

# 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.

March 2, 2016

Week 9

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- [Blueberry industry expanding worldwide, warning signs for growers](#) (2/23, The Blue Wave)
- Florida: [Citrus woes, climate create opening for blueberries](#) (2/29, Tampa Tribune)

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

## Heightened Risk of Mummy Berry Disease Infections in Blueberries this Week

- We've got a stretch of wet and mild weather at the same time that blueberries are moving into green tip stage and mummy berries on the ground are beginning to put out spores.
- These are perfect conditions for disease infections.
- So if your field's are at risk, make every effort to protect them!
- **New Mummy Berry Resources:**
  - **From WSU:** [Go Here](#) For a detailed, illustrated, variety-specific mummy berry status report. This new and improved resource for mummyberry and plant status is available thanks to [Dalphy Hartevelde](#) ( WSU plant pathology post doc at the Mt. Vernon Station).
  - **From OSU:** We've also got Jay Pscheidt and Florence Jade's recent OSU publication: [Mummy Berry Management in the Pacific Northwest](#) (July, 2015)

## 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](#)

## 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.



### Upcoming workshops for growers

- **March 9 — 11th Annual 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](mailto:anna@peerbolt.com)**
- **March 16 — Water Talks**
  - 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.
- **New Posting: April 12 — Spotted Wing Drosophila Webinar**
  - 10-11:30 am with Dr. Amy Dreves, OSU Entomologist.
  - [Go here](#) for registration, contacts & agenda information.
  - Sponsored by OSU, NCAP, USDA and Spirit Mountain Community Fund.





SW Washington—soggy

## Regional Reports

### British Columbia, Fraser Valley (Saturday, 2/27)

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

*If it hadn't been for the brief frosts on three mornings during the dry days last week, I would have thought it was April... Glorious sunshine, lots of extra pruning got done, guesses as to how early we are flying all over. All in all a productive week, lots of field activity.*

- **Blueberries:** Early varieties showing blooms in cluster, too much green for dormant oil. Late varieties not nearly as advanced. Some dead twigs showing from wet winter and likely too warm, also some areas on canes with no flower clusters, but not too concerning yet. Bud and tissue counts and observations on 24 December were very good. Next count in a week.
- **Raspberries:** Elongating shoots, all but the very late varieties are now way out there too early.
- **Blackberry:** Very advanced. Vigorous growth.
- **Strawberries:** Still not much sign of life, just a bit moving, as it is on ground and the frosts at night are holding them back, which is a good thing.

### British Columbia, Fraser Valley (Monday, 2/29)

- **Blueberries:** The response to last week's warm weather in the Fraser valley appears to have manifested itself in some pretty significant plant response. Shoot development on Duke, Draper, Bluecrop, Reka has really pushed over the weekend. Serious mummyberry spraying should start now through this week if possible. The big glitch will be the weather. Looks to be wet and mild with few breaks to get any serious spray work done. We're hoping the weather prognosis is wrong. But the outlook for the early half of March is not encouraging. So spray intervals may have to be short. Unfortunately, there are still guys pruning which further complicates things.
- **Raspberries:** Raspberries continue to move along with early leaves showing on Chemainus and Rudi. Meeker just about ready to bust out. Weed control going on and some continuing lime sulphur applications.

### Eastern Washington (Saturday, 2/27)

- **Blueberries:** 64 F here today. Blueberry flower buds really pushing. No leaf buds pushing green yet. Just a few lygus. Dry and windy days

### Western Oregon, Willamette Valley (Tuesday, 3/1)

- **Blueberries:** Wet and mild. There won't be much field work getting done this week. Seems like development slowed down a bit this last week. Hopefully be able to get an application on for mummy berry prevention. We're definitely at green tip stage.

## 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 – 2/26/16 Middle – 2/19/16 Bottom – 2/27/15

**Patriot**

**Bluejay**

**Duke**

**Draper**

**Liberty**



Week 8, 2016 (2/26/16)



Week 7, 2016 (2/19/16)



Week 9, 2015 (2/27/15)

**Patriot**

**Bluejay**

**Duke**

**Draper**

**Liberty**

## Grower Resources

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- [Researchers progress in fight against Brown Marmorated Stink Bug](#) (2/29, Fruit Grower News)
- [Tips to step up your strawberry nutrient management plan](#) (2/27, Growing Produce)
- [British strawberry growers tackle Western Flower Trips](#) (2/24, Fresh Plaza)

### 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](http://www.eXtension.org))



## Industry news/resources

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### 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](#).
- **Fresh Fruit Portal:** [blueberries](#), [blackberries](#), [raspberries](#), [strawberries](#).

### Water

- [California ag water woes alive and kicking despite El Nino. Is policy to blame?](#) (2/16, Fresh Fruit Portal)
- [California groundwater crisis crisis burdens, opportunities for growers](#) (2/25, Capital Press)

### Labor

- [Oregon wage hike will have big impact on ag](#) (2/24, Capital Press)
- [Company offers containerized farmworker housing](#) (2/26, Capital Press)

### Technology

- [New nests on the horizon for hawk-shaped Spanish drones](#) (2/22, Fresh Fruit Portal)
- [Rule-making process for public drone flights started](#) (2/25, Ag-Professional)
- [Ensuring data privacy in agriculture](#) (2/16, Precision Ag)
- [USDA honors "Innovation Challenge" winners](#) (2/28, Growing Produce)

### Pollinators

- [U.N. report says humans must change behavior to save bees](#) (2/29, Ag Professional)
- [Oregon researchers look at bee diets, see value in nutrition](#) (2/25, Farmer-Stckman)
- Decline in bee populations is putting global food industry at risk (2/26, Fortune)

### North America

- [Easter berry supplies should be plentiful](#) (2/24, The Packer)
- [Southeast could bring higher blueberry volumes](#) (2/26, The Packer)
- [Florida blueberry volume should be small](#) (2/26, The Packer)
- [Georgia expected to harvest smaller volume](#) (2/26, The Packer)
- [North Carolina sources anticipate normal blueberry season](#) (2/26, The Packer)
- [SE state blueberry organizations to promote their spring fruit](#) (2/26, The Packer)
- [May a key merchandising month for blueberries](#) (2/26, The Packer)
- [Southeast berries business updates](#) (2/26, The Packer)

### International

- Argentina: [Obama bans products made by slave labor](#) (2/29, Fresh Plaza) *The list includes blueberries from Argentina.*
- Peru: [Peruvian blueberry exports tripled in 2015](#) (2/26, Fresh Plaza)



## Usual March Pest Management

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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

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**[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

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### Commission Meetings

- **March 15 — Oregon Blueberry Commission meeting** ~ Noon at the Chemeketa Events at Winema, Building 48, Room 210, Salem. Email [jenny@ostlund.com](mailto: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](mailto: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

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*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.](#))

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

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

[8-SFU02-24-16](#)