

Small Fruit Update



The Small Fruit Update is sent out weekly during the growing season by [The Northwest Berry Foundation](#) and is funded entirely by the Northwest berry growers and industry through their commissions and councils.

February 24, 2016

Week 8

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- [Oregon crop and insect growth gets a head start](#) (2/17, Capital Press)
- [USDA Agricultural projections to 2025](#) (Released - February, 2016) *Lots of 'big picture' stuff here!*

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

Upcoming workshops for growers

- **New Posting: February 29 — Skagit County Berry Breakfast**
 - 7:30 am at the WSU Mt Vernon Research & Extension Center.
 - [Go here](#) for the agenda & registration information.
 - 2 Washington pesticide credits applied for.
 - **Contact info:** [Don McMoran](#), 360-428-4270 x 225.
- **March 9 — 11th Annual Production Workshop for Commercial Raspberry & Blackberry Growers**
 - 8-4 pm at the Wellspring Conference Center in the Silverton Health Building, 1475 Mt. Hood Ave., Woodburn.
 - [Go here](#) for the draft agenda.
 - 2 Oregon pesticide credits applied for.
 - **Please RSVP if you plan on coming. It's free but space and food are limited. Call 503-289-7287 or email anna@peerbolt.com**
- **New Posting: March 16 — Water Talks**

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](#)

- 9:30 – 2:30 at [Water Tec](#) in Lynden, WA. with lunch included.
- [Go here](#) for details and registration information. [Go here](#) for the agenda.
- \$20 registration fee before March 13/\$27 after that date.



March 27, 2014. Willamette Valley

Blueberry Disease Alert

Mummyberry (blueberries) Throughout the Northwest we're very close to fields being vulnerable to infections. Be ready with a management program by the time fields at risk reach 'green tip stage'. That's when new infections can begin.

- **So, what is "green tip stage"?** [Click here](#) for a chart from Michigan State of the various stages of blueberry growth development.
- [Mummyberry primer from MSU](#)
- **Some critical points:**
 - The optimum temperature for spore release and infection is 50 to 57°F (10 to 14°C). Figure on when temperatures go over 45F in our area you're into the danger zone.
 - At least 12 hours of wetness is required for infection.



Mummyberry stipes: Stage indicating the apothecia will emerge if conditions are right.



Mummyberry apothecia: 'Mushroom' stage when spores are being released & can infect plant tissue.

March 6, 2015. Willamette Valley



Regional Reports

British Columbia, Fraser Valley (Saturday, 2/20)

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

- **Weather:** Too warm, several degrees above normal during the day and unfortunately at night also. Fields are saturated right now. However, Monday - Thursday promise to be dry. So perhaps by Thursday many fields will be drivable. We are a bit behind last year, which was a freak year. However, we're close.
- **Blueberries:** Near all varieties are at bud burst with weaker plants showing first green and [Pink Lemonade](#) (don't ask why I have it) is growing actively with leaves visible. Careful on dormant oils, if any green is showing damage might ensue.
- **Raspberries:** Now at full bud break everywhere and weak fields showing first leaves.
- **Strawberries:** They're low enough to the ground to not be as affected by the air temperatures. No movement at all yet. The same thing happened last year--strawberries were the last to move ahead.
- **Blackberries:** Full fledged growing out. They have leaves showing and elongation to 5 cm (2").
- **Blue Honeysuckle:** Some are in mid bloom. Others are just starting. Some are actively pushing leaves out already. Lots of growth showing.
- **Tree Fruit:** All still tight bud, but flower buds on any prunus are swelling already. Peaches and nectarines are close to first flower buds.
- **Ornamentals** (*I use them for judging how season progresses*): 5 days away from full blooms on Forsythia. Magnolia buds are swelling for bloom.
- *My unfertilized lawn needs the first haircut when it gets dry enough.....*

British Columbia, Fraser Valley (Monday, 2/22)

- **Blueberries:** There has been significant change from last week. Some fields of Reka have opened up enough to see the individual flowers inside the bud. I think mummyberry sprays will begin later this week in some of the high pressure fields with warm weather expected (16 deg C). We received a lot of rain over the past week and many fields are really wet. Hopefully by the end of the week some growers will be able to get out there. Still some growers trying to finish up their pruning. We are ahead of normal but definitely not as early as last year.

