

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 19, 2013

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[Labor officials stand behind 'hot goods' orders](#)

(3/18, Capital Press)

[Federal food safety proposals raise concern, criticism locally](#)

(3/15, Yakima Herald)

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

Last week brought weather extremes just within the region.

In the north, the Fraser and Skagit river valleys got pounded by rain and wind and are dealing with inaccessible fields with warming, saturated soils.

In the south, the Willamette Valley was pretty dry with relatively warm weather and is, as a contributor points out below, "nine inches behind normal rainfall from January 1st and three inches behind from October 1st".

Tom Peerbolt, SFU Editor

Regional Crop Information

Disease Alerts

All Areas: [Mummyberry](#) blueberries Time to be in prevention mode! In fields with a history of mummyberry and at green tip or beyond 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](#)
 - **Some critical points:**

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](#)

- The optimum temperature for spore release and infection is 50 to 57°F (10 to 14°C). Figure on when temperatures go over 45°F in our area you're into the danger zone.
- About 12 hours of wetness is required for infection. If temperatures are warmer, leaf wetness time required is less.

Frost may increase susceptibility of blueberry shoots to infection.



Mummyberry apothecia, Willamette Valley blueberry field (photos by Tom Peerbolt)

Mummyberry information for B.C. Growers: [Blueberry IPM Newsletter](#) (3/14) Compiled by Caroline Teasdale, [E.S. Cropconsult](#), for the BC Blueberry Council. Contains regional bud stages, photos & grower treatment recommendations with fungicide options.

Northern areas: [Phytophthora Root Rot](#) raspberries & blueberries: As the soils warm and the heavy rains continue, conditions are ideal for the spores of *Phytophthora* to spread from plant to plant. All precautions should be taken to inhibit the disease in fields at risk with soil drenches of Ridomil and doing whatever you can to keep roots out of the saturated soil zone.

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 (Sunday, 3/17)

I had the first positives for phytophthora root rot confirmed by the lab, ideal conditions for that in the soil right now, if the roots are not dying from being flooded. Plants have stopped doing anything. Sun, when it does come out, is powerful and high in the sky already, so as soon as temps go up we will move along very fast.

- **Blueberries & raspberries:** A very difficult past week with mild and very wet weather continuing (another 5 inches). Field conditions are poor and it's hard to put a continuous work period together to get anything done. Today we've had rain, high wind, hail and sunshine and a big drop in air temperature. Lovely. How's your day going? We should be at mummyberry sprays full on this week if we can get in to do it. I've seen a lot of early snail activity in the caneberreries. Could be a big year for these and slugs in the machine pick fields. We may have to look at some early baiting.

Whatcom County, Northern Washington

We've been having wind, rain, and showers mixed with showers, rain, and wind. Hard to get much done.

- **Blueberries:** (Friday, 3/15) Blueberries real close to mummyberry spray time, we have been in the high 50's a couple times and the leaf buds are pushing. Lots of weed spray already done.
- **Raspberries:** (Friday, 3/15) Got a few acres of raspberries planted Sat/Sun, and the herbicide got washed in real well. Still finishing with the raspberry tying, and lime sulfur applications are in full swing. New shoots are pushing in the younger fields.
- **Strawberries:** (Friday, 3/15) nuthin.

Skagit County, Northern Washington

Everything is soaked here, sprayers making deep ruts in fields.

- **Blueberries:** (Friday, 3/15) Blueberry buds in Skagit are very loose, both vegetative and leaf. Can see an occasional bloom, but nothing to speak of. With the relatively warm soil temps we have right now (about 47 degrees), I think they will move pretty quickly. Starting to look for winter moth, but I don't see a lot of these yet.
- **Raspberries:** (Friday, 3/15) Raspberry floricanes buds loosening at tip, and there are a few adventuresome primocanes just poking up out of the ground.

Willamette Valley, Oregon and SW Washington

It's been dry & warm here. With this nice stretch of weather there's no excuse not to be getting things done in the field. We are nine inches behind normal rainfall from January 1st and three inches behind from October 1st.

- **Blackberries:** (Friday, 3/15) First shot of sulfur should be on the early blacks and either on or thinking about it for the late ones. Herbicides going on, some fertilizer, drenching for crown borer too. I am sure they are out there but have yet to see a bad looking field.

