

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.

April 9, 2013

Table of Contents

- [Regional Crop Information](#)
- [Food Safety Events](#)
- [Pest Management Information](#)
- [Industry News](#)
- [Event Calendar](#)

[Spray Adjuvants: What's in a name?](#) (4/3, UC Farm Advisor, Franz Niederholzer's blog) I got this link from UC Davis berry specialist [Mark Bolda's blog](#). Adjuvants are an often overlooked & not well understood topic affecting our crops.

[Everbearing Strawberries in B.C.](#)

A short, very well done, video by the Fraser Valley Strawberry Growers Association.

[Calamity for Our Most Beneficent Insect](#) (4/6, New York Times editorial) The pressure is building to 'do something' about neonicotinoids.

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

It looks like an unsettled weather week ahead. Rain, clouds, showers, sun with mild temps on the cool side.

We're into a critical period where the plant development is far enough along to be damaged by temperatures that might have been tolerated a week or two ago.

It's also a time when the wet weather prevents and/or weakens preventative fungicide applications while favoring the development of fungal pests like mummyberry, botrytis and phytophthora. Use whatever weather breaks and tools you've got to protect your crop.

Tom Peerbolt, SFU Editor

Regional Crop Information

Disease Alerts

- 1) **[Mummyberry](#)** blueberries Time to be in prevention mode! In fields with a history of mummyberry now's the time to be implementing your management program and keep it going

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](#)

as consistently as possible all the way through the end of bloom. We're still in the initial infection stage for this disease.

2) **Vector management: [Scorch virus](#)** – Areas with confirmed scorch virus present.

Blueberries, Vector (aphid) management

- From an April, 2011 B.C. Pest Alert: “Blueberry scorch virus is transmitted by aphids. An effective aphid control program should be used by all growers. *Fields should be treated before bloom with a registered aphicide to control the over-wintering aphids before they reproduce and disperse.*”
- Click on the blue link above for full information from the B.C. Ministry of Agriculture. Check with your berry management specialists, both public and private, for more specific recommendations and selection of appropriate management materials.
- You can also email the B.C. Blueberry Council's research coordinator, [Karina Sakalauskas](#) (or call her at (604) 613-2133) for information.

3) **Time to scout for: [Shock virus](#)** – southern blueberries.

- Symptoms are becoming visible in many fields in the southern areas.
- This disease is vectored by pollinators.
- There is no treatment or cure.
- Infected bushes generally display symptoms for one year and then return to productivity.



Early Shock virus symptoms in Oregon blueberries (Photos by Tom Peerbolt)

[Click here](#) to go back to the top of this newsletter.

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, 4/7)

- **Blueberries:** Fertilizer started to go out on blues this week before the rain started again. Lots of new leaf unfolding on the blues and blossoms starting to separate. Apothecia evident in the fields with a history of mummyberry. Will start our third round of mummyberry spray in some fields this week and look at pre-bloom aphicide spray as leaf area expands probably by next weekend to control the aphids that vector Scorch virus.
- **Raspberries:** Clay coloured weevil damage evident in raspberries but not like I thought I'd see after our recent 2 week warm spell. I am seeing considerable two spotted spider mite presence and egg laying right to the top of the loops. Could be an early issue for us to control this season. Fertilization is underway and shoot-burns pretty well done.

Whatcom County, Northern Washington (Friday, 4/5)

Got a lot done the last two weeks, however the rain returned Thursday and we are back to shop and paperwork duties.

- **Blueberries:** Most growers got on their 2nd round of Indar and first round of fertilizer. Flower buds starting to show and separate. Frost protection ready to go. Lots and lots of rodents.
- **Raspberries:** We did manage to get more new raspberries planted, pretty well finished the lime sulfur and put a big dent in the first round of fertilizer. No clay weevil or other critters in the raspberries right now other than rodents.
- **Strawberries:** Rows cut down and fertilized and herbicide applied just ahead of the rain.

Whatcom County, Northern Washington (Friday, 4/5)

I'll see that 24 hour, 1/4 inch of rain in the Willamette Valley and raise it 1 inch up here. We had a well needed break but it's over. We got fertilizer out to raspberry growers in the county and getting into most of the blues. It paid off for the farmers farming by weather and not by calendar.