British Columbia, Fraser Valley (Tuesday, 2/23)

A really wet last week has left us up here in the Fraser Valley with difficult conditions in lots of fields. Some farms in the Matsqui and Sumas Prairie area of Abbotsford could offer boat tours. Plant development with the mild weather has really pushed things along as most are reporting elsewhere. Going to really warm up as the week progresses so there could be significant changes by weekend. Weed control is starting to really ramp up where field conditions allow.

- **Blueberries:** Bluecrop and Reka leaf buds showing some leaf tissue extension and are pushing hard. Dukes at green tip with a bit of exposed tissue on the highest leaf buds. Probably start spraying for mummyberry next week. Although I've got some early fields on sand that will probably go late this week or weekend. Really notice the benefits of a good pruning crew. Cleanly pruned bushes don't have a lot of precocious emerging leaf buds from thin poor cane and laterals that become an early infection target.
- **Raspberries:** Lime sulphur going on raspberries. Meeker buds are swelling with some tip-bud emergence. Rudi, Chemainus, and Saanich are at full cane bud burst.

Northern Washington, Whatcom County (Monday, 2/22)

- **Blueberries:** Huge leap in Blueberry development this last week. Just about all are well into bud break, and some have vegetative development as well. Extreme wet conditions are delaying mummyberry fungicide applications and herbicide applications. Better weather this week will help if fields will dry rapidly enough to allow field work.
Raspberries: All raspberries are in bud break with stressed and new fields farthest along (as you would expect). Still not as far along as last year at this time, but much farther than desirable. Sun came out Saturday morning....I thought I left the light on. Forgot what it looked like!

Northern Washington, Skagit County (Monday, 2/22)

- **Blueberries:** Early varieties are showing ¼" green tip all over Skagit Valley this a.m. Predicted warm weather this week along with free surface water from the next rain event will provide ideal conditions for mummyberry infection. Some growers with tracked equipment are spraying despite the very wet field conditions. Most Skagit growers have standing sheet water in the fields and drainage ditches to contend with before they can get started.

Northern Washington, Skagit County (Monday, 2/22)

From [Tom Walters](#), Walters Ag Research, Anacortes, WA. We had a warm pattern in Skagit and Whatcom last week, back down to typical temperatures now. So much rain that it's hard to get into many fields, though.

- **Mummyberry:** Dalphy Hartevelde at WSU-Mount Vernon is finding mummies developing. Not with full apothecia yet, but getting close. In our disease research plots we're thinking of getting a first mummyberry spray on in the organic trial late this week or early next.
- **Misc:** In the ornamental department, the plums have started blooming, daffodils are open in sheltered places and cut the grass for the first time on Saturday.

Eastern Washington (Saturday, 2/20)

- **Blueberries:** It's warming up a bit over here too. Looks to me like bud development is real similar to last year. Pruning is wrapping up and herbicide applications are going on.

Western Oregon, Willamette Valley (Tuesday, 2/23)

- **Blueberries:** The blueberry floral bud development photos below seem to agree with Bill's comments in the blackberry report about the Willamette Valley being on about the same time table as last year's record breaking early season. The main difference being right now that we're coming out of a whole lot wetter winter than in 2015. In blues, bud counts and overall field health look excellent. Grower should be prepared for cold protection since plants are more vulnerable in this early window. Next few days are supposed to be dry with highs in the 60's (16-18 C). Had frost the last couple of nights so at least we've got that factor slowing things a bit...cold without being too cold...
- **Blackberries:** Sulfur being applied to the early blackberries and some going on Marions. I'd expect most Marion guys to be started by the end of the week. Herbicides going on all varieties. Looks like we made it through the winter in good shape, no cold weather, of course I am sure the SWD made it through the winter too. I might be the lone voice of dissent but I think we are about even with last year in development, degree days wise we are virtually the same. For comparison a couple of pictures from the same Black Diamond field, one taken last year and the other this year, one day apart. Not sure if the dead canes show up in the picture very well but those are canes from the previous years, most guys, to save on labor are training over the old canes. This practice is especially common in the thornless varieties.

