

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.

March 11, 2014

Week 11

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- [Mexico's berry production complies with China's rules](#) (3/11, Fresh Fruit Portal) "...a representative from Mexican berry association Aneberries said the industry was hopeful to gain Chinese market access for blackberries in October...Mexico could gain Chinese market access for blueberries in 2015."
- [California Strawberry Commission's Annual Acreage Survey](#)
- [New blueberry growing system could help improve efficiency](#) (3/7, Growing Produce)

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

We're into a critical period in mummyberry disease management in blueberries. The main disease infection factors are coming together:

- Most fields are at or beyond vegetative bud green tip stage.
- The optimum temperature for spore release and infection is 50 to 57°F (10 to 14°C). Figure that you're in the danger zone when temperatures go over 45F.
- At least 12 hours of wetness is required for infection. Yes—I think we qualify for that one.

This can be a very difficult time to get and keep the preventative fungicides in place on that vulnerable tissue but if it isn't done now you could be dealing with the consequences during harvest with infected fruit. Use whatever weather windows you get and then maintain a consistent management program until the end of bloom. Once it gets a foot hold this can be a devastating disease.

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](#)

Blueberry Disease Alert

Mummyberry (blueberries)- Time to be in prevention mode! In fields with a history of mummyberry and at green tip stage, 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.

- **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](#)



Mummyberry Apothecia are now present and releasing infective spores in many regional blueberry fields.

Regional reports

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

- **All berries** (Thursday, 3/6): We're just done with the second major dump of snow, all melting away in heavy rain, all creeks running high and lakes on fields, not a chance to do any field work. Plants have stopped moving along. Much warmer temperatures ahead, likely to see fast growth by this coming week. Root growth commencing, saturated soils, not a good combination for active root development. Will need to give plants help to recover the root systems.
- **Blueberries** (Thursday, 3/6): In Abbotsford area Duke buds swollen and starting to crack. Bluecrop and Reka still fairly tight. A bit early for mummyberry sprays for us as buds not at infectable stage yet. Hanging out on back deck and finishing pruning as bushes float by... Ditches close to top.

Northern Washington, Whatcom County (Thursday, 3/6)

- **Blueberries:** Me, worried about mummyberry? Under these conditions, I'm sure the apothecia will drown. Unless they have gone anaerobic (*Just kidding, of course*). Not a good situation. Many fields in need of cover applications, but not going to happen anytime soon. Not sure if I should worry, but animals are gathering two by two at the end of the road. Worst of all, I need to make more blueberry wine, we are ALL OUT. Oh...one more thing. Does anyone have a float-a-boat repair kit they could spare? That's it from swamp-haven farms

Northern Washington, Skagit County (Thursday, 3/6)

- **Blueberries:** We have seen apothecia emerging here in Skagit. And we can't get into the fields either....



Blueberry field, Skagit County, 3/6/14 (Photo by Charlie Anderson)

Western Oregon, Willamette Valley (Friday, 3/7)

- **Blackberries:** Still no obvious signs of cold damage in the blackberries. All the mid-season varieties are starting to move. Sun out today, very wet but did see sulfur going on Black Diamonds, at least on the fields with no standing water. Hoping for the promised dry weather next week.



Black Diamond pictures, top -- March 4, 2013 / bottom -- March 7, 2014. Both are from the same field. (Photos by Bill Dinger)

Meet Dr. Lisa Wasko DeVetter, our New WSU Berry Crop Specialist

Our new Washington State University (WSU) berry crop specialist, Lisa Wasko DeVetter has arrived! Lisa is originally from Iowa, where she earned her BS and MS in horticulture, soil science, and biology at Iowa State University. She recently completed her PhD at the University of Wisconsin-Madison and studied yield components, bud development, and return bloom in cranberry.

- **New meeting posting: Monday, March 31 — Open House, Meet & Greet for Lisa Wasko DeVetter ~ 10 AM to 1 PM, Washington Red Raspberry Commission office, 1796 Front Street, Lynden.**
- Share your perspectives about berry production in the PNW.
- Dr. DeVetter's goal is, as she states, "developing a high-impact research and extension program to benefit you!"
- Feel free to contact Lisa at any time. She'd appreciate hearing from you (contact info on next page).

- **Lisa Wasko DeVetter**, Assistant Professor, Berry Crops, WSU Mount Vernon NWREC, Mount Vernon, WA 98273 **E-mail:** lisa.devetter@wsu.edu, **Office:** 360-848-6124, **Cell:** 515-480-0383

Blueberry 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).

Late winter/early 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:
 - **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

- [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)

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MRL Update

Acramite (Bifenazate) , miticide, raspberries.

This is great news for raspberry exporters who have been very limited in miticide options because of MRL standards in the importing country.

