



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 23, 2016

Week 12

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- [Canadian blueberries set sights on China](#) (3/11, Fresh Plaza)
- [USHBC to fund \\$1,000,000 in blueberry health studies](#) (3/22, Fresh Fruit Portal)

A couple of reports by Fresh Plaza from the Global Berry Congress:

- [End of blueberry market growth not yet in sight](#) (3/16, Fresh Plaza)
- [Back to the future: What awaits the blueberry sector?](#) (3/21, Fresh Plaza)

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

Apologies for not getting an Update out last week. Some family and technical issues took precedence. But the train is back on the tracks!

Another season is slowly moving toward the start line. While still ahead of normal in degree days, this long, cool, wet weather pattern has slowed both plant development and field work to a crawl. Only thing for certain is...it'll change.

Tom Peerbolt, SFU Editor

A recent opinion piece on the Farm Bill---

[The farm bill drove me insane](#) (3/17/16, Politico)

A quote: "If you were to create a ... meal that matched where the government historically aimed its subsidies, you'd get a lecture from your doctor.

- More than three-quarters of your plate would be taken up by a massive corn fritter (80 percent of benefits go to corn, grains and soy oil).
- You'd have a Dixie cup of milk (dairy gets 3 percent),
- A hamburger the size of a half dollar (livestock: 2 percent),
- Two peas (fruits and vegetables: 0.45 percent)
- ...and an after-dinner cigarette (tobacco: 2 percent).
- Oh, and a really big linen napkin (cotton: 13 percent) to dab your lips."

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](#)



Continuing Heightened Risk of Mummy Berry Disease Infections

- *We're still in this wet and mild weather. Blueberries are well into green tip stage and mummy berries on the ground are releasing spores.*
- *These are pretty much perfect conditions for disease infections although the cooler temperatures will work in our favor.*
- *If your fields are at risk, make every effort to protect them! Use the weather windows you can find to get preventative fungicides on.*

Mummy Berry Information Resources:

- **From WSU:** [Go Here](#) Northern Washington Mummyberry Update for the third week of March Thanks to [Dalphy Harteveld](#) (WSU plant pathology post doc at the Mt. Vernon Station).
- **From OSU:** [Mummy Berry Management in the Pacific Northwest](#) (July, 2015)
- **From Michigan State:** [Mummyberry primer](#)
- **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.



Regional Reports

British Columbia, Fraser Valley (Sunday, 3/20)

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

Plants have slowed down we are less and less early which no one minds... Long lineups at supply stores, lots of fertiliser and sprays going on. The air is ripe with manure smells. LOTS of work got done this past week. Fungal and bacterial problems of most concern now and of course drainage of lack thereof.

- **Weather:** A glorious four day dry interval coming to a close on late Sunday, then rain. Temperatures have been a lot more seasonal as well as less fierce winds, although Easterlies were blowing from the Interior Valleys while we had the sunshine. Had some close calls on frosts but outside of a few white roofs, nothing damaging to report. Rains predicted to not be too heavy except the outer coast and Vancouver Island. Temperatures to be normal for the time of year or a tad cooler, again slowing down growth.
- **Blueberries:** Flower clusters are starting to separate on early varieties. The leaves are now also pushing out. Lush growth, however so much slower now because of the cool nights
- **Raspberries:** Not much movement this week.

- **Strawberries:** Not much going on, luckily.... The cold ground and cold nights have really held them back.
- **Misc:** Late varieties of *Haskap* now in bloom. Bees on warm days have started working them. Timing is later than last year. **Black Currants** are all green already with blooms showing. **Goji** are growing actively already. There's vigorous growth on **Elderberries**. No stopping them anymore,. We're past full bloom on **peaches and nectarines**, **Olives:** Autumn Olive already has green shoots. **Figs** are breaking buds but seem to be stuck growth-wise... Now hunkering down for another five days of rain....

British Columbia, Fraser Valley (Tuesday, 3/22)

- **Blueberries:** We're have definitely slowed a bit here in the Fraser valley. I figure we are about 10 days behind last season now in the blues but poised for a breakout if the weather turns fine. Seeing some early pink bud in Reka on leader buds and even found some June's in early bloom. Lots of loose buds with floral separation on all early and mid-season varieties . Really some terrible field and weather conditions to plough through and it has meant that some are behind on mummyberry spray interval timing. Should start fertilizing towards the end of the week or early next week.

Raspberries: Raspberries appear to be moving right along with Rudi, Saanich and Chemainus pushing significant lateral development. Meeker is moving now as well. Shoot burning began towards end of last week and we'll probably start fertilizing by coming weekend.