Blackberry bud development—Central Willamette Valley 3-15-13 *(photos by Bill Dinger)*



Marionberry



Black Diamond

- **Blueberries:** (Friday, 3/15) The nice weather this past week has got the blueberry buds pushing more. We got up to 66 degrees Wednesday and the rest of the week was in the upper 50s or low 60s. We didn't need to run the frost fans. Scouting for mummy berry apothecia.....haven't found any yet. We are making preventative biological fungicide applications anticipating them to start popping up soon. With the periods of rain and mid 50 degree weather forecasted they will be showing up soon.

Blueberry bud development—Western Willamette Valley 3-15-13 (photos by Tom Peerbolt)



Duke

Draper

Legacy

Patriot

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 pink bud:** “Expanding flowers are readily visible and have separated. The pink corolla tubes (petals) are short and closed. This bud stage can tolerate 23 to 25°F (-5 to -4°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)

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)

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Food Safety Events

Washington Food Safety Training Offered

by the Washington Blueberry & Red Raspberry commissions

- [Click here](#) for a detailed information sheet.
- Class is free of charge but RSVP is required.
- **Remaining dates & locations:**
 - **March 20** WSU-Clark County Extension – 1919 NE 78th St., Vancouver, WA

- **March 27** WSU-NWREC – 16650 Highway 536, Mt. Vernon
- **March 28** NW WA Fairgrounds, Rotary Building – 1775 Front Street, Lynden
- Buyers of Washington berries and berry products are increasingly requiring growers be third party certified to meet minimum requirements for food safety.
- The minimum standard for this is GAP (Good Agricultural Practices).
- It is very likely that new federal legislation will require growers to implement these standards soon.
- In order to help you meet these new standards the Washington Blueberry and Red Raspberry commissions will host a series of food safety meetings around the state.
- The training will have capabilities for a Spanish translation for employees and Punjabi at the Lynden location.

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:**
 - **April 4** North Willamette Research Extension Center – 15210 NE Miley Rd., Aurora
 - **April 9** Unger Farm Store – 34880 SW Johnson School Rd, Cornelius
 - **April 18** Woodburn Fertilizer – 868 N Front Street, Woodburn
 - **April 23** Scenic Fruit Co. – 7510 SE Altman Rd., Gresham
 - **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

FDA Informational Workshops on the Proposed FSMA Rules

The Food Safety Modernization Act will significantly impact growers, packers and processors in the coming years. Members of the food industry have the opportunity to submit comments to FDA on the proposed rules that will be used to regulate the food industry in the coming years. There is a need to be familiar with the proposed rules in order to submit relevant comments to FDA by the May 16, 2013 deadline. A multi-state team involving universities and regulatory agencies in partnership with FDA is offering five opportunities to review the proposed rules. FDA will be presenting information and offering input throughout the workshop.”

- [Click here](#) for the flyer with more details on the meetings.
- Cost is \$20 with a registration cutoff date of 4 days prior to the meeting date.
- **Remaining dates & locations:**
 - **April 15** WSU Snohomish County Extension, Everett, WA
 - **April 17** Unitarian Universalist Church, Eugene, OR
 - **April 19** Four Rivers Cultural Center, Ontario, OR

FDA Public Hearing in Portland on Food Safety Modernization Act

- **March 27 & 28** — 8:30-5:00, Crown Plaza, Downtown Portland Convention Center. [Click here](#) for details.
- For more information on the FMSA including factsheets [click here](#).

Related articles

- [10 things you need to know about the produce safety rule](#) (3/6, Growing Produce)
- [Teleconferences to answer industry food safety questions](#) (3/15) The Packer)
- [FDA takes food safety meetings to Chicago and Portland](#) (2/12, The Packer)
- [Stakeholders offer broad range of feedback on FSMA in first public meeting](#) (3/5, Food Safety News)

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Crop/Growing Information

- [How to grow sustainable berries](#) (3/6, Growing Produce) An article about a 'rotatable trellis system' distributed by [Trellis Growing Systems LLC](#). This is regarding using it for cold hardiness management but I think it's got a number of innovative features that could be useful for Northwest caneberry growers.

Pest Management

Insects

- [Spotted Wing Drosophila](#): [Spotted Wing Drosophila shows fruit variety preferences](#) (3/18, The Grower)

Weeds

- **Herbicide resistance:** [6 Glyphosate-resistant weeds in California](#) (3/19, Western Farm Press)

Usual March Pest Management in the Northwest

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.

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Ongoing Possible Field Management Activities

All crops

- Weed management.
- Plan fertilizer program.
- **Scout for and plan for [Voles](#)**: 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 (& 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.