- Japan has established a new MRL for bifenazate on imported red and black raspberries of 7 ppm. Effective immediately.
- The U.S. MRL is 5 ppm.

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.
- [The Source](#) (3/10) Marketing report from The Produce News.
- [Export Market News](#) (3/7) Marketing report from The Central Produce Company.

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: 3/8—Banana industry under pressure, implies a huge plus for berry growers** Reports on recent insect and disease research and observations in California.
- [Team Rubus](#) by Gina Fernandez, North Carolina State Small Fruit Specialist. **Recent entry: 3/5—Organic Blackberry Production Webinar** Reports on issues in blackberries and raspberries from the Southeast.

Water/Climate

- Oregon: [February was wet in Oregon, but not wet enough](#) (3/4, Capital Press)
- [El Nino could strike as early as summer—U.S. forecaster](#) (3/6, Reuters)

Technology/equipment

- [Averitt to use 'cold box' to expand refrigerated LTL trucking](#) (3/6, Food Logistics)
- [Food safety goes digital with time-temperature sensor](#) (3/10, Food Quality News)
- [Judge strikes down FAA authority over UAS \(unmanned aerial systems\) operations](#) (3/7, Precision Ag)
Could speed up use of drones in agriculture.

Pollination

- [USDA announces funding for pollinator health](#) (2/25, Fruit Grower News)

Marketing/Nutrition

- [4 Things to look for in the frozen food section](#) (3/6, Health) Related story from 10/17/13: [5 Reasons this nutritionist buys frozen fruits and veggies](#)

Regulatory Agencies

- [Proposed irrigation water standards under FSMA](#) (2/28, MSU)
- [FDA sets meeting, extends deadline on FSMA proposal](#) (FDA Press Release) A webcast public meeting is scheduled for April 4.

Pesticides

- [USDA says pesticide data show no food safety concerns](#) (3/10, Food Safety News)

Research

- [Strawberry compounds could boost foods' sweetness without sugar](#) (3/7, Food Navigator)

Breeding/Varieties/Intellectual Property

- [FFSP authorizes cultivation of Florida blueberry varieties in Spain](#) (3-6-14)

North America

- Michigan: [Winter weather update for 2013-2014](#) (3/7, MSU Extension)
- Florida: [Experts say Florida's blueberry production may reach 25 million pounds](#) (3/10, The Produce News)
- Georgia: [UGA Blueberry Blog](#)

International

(FFP=Fresh Fruit Portal)

- Mexico: [International Blueberry Organization holds summit](#) (3/10, The Packer)
- Mexico: [Michoacán will export berries to the Chinese market](#) (3/10, Fresh Plaza)

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Pseudomonas syringae (bacterial canker) symptoms in blueberries

Crop Work/Pest Management Activities

Week 11

All crops

- **Weed management.**
- **Scout for and plan for Voles: *Baits cannot be used after bud break.*** Vole activity is apparent in many blueberry, caneberry, and strawberry fields. Management of voles is most effective in the spring before they start multiplying like...voles. Kind of like weeds (and starlings)—get them before their reproduction cycle kicks in! [Click here](#) for some background and biology information on voles (or meadow mice). [Click here](#) for information on how to construct bait stations.

Blueberries

- **Alert: Mummyberry (blueberries)** Treat for mummyberry as needed.
- Scout for bud damage & determine cause.
- Dormant oil can be applied for scale and winter moth egg control before bud break.
- Can apply Bacterial Blight (*Pseudomonas*) management materials.
- **Scout for Pseudomonas (Bacterial Blight)** Water-soaked lesions usually appear in February in some fields that then develop into reddish brown to black cankers.
 - [Click here](#) for a *PCM Research Update on bacterial blight first posted on 1/3/13.*
- **Plan for Bird issues: Starling management:** Right now starlings are beginning to fledge. Population control becomes very difficult later into the season because they multiply rapidly. This is a major pest species — plan your control strategy now.
 - [European starlings and their control](#) (Cornell University)
 - [Starling population control methods.](#)(Wild Wing Company)
- **Winter Moth/ Bruce Span Worm blueberries:** Scouting for winter moth larvae should start as soon as the buds start swelling. We've had reports in previous years of problems beginning this early but it's usually in a couple of weeks. More of an ongoing issue in the northern growing regions but also an occasional, locally severe problem in some Oregon and SW Washington fields.
- **Scale:** A dormant oil or Esteem (pyriproxyfen) can be used while blueberries are dormant.

Blackberries

- Scout for [purple blotch](#) lesions in Marion berries to assess field disease levels for later treatments.
- Can apply lime sulfur for [redberry mite](#) and/or disease management.