Northern Washington, Whatcom County (Tuesday, 3/22)

- **Blueberries/raspberries:** Moderate temps have moved plant development from "super fast" to "normal". Big ruts in fields from forcing sprayers though fields that were too wet to traverse. We're still a week (more or less) behind last year's record early season with raspberry development putting it on top of blues again this year, or at least. very close.

Eastern Washington (Sunday, 3/20)

- **Blueberries:** A bit wetter than normal over here, cold nights slowing down the blues, flower clusters beginning to separate, isolated areas got below 25 last week, we don't need more of that. *Growers should have frost protection in working order just in case....!* Lots of herbicide applications going on.

Western Oregon, Willamette Valley

The weather, as in the rest of the region, remains soggy and cool. Looks like it'll be at least another week before we break out of this pattern.

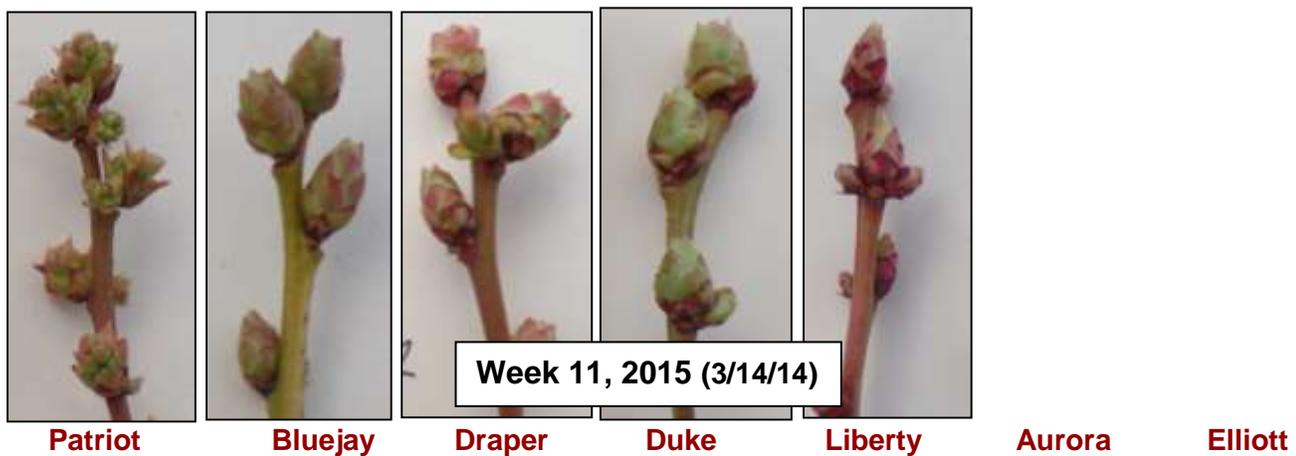
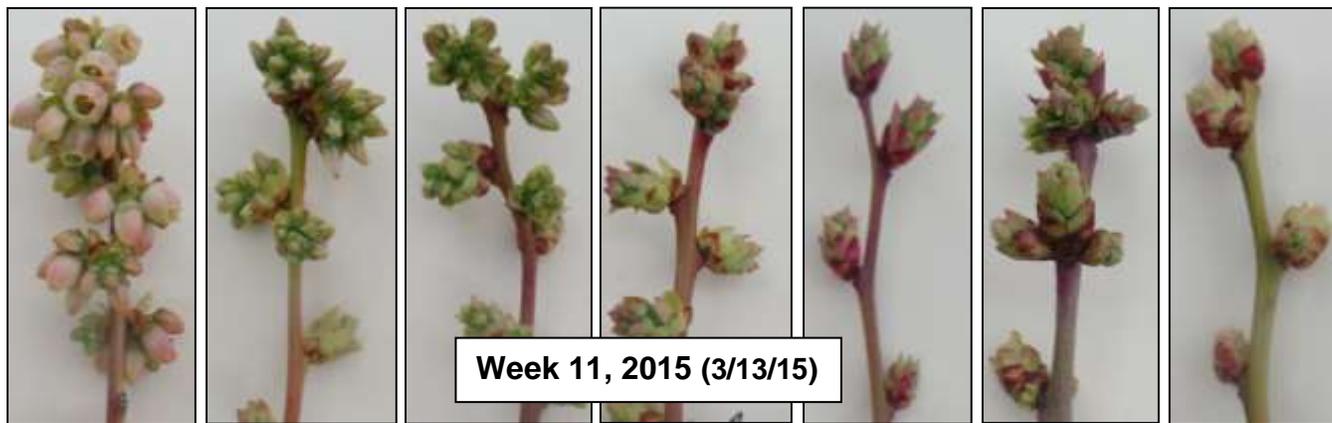
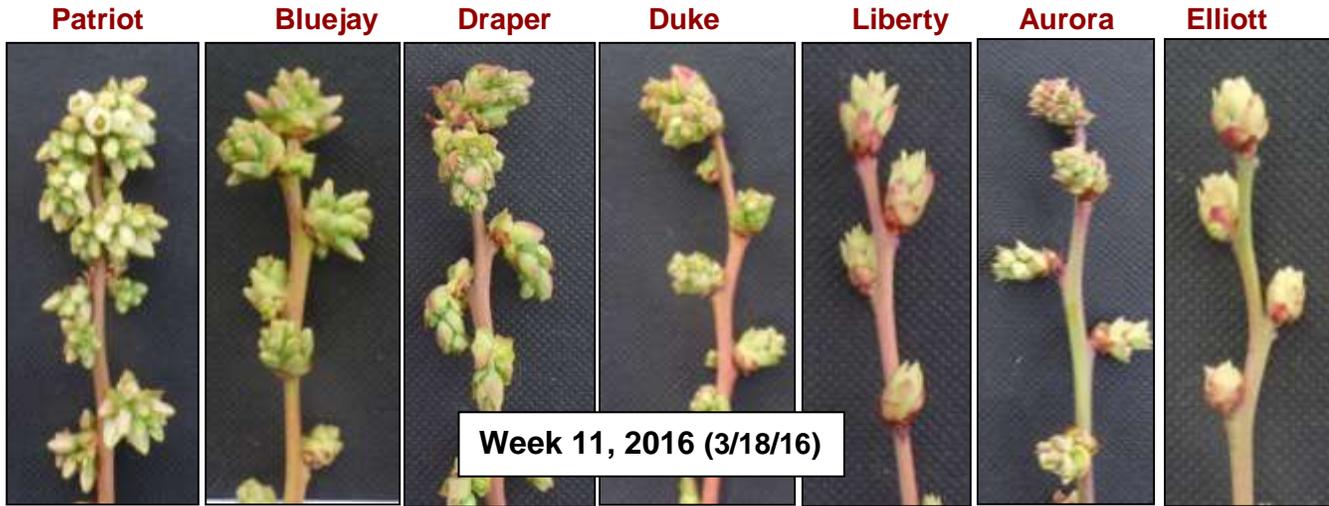
- **Blueberries:** (Monday, 3/21) Could be a lot worse but there's a lot of tractors, fertilizer spreaders and spray applicators sitting idle. I hear the aerial guys are very backed up as well. The fungicide and herbicide applications that are getting getting on are being greatly compromised as well. We're almost certain to see higher weed and fungal disease pressure down the road. Bee hives are moving in. Probably a lot of idle (and hungry) bees, too. Legacy is showing the usual early bloom. Patriot is maybe 5%. Duke—one or two percent, maybe? Depends on the field but there's nothing moving fast in this weather. Bloom sprays should start next week. At least there's no frost events likely. Low Temps have been and will likely remain above 40F (4.5C).
- **Blackberries** (Monday, 3/21) Some fertilizer and lime sulfur being applied during the break in the rain. Could use some more dry spells, hard to get much done. Growth has definitely slowed down, according to degree days we are now 7 days behind 2015, a week ago we were one day behind 2015. All the blackberries continue to look good.