- **Raspberries:** I've noticed a lot of cane botrytis in fields around the county. We've tried to get growers to spray higher rates lime sulfur in efforts to knock the numbers back, but still lots of overwintering fruiting bodies. Also, I have seen a few flagged leaves in the fields, but no weevils to back up the evidence. Most new raspberry plantings are finished except the Wakefields for most growers. Most are getting through their first shoot burn. Hopefully get another short break in the weather next week, so the last growers can finish. It's amazing how much happier growers are when they're working.

Skagit County, Northern Washington (Friday, 4/5)

Rain shut down Skagit yesterday as well.

- **Raspberries:** Cane burning in raspberries started this week.
- **Blueberries:** Guys have put on or are finishing the 2nd Indar application. Lots of mummyberry apothecia showing up particularly in peat ground. We have a few mummyberry trials in organic blues with Zen-o-spore Biofungicide (*Ulocladium oudemansii* U3 strain... pronunciation \$0.25/ea). We'll see how that goes. Some leafrollers are also showing up in blues. Blueberry insecticide spraying will start in earnest next week. Lots of vole activity and guys are mowing middles very short and putting out bait stations.
- **Strawberries:** Fresh market strawberries going in under plastic this week. Some growers cut in the rows, subsoiled and fertilized. Others fertilized first and moved on to planting spuds while the weather held. Some herbicide going down on straws but most have not sprayed yet.

Willamette Valley, Oregon and SW Washington

- **Blueberries:** (Monday, 4/8) In our organic production we are continuing to apply organic management materials for mummy berry every 7-10 days on susceptible varieties. With this moisture we will probably be finding more apothecia in the next few days, haven't been able to find any in the drier weather we've had to this point. Applied our first bloom spray Friday on Earliblue. Looks like Duke, Legacy and Reka will be this week. We will be including a Bt insecticide for leafrollers and wintermoth. Started to bring the bees in at the end of last week. There is a fair amount of shock virus symptoms showing in our Bluegold. So far I have not found much frost damage.

Willamette Valley, Oregon and SW Washington

Degree days as measured at Salem airport indicate we are 11 days ahead of 2012 (and 2011) through April 7. Through April 7 rainfall as measured at Salem airport show 8.55 inches behind normal from January 1 and 2.68 inches behind from October 1. Last year from January 1 through April 7 we had 26.19 inches and this year 6.73 inches. Almost 20 inches less in 2013 than in 2012. That is a lot of moisture. Heard from more than one person this last wet spell was a welcome break, needed to get some shop work done, when was the last time you heard that in April?

- **Blueberries:** (Friday, 4/5) What a difference a week makes—especially if it's sunny and in the sixties & seventies. Take a look at the differences below. These photos are of some of the most developed buds in each cultivar in the same fields from week to week. We're catching up on some of our water deficit right now. Blossom counts are high in many fields. Hives are moving in, first bloom sprays are anticipated this coming week. Mummyberry applications continue as well as fertilizer applications.

Blueberry bud development—Western Willamette Valley
3-29-13 (Bottom) 4-5-13 (Top)

Patriot

Duke

Draper

Liberty

Elliott



- **Blackberries:** (Monday, 4/8) Fertilizer should be on, sulfur and cane burning going on after it dries out. Time to start thinking about bloom sprays. Depending on the weather probably see a bloom or two in Black Diamonds next week and Marions are a couple weeks off from first bloom. All continues to look good in the blackberry world.

These pictures of Marionberries surprised me, knew we were ahead of last year but not this far. The last warm spell moved things along quite a bit. First one is from April 10, 2012 and second is from April 8, 2013.



Marionberries last year—April 10, 2012 (photos by Bill Dinger) Marionberries this year—April 8, 2013



Black Diamond blackberries—April 8, 2013 (photos by Bill Dinger)

[Click here](#) to go back to the top of this newsletter.

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:
 - **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).”
 - **Late pink bud:** “Individual flowers fully developed. Expanded corollas are now white but still closed. This bud stage can tolerate 24 to 27°F (-4.4 to -2.8°C).”
 - **Full bloom:** “Most of the flowers on the bush have opened. The bloom stages can tolerate 28°F (-2.2°C).”
 - **Petal Fall:** “The corolla tubes are falling off the flowers, revealing small green fruit. This is the most vulnerable stage to freeze injury. Damage can occur at 32°F (0°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)

[Click here](#) to go back to the top of this newsletter.