Zinc Phosphide baits cannot be used after budbreak

Blueberries

- **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 [Pseudomonas \(Bacterial Blight\)](#)** Water-soaked lesions usually appear in February in some fields that then develop into reddish brown to black cankers.
- **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 problems beginning this last week. 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](#) blueberries:** 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 Mites](#) and/or disease management.
- Can drench for [crown borer](#) management.

Evergreen Blackberries

- Can apply lime/sulfur for [blackberry rust](#).

Raspberries

- Can apply lime sulfur for disease management.
- Can apply Ridomil for [Phytophthora root rot](#) management.
- Can drench for [crown borer](#) management.
- Scout for Cane Blight symptoms as buds break.

Strawberries

- Can apply pre-emergent herbicides.
- As plants start to grow, watch for weak growing areas and check rots for [weevil larvae](#), [root rot](#) and/or cold damage.

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Industry News/Resources

Newsletters/ Berry Reports

- [Michigan State Extension Blueberry News](#) (3/18)
- [The Source](#) (3/18) *Market reports from The Produce News*

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 entries: 3/13—Organic Strawberry Summit planned for 3/20; 3/14—Lygus Meeting planned for 4/18** *Reports on recent insect and disease research and observations in California.*
- [Strawberries and Vegetables](#) by Surendra Dara, UC Davis Extension Specialist. **Recent entry: 3/15—An update on the Bagrada bug.**
- [NC Blueberry Journal](#) by Bill Cline, North Carolina State Extension Specialist. **Recent entries: 3/6—Deer damage to buds; 3/5—Mummy berry emerging this week** *Reports on issues in blueberries from the Southeast.*

- [Team Rubus](#) by Gina Fernandez, North Carolina State Small Fruit Specialist. **Recent entry: 3/14—A crash course on virus disease control** *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: 2/21—What insecticides are acceptable where?** *Reports on insect issues in the Southeast.*

Pesticide Issues

- [US food safety gets thumbs up \(regarding pesticide residues\)](#) (3/18, Western Farm Press)

Breeding

- Spain: [Three early season strawberry varieties released](#) (3/19, Fresh Fruit Portal)

Marketing

- [California strawberries see excellent promotional opportunities](#) (3/13, The Produce News)
- [McDonald's adds egg whites, blueberries to menu after U.S. store sales drop](#) (3/13, Bloomberg News)

Technology

- [ScoutDoc app adds GPS mapping](#) (3/13, PrecisionAg)
- [The future is now in agricultural technologies](#) (3/14, Growing Produce)

Labor & Immigration

- [Agriculture labor reform is on the horizon](#) (3/6, Growing Produce)
- [GOP backs immigration overhaul to woo Hispanics](#) (3/18, USA Today)

West

- (Washington) [Governor Inslee names new Agriculture, Health directors](#) (3/13, The Olympian)
- [Profile on Bud Hover, the new Washington State Ag Director](#)
- [California strawberries pick up steam](#) (3/14, The Packer)

International

- [Chilean blueberry season down to less than 1,000 tons per week](#) (3/19, Fresh Plaza)
- [Chile pursues Canadian Saskatoon berry varieties](#) (3/19, Fresh Fruit Portal)
- [Blueberries most harvested soft fruit in Germany](#) (3/13, Fresh Plaza)

Event Calendar

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

- **March 20 — Washington Blueberry Commission: Workshop on Maximum Residue Levels** ~10:00 am to 3:00 pm Location TBA (in the Mt Vernon-Seattle vicinity). *An RSVP is required.* For information, please contact the Washington Blueberry Commission office abragg@centurytel.net, 509 266 4300.
- **April 10 — Washington Red Raspberry Commission** ~ Puyallup, WA. Call 360-354-8767 or [email](#) Henry Bierlink for more information.
- **April 22-23 — International Blueberry Organization's 2nd Annual Meeting** ~ Santiago, Chile. [Click here](#) for the website.
- **April 23 — Oregon Blueberry Commission** ~ Noon (budget hearing) at [Chemeteka Community College](#), Chemeketa Events at Winema, building 48, rooms 202 A and B. For more details call (503) 364-2944 or email [Lisa Ostlund](#).
- **June 18-20 — Berry Health Benefits Symposium** ~ Charlotte, North Carolina. [Click here](#) for registration and agenda information.

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Archived Small Fruit Updates

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

[SFU03-13-13](#) [SFU03-05-13](#) [SFU02-19-13](#)

This document is a guide and not intended as a recommendation or endorsement.

Consult with your supplier, field representative, or pest consultant.