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. Below are the last three years compared from the same field, close to the same date.

Northwestern Willamette Valley Top – 3/18/16 Middle – 3/13/15 Bottom – 3/14/14



Upcoming workshops for growers

- **New Posting: March 28 — WSU Extension Skagit County Blueberry Workshop**
 - 8:30-2:15 @ [WSU Skagit County Extension, Burlington](#).
 - [Go here](#) for the agenda, directions and contact information.
 - RSVP to [Don McMoran](#), 360 428-4270 x 225.
- **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.

National Processed Raspberry Council

From [Tom Krugman](#), *NPRC Executive Director*:

- The USDA is seeking nominations to the [Raspberry Council](#) for seats expiring December 31, 2016.
- At this time, there are a total of three domestic producer member and three domestic producer alternate seats (to currently held by WA growers, 1 by OR grower) up for nomination, along with importer and/or foreign producer seats.
- For anyone interested [Go here](#) for the needed information.

Commission meetings

- **March 24 — Oregon Raspberry and Blackberry Commission meeting** ~ Regular meeting starts at noon. Committee meetings start at 9:30. Hayden's Lakefront Grill, 8187 SW Tualatin-Sherwood Road, Tualatin. Contact: berries@oregon-berries.com
- **March 29 — Oregon Strawberry Commission meeting** ~ Regular meeting 6 pm, Budget committee at 5:30. McMenamins Restaurant - 310 NE Evans St, McMinnville. Contact: berries@oregon-berries.com.
- **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.



Grower Resources

- [Chafer beetle infestations could threaten B.C. crops](#) (3/12, CBC News)
- [Researchers study pest management solutions](#) (3/11, Fruit Grower News)
- [More reasons for soil testing](#) (3/11, MSU Extension)

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)

Nutrient Management

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



Industry news/resources

Berry research blogs

- [Strawberries and Caneberries](#) by Mark Bolda, UC Davis Berry Extension Agent. **Recent Entry: (3/14) A brief overview of the role of manganese in mitigating soil disease in cultivated plants including strawberry** *Reports on recent insect and disease research and observations in California.*
- [Team Rubus](#) by Gina Fernandez, North Carolina State Small Fruit Specialist. **Recent Entry: (3/8) Video of women plant and animal breeders for International Women’s Day** *Reports on issues in blackberries and raspberries from the Southeast*

Newsletters/ berry reports

- [WSU Mount Vernon March Newsletter](#) *Great article on Dr Lynell Taningoshi who just retired.*
- [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](#).



Weather/Climate

- [Reports reveal warmest winter on record for contiguous U.S.](#) (3/9, Growing Produce)
- [Northeast & Midwest growers eyeing warm temperatures](#) (3/15, Growing Produce)
- [Climate change might vary crop deck](#) (3/21, Ag Professional)
- [Spring flooding: What areas are at risk next?](#) (3/21, Ag Professional)

Water

- Oregon: [March storms restore Oregon snowpack, but that could change](#) (3/15, Capital Press)
- California: [March storms boost State Water Project allocation to 45%](#) (3/17, Capital Press)

Labor

- Oregon: Opinion:-- [Legislators ignore impact of minimum wage hike](#) (3/18, Capital Press)
- [Driscoll's exec reacts to berry boycott](#) (3/22, Fresh Plaza)

Health Research

- [Blueberries could reduce Alzheimer's risk](#) (3/18 Fresh Plaza)

Market

- [Report: Produce ranks as powerful driver of fresh sales](#) (3/16, The Packer) "...Berries are the top fruit category, accounting for \$4,250 in weekly per-store dollar sales, up 6% from 2014."
- [Monsanto said to seek crop chemicals deals with BASF, Bayer](#) (3/20, Bloomberg)

Business

- [U.S., Peru form binational blueberry council](#) (3/15, Fresh Fruit Portal)
- [Onubafruit invests one million Euro in new experimental farm](#) (Company Release)

Technology

- [Packaging solution to facilitate the export of blueberries](#) (3/22, Fresh Plaza)
- [Technology: A cold chain game changer](#) (3/10, AFFI)
- [Growers get peek at automatic apple picking machine](#) (3/18, Good Fruit Grower)

Pollinators

- [Bee hive thefts on the rise](#) (3/9, Growing Produce)
- [Two species of wild bumble bees will be considered for Endangered Species Act protection](#) (3/15, Modesto Bee)

North America

- [Florida, Georgia blueberries starting late](#) (3/21, The Packer)
- B.C.: [Blueberry growing on the rise](#) (3/14, Fresh Plaza)
- Michigan: [Michigan's blueberry industry keeps growing](#) (3/21, Fresh Plaza)
- Florida: [Ready for light blueberry season](#) (3/8, Fresh Fruit Portal)
- Florida: [Marketing opportunities for Florida's strawberries](#) (3/21, Fresh Plaza)
- [Longtime American Fruit Grower magazine contributor honored for work in berries](#) (3/15, Growing Produce) *Charlie O'Dell honored by NARBA.*

Imports

- [New U.S. food safety rules to required 'preventative controls' from exporters](#) (3/17, Fresh Fruit Portal)

International

- European Union: ["From mid-January, demand for berries already higher than supply"](#) (3/18, Fresh Plaza)
- Spain: [Great potential for blackberry production and exports](#) (3/21, Fresh Plaza)
- Australia: [Blueberry investment to improve quality, shelf life](#) (3/18, Fresh Plaza)
- Mexico: [Second stage of strawberry market about to be completed](#) (3/18, Fresh Plaza)
- Mexico: [Michoacan, world leader in berry production](#) (3/11, 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.

Starling management

- 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.
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Archived Small Fruit Updates

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

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

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

[9-SFU03-02-16](#)