Raspberries

- Can apply lime sulfur for disease management.
- Scout for [cane blight](#) symptoms as buds break.

Strawberries

- As plants start to grow, watch for weak growing areas and check rots for weevil larvae, root rot and/or cold damage.

Usual March Pest Management

In most years activities involving the management of the following pests happens 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.

Food Safety Meetings

OR Blueberry, Strawberry, and Raspberry & Blackberry Commissions

Free Food Safety "Train the Trainers" Workshops—3 hour program

[Click here](#) for all the information and to sign up

- **March 12** — Woodburn Fertilizer/Wilbur-Ellis, Woodburn
- **March 14** — Riverbend Organic Farm, Jefferson
- **March 19** — HBF International, McMinnville
- **New: March 21** — FOOD for Lane County, Eugene
- **March 27** — Columbia Gorge CC, The Dalles
- **March 28** — Pine Grove Grange, Hood River
- **April 3** — Fairview Grange, Tillamook
- **April 4** — Lincoln City Cultural Center, Lincoln City
- **New: April 16** — OSU Seafood Research & Education Center in Astoria
- **April 23** — Unger Farm Store, Cornelius
- **April 25** — Santo Community Center, Medford

Event Calendar

- **March 13** — eXtension Webinar on Organic Blackberry Production Research ~ 11 am. Bernadine Strik & Dave Bryla presenting. [Click here](#) for details and registration information.
- **March 14** — **Korea Export Market Registration Deadline for OR Blueberries.** [Click here](#) for more information.

- **March 14 — WSU Whatcom Extension Drip Irrigation Workshop** ~ 10 - 2:30, at WaterTec, 177 Birch Bay Road, Lynden. [Click here](#) for information. [Click here](#) to register.
- **March 18 — Oregon Blueberry Commission** ~ 12 pm (Budget Preparation), at Chemeketa Events at Winema, Building 48, Room 210. Contact Bryan Ostlund for more information at 503-364-2944 or bryan@ostlund.com
- **March 18—Wage & Hour Compliance for Berry Growers** ~ 10:30 – 3:00 at Papa Pete’s Pizza. 109 S. 65th Avenue, Ridgefield, WA. *Put on by Manny Lopez (American Business League), a former agent for the Federal Department of Labor, “Attendees will receive an in depth training of wage and hour regulations and proper record keeping. They will learn how to prepare for and navigate a Department of Labor audit to minimize its effect on business.” \$300 per company/\$200 per individual.* [Click here](#) for more information. [Click here](#) to RSVP or call 541-868-6371.
- **March 19 — Oregon Raspberry & Blackberry Commission meeting** ~ Committee meetings start at 9 am. Regular meeting at 12. At Langdon Farms Golf Club. Call 541-758-4043 or [email Phillip Gutt](mailto:Phillip.Gutt@langdonfarms.com) for more information.
- **New meeting posting: Monday, March 31 — Open House, Meet & Greet for Lisa Wasko DeVetter** ~ 10 AM to 1 PM, Washington Red Raspberry Commission office, 1796 Front Street, Lynden.
- **New meeting posting: April 2-3 — Oregon Precision Farming Expo** ~ Evergreen Aviation and Space Museum, McMinnville, OR. [Click here](#) for information and tickets. *Unmanned systems, robotics, ag drones, data systems, automation, remote sensing, oh boy!*
- **April 3 — Oregon Strawberry Commission meeting.** Committee meetings start at 4:30. Regular meeting at 6. At Langdon Farms Golf Club. [Click here](#) for the agenda. Call 541-758-4043 or [email Phillip Gutt](mailto:Phillip.Gutt@langdonfarms.com) for more information.
- **April 7- 9 — Global Berry Congress** ~ in Amsterdam. [Click here](#) for the conference's information page and registration.
- **April 9 — Washington Red Raspberry Commission** ~ Board meeting in Puyallup. [Contact Henry Bierlink](mailto:Henry.Bierlink@wrc.wa.gov) for more information.
- **April 29 — Oregon Blueberry Commission** ~ 12 pm (Budget Hearing), at Chemeketa Events at Winema, Building 48, Room 210. Contact Bryan Ostlund for more information at 503-364-2944 or bryan@ostlund.com.
- **May 11-13 — International Raspberry Organization** ~ Chuzhou, China. [Contact Henry Bierlink](mailto:Henry.Bierlink@wrc.wa.gov) for more information.
- **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: June 11 — OSU Strawberry Open House** ~ 1:00-4:30pm North [Willamette Research and Extension Center](#) (NWREC) *A focus on the breeding program & research for commercial growers. Details TBA.*
- **New Posting: July 9 — OSU Caneberry 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.*
- **New Posting: 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.*

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Archived Small Fruit Updates

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

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