registration (*Washington Farm Labor Association*)
- **May 23 — Willamette Valley Berry Fieldman/Grower Breakfast** ~ 7:30 to 9:00 am, [Langdon Farms Golf Club](#), 24377 NE Airport Road, Aurora, OR. Call 503-289-7287 or [email](#) for more information.
- **June 5 — OSU Strawberry Open House** ~ 1-4:30 pm, North Willamette Research & Extension Station, Aurora Details TBA
- **June 18-20 — Berry Health Benefits Symposium** ~ Charlotte, North Carolina. [Click here](#) for registration and agenda information.
- **June 27 — Willamette Valley Berry Fieldman/Grower Breakfast** ~ 7:30 to 9:00 am, [Langdon Farms Golf Club](#), 24377 NE Airport Road, Aurora, OR. Call 503-289-7287 or [email](#) for more information.
- **July 10 — OSU Caneberry Open House** ~ 1-5 pm, [North Willamette Research & Extension Station](#), Aurora Details TBA
- **July 12-13 — Oregon Berry Festival** ~ Portland, Sponsored by the Oregon berry commissions as well as many Oregon berry farms and berry related businesses. [Click here](#) for the website with a schedule of events and more details.
- **July 17 — OSU Blueberry Field Day** ~ 1-5 pm, [North Willamette Research & Extension Station](#), Aurora Details TBA
- **July 19 - 20 — Northwest Raspberry Festival** ~ Lynden, Sponsored by the Lynden Chamber of Commerce. [Click here](#) for the website with a schedule of events and more details.
- **July 25 — Willamette Valley Berry Fieldman/Grower Breakfast** ~ 7:30 to 9:00 am, [Langdon Farms Golf Club](#), 24377 NE Airport Road, Aurora, OR. Call 503-289-7287 or [email](#) for more

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## Archived Small Fruit Updates

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

[SFU04-17-13](#)   [SFU04-09-13](#)   [SFU04-02-13](#)

This document is a guide and not intended as a recommendation or endorsement.  
Consult with your supplier, field representative, or pest consultant.