Black Diamond blackberry field near Gervais, OR.
Top: February 24, 2015 **Bottom:** February 23, 2016

Photos by Bill Dinger



Grower Resources

- [Strawberry Disorders: Identifications & Management](#) (Released February, 2016, UCD)

Late winter/early spring weather risk information

- [Blueberry growth stages and critical spring temperatures](#) (Michigan State Extension)
 - The relevant stages & temperature thresholds from the chart:*
 - **Bud Swell:** “Visible swelling of buds; scales separated. Can tolerate 10-15 F (-12 to -9 C)”.
 - **Tight cluster:** “Individual flowers distinguishable. Can tolerate 20-23 F (-7 to -5 C)”.
- **Early spring weather management information links**
 - [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) [Frost & freeze protection: Blueberries](#) (www.eXtension.org)

Blueberry Bud Development Comparison for the Western Willamette Valley

- I've been taking weekly bud development comparison photos from the same fields the last few years.
- I know there aren't a lot of Patriot plantings around. I use it because: 1) It's one of the earliest cultivars to break bud; 2) Because of the early bud break, it's likely to show any cold damage before the others; 3) It's available on the same farm as the other monitored fields so it's valuable for comparison purposes.

Northwestern Willamette Valley Top – 2/19/16 Middle – 2/12/16 Bottom – 2/20/15

Patriot

Bluejay

Duke

Draper

Liberty



Patriot

Bluejay

Duke

Draper

Liberty

Industry news/resources

Northwest fresh market blueberry exporting opportunities

- **Oregon**
 - [Go here](#) for all the details.
 - Packer and grower registration deadline is **March 11**.
- **British Columbia**
 - [Go here](#) for information.
 - [Canadian Food Inspection Agency Notice](#) Packer and grower registration deadline was **February 14**.

Berry research blogs

- [Strawberries and Caneberries](#) by Mark Bolda, UC Davis Berry Extension Agent. **Recent Entry: (2/20) Strawberry Disorders: Identification & Management** *Reports on recent insect and disease research and observations in California.*
- [Team Rubus](#) by Gina Fernandez, North Carolina State Small Fruit Specialist. **Recent Entry: (2/17) 2016 Scientific study review reveals health promoting potential of red raspberries** *Reports on issues in blackberries and raspberries from the Southeast*

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 generated from data from the USDA Agricultural Marketing Service. Hosted by the California Strawberry Commission.*
- [Weekly Market Report from General Produce](#)
- [Weekly Chilean Blueberry Committee Crop & Exports Report](#)
- [USDA Market News \(Fruits & Vegetables\)](#)

Magazine/website compilations

- **Fresh Plaza:** [fruit](#)
- **The Packer:** [blueberries](#), [blackberries](#), [raspberries](#), [strawberries](#).
- **Growing Produce:** [recent berry articles](#).
- **Andnowyouknow.com:** [blueberries](#), [blackberries](#), [raspberries](#), [strawberries](#).
- **Fruitnet-Eurofruit:** [recent berry articles](#).
- **Fresh Fruit Portal:** [blueberries](#), [blackberries](#), [raspberries](#), [strawberries](#).

Commissions/Councils

- [U.S. Highbush Blueberry Council seeks nominees](#) (2/16, The Packer)

Weather/Climate

- [Rain, snow head for California after days of record heat](#) (2/17, Capital Press)

Labor

- [Dept. of Labor backup will delay H-2A workers](#) (2/18, Fruit Grower News)
- Oregon: [House passes 3-tiered minimum wage](#) (2/18, Capital Press)
- Oregon: [Oregon leading national debate on minimum wage](#) (2/18, Capital Press)
- [Federal Court affirms U.S. Labor Dept finding that tri-cities blueberry farms unfairly paid workers](#) (2/19, D.O.L. Press Release))
- Washington: [Rest break, bonus pay still disputed in Washington](#) (2/19, Capital Press)

Pollinators

- [High tech tool allows for bee hive health check](#) (2/16, Western Farmer-Stockman)
- [USDA research ID's factors contributing to honeybee queen failures](#) (2/16, Growing Produce)
- [Washington looks at modest bee forage experiment](#) (2/22, Capital Press)

Food Safety

- [FDA grant establishes regional centers for food safety training](#) (2/18, Fruit Grower News)

Organics

- [USDA expands insurance options for transition to certified organic](#) (2/18, Fruit Grower News)

North America

- [El Nino causing concern for Florida Blueberry Crop](#) (2/19, Growing Produce)
- [Florida blueberry growers hear about retail marketing challenges](#) (2/18, The Packer)
- [Strawberry supplies remain a dicey situation](#) (2/17, The Packer)
- [Florida spotlights strawberry breeding program](#) (2/17, The Packer)

International

- China: [Cold chain logistics drove fruit sales up during Chinese New Year](#) (2/23, Fresh Plaza)



Usual March Pest Management

In most years activities involving the management of the following pests happen during March. They're associated with the warming temperatures and renewed plant growth.

Insects/Mites

- [Raspberry Crown Borer](#) **caneberries**: If you've had borer problems in the past, March is the time to drench for crown borer management in caneberries.
- [Strawberry Crown Moth](#) **southern caneberries**: In Oregon and Southwest Washington, this borer looks to do as much, if not more, damage in caneberries as the Raspberry Crown Borer. The treatment is the same as for RCB- a spring (or fall) insecticide drench.
- [Clay Colored Weevils](#) **southern strawberries**: This early emerging species is usually just considered a pest of raspberries in northern growing areas where it feeds on newly emerging shoots and buds. But in the last few years emerged adult Clay Colored Weevils have been recovered from SW Washington southern strawberry fields and blueberry fields.
- [Redberry Mite](#) **evergreen blackberries**: Dormant sprays of lime/sulfur or elemental sulfur for Blackberry Rust and Redberry Mite are recommended in March.

Diseases

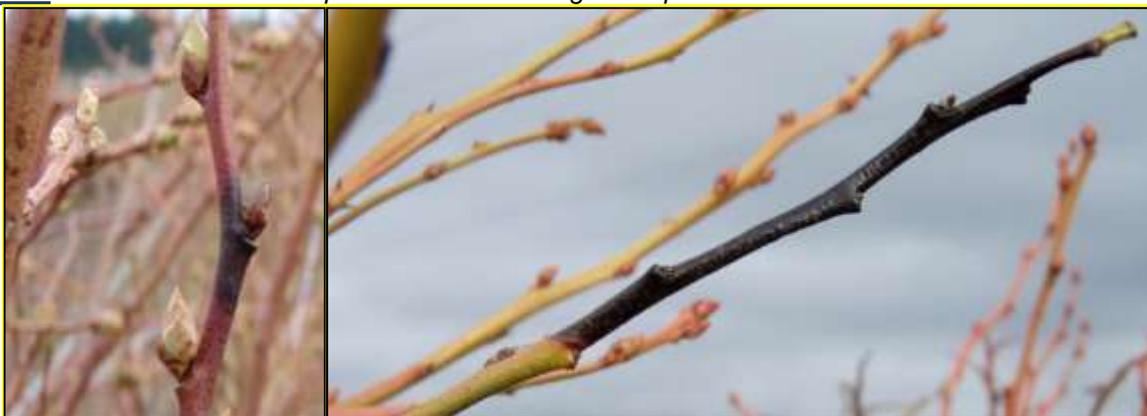
- [Phytophthora Root Rot](#) **raspberries**: March is the time to use a fungicide drench in raspberries. Warm, saturated soils are the conditions that favor this organism, allowing it to spread quickly.

- **[Blackberry Rust \(Phragmidium Rust\) Evergreen blackberries](#)**: Dormant spray of lime/sulfur or elemental sulfur for Blackberry Rust and Redberry Mites is recommended in March to prevent later problems.
- **[Cane Blight raspberries](#)**: A good time to spot symptoms of cane blight is as the buds break. Infected canes will show either no bud break if the cane has been girdled or one-sided bud break if the infection is on one side. Scrape canes to look for rust colored streaks usually coming up from machine harvester scars. There is no treatment for cane blight once it's present, only prevention. The time to prevent next year's canes from getting infected is to apply an appropriate fungicide immediately after harvest when fresh wounds normally become infected.
- **[Purple Blotch blackberries](#)**: Check for cane lesions that are easy to see as the weather warms but the foliage has not yet emerged. It's a good time to assess disease level.

Pest Management Information

[Bacterial Blight](#) (*Pseudomonas syringae*), blueberries.

- **[Click here](#)** for a PCM Research Update on bacterial blight first posted on 1/3/13.



Pseudomonas syringae (bacterial canker) symptoms in blueberries

- February is bringing warm spells that are causing blueberry buds to start swelling.
- These swelling buds are vulnerable to infection by the ever present bacteria, *Pseudomonas syringae*, especially during warm, wet weather.
- Once infected, those buds are vulnerable to subsequent freeze damage at a higher temperature than buds that aren't infected.
- If warm, wet weather is predicted, applications of copper can help prevent *Pseudomonas* infections
- **Caution:** Many strains of this bacteria are resistant to copper compounds. Avoid over applying to help minimize resistance.

Starling management

- Right now starlings are starting to think about fledging (*you know they are...*). Population control becomes very difficult once that starts because they multiply rapidly. This is a major pest species that needs year round management attention.
 - [Click here](#) for a starling fact sheet.
 - [Click here](#) for a starling nesting fact sheet.

Berry Event Calendar

Commission Meetings

- **February 24 — Oregon Strawberry Commission meeting** ~ Committee meetings start at 10, Regular meeting noon, McMenamins Restaurant - 310 NE Evans St, McMinnville. Contact: berries@oregon-berries.com

- **March 15 — Oregon Blueberry Commission meeting** ~ Noon at the Chemeketa Events at Winema, Building 48, Room 210, Salem. Email jenny@ostlund.com for more information.
- **April 26 — Oregon Blueberry Commission meeting** ~ Noon at the Chemeketa Events at Winema, Building 48, Room 210, Salem. Email jenny@ostlund.com for more information.

National Berry Events

- **March 1-4 — 2016 North American Raspberry & Blackberry Conference** ~ Williamsburg, Virginia. [Go here](#) for all the details.
- **March 2-4 — North American Blueberry Council & US Highbush Blueberry Council Spring meetings** ~ Dallas, Texas. [Go here](#) for the draft agenda. Go here for more information: [U.S. Highbush Blueberry Council website](#).

Nutrient Management

We're getting into a traditional time for applying fertilizer. Many growers still apply the first blueberry application just before the buds break. Research has shown that the plant takes up very little nitrogen before late April. Recommended timing for split applications in the Willamette Valley is 1/3 in late April, 1/3 in mid-May and 1/3 in mid-June.

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

Oregon State Extension Field Day Dates

Put the following dates on your calendar for the field days at Oregon State University's North Willamette Research and Extension Center this year.

- **June 8 — Strawberry Open House, 1:00 pm**
 - **June 29 — Caneberry Field Day 1:00 pm**
 - **July 6 — Blueberry Field Day 1:00 pm**
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Archived Small Fruit Updates

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

[5-SFU02-03-16](#)

[6-SFU02-10-16](#)

[7-SFU02-17-16](#)