Pest Management

Spotted Wing Drosophila

- [Spotted Wing Drosophila survey now open](#) (4/2, Growing Produce)

Ongoing Possible Field Management Activities

All crops

- Vole management.
- Weed management.
- Fertilizer program.
- Can put out monitoring traps for Spotted Wing Drosophila.

Blueberries

- Bringing in bees around 10% bloom.
- 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 in some fields that then develop into reddish brown to black cankers.
- Scout for [leafroller larvae](#) feeding.
- Scout for [Shock virus](#) symptoms in southern area fields.
- Plan for pre-bloom [aphid](#) control where [scorch virus](#) transmission is an issue.
- Make preparations for bringing in bees around 10% bloom.
- Scout for [winter moth/Bruce spanworm](#) larvae. We've had reports in problems in some northern fields.

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 still apply a delayed dormant spray of lime/sulfur or elemental sulfur for Redberry mites and Blackberry Rust.

Raspberries

- Burn back primocanes as needed.
- Scout for cane botrytis lesions.
- (northern areas) Scout for [Clay Colored Weevil](#) feeding and treat as needed.
- Scout for [twospotted mites](#).
- Can still apply Ridomil for [Phytophthora root rot](#) management.

- Can still drench for [crown borer](#) management.

Strawberries

- As plants start to grow, watch for weak growing areas and check plants for [weevil larvae](#), [root rot](#) and/or cold damage.
- (Southern strawberries) Can scout for [Strawberry Crown Moth](#) larvae.
- Can apply phosphite materials to strengthen root systems and manage root rot.

Industry News/Resources

Newsletters/ Berry Reports

- [Michigan State Extension Blueberry News](#) (4/9)
- [New Jersey Blueberry Bulletin](#) (4/3) *Excellent weekly newsletter by Gary Pavlis, Rutgers blueberry agent.*
- [The Source](#) (4/8) *Market reports from The Produce News*
- [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.*

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 entry: 4/4— Understanding spray adjuvants.** *Reports on recent insect and disease research and observations in California.*
- [Team Rubus](#) by Gina Fernandez, North Carolina State Small Fruit Specialist. **Recent entry: 4/2— Monitoring of fungicide resistance service for blackberry and strawberry growers** *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: 3/27—Plan to monitor insect pests in 2013** *Reports on insect issues in the Southeast.*

Technology

- [New technologies for fruit growers](#) (3/7, Growing Produce)

Health

- [Ask Well: Dried or Fresh Blueberries?](#) (4/3, New York Times Video)

Packaging

- United Kingdom: [COOP discovers 'Holey Grail' in packaging](#) (4/9, Fresh Plaza)

Food Politics

- [Exposing the Anti-GMO legal machine: The real story behind the so-called Monsanto protection act](#) (4/2, Forbes)
- [Monsanto provision tucked into spending bill draw critics](#) (4/1, Bloomberg News)
- [U.S. senator admits compromise in passing Monsanto Protection Act](#) (4/5, Fresh Fruit Portal)
- Oregon: [Zealots froth over biotechnology](#) (4/4, Capital Press editorial)

Pesticide Issues

- [Employers play a central role in protecting ag workers and pesticide handlers](#) (4/3, Ag Weekly)

Food Safety

- [Lack of time hinders effective food safety training](#) (4/5, Food Production Daily)
- [Regulation nation: FDA rules could drive up costs for farmers, consumers](#) (4/2, Fox News)

Labor & Immigration

- [Immigration bill may blow up over ag workers](#) (4/5, US News)
- [Conservative groups back immigration reform](#) (4/5, Politico)
- [Cap issue troubles ag labor advocates](#) (4/4, The Packer)
- [Immigration bill envisions new farm worker program](#) (4/3, Capital Press)
- [Ag employment up, shortages still likely](#) (4/2, Capital Press)

West

- Oregon: [Ag groups question need for another pesticide requirement](#) (4/4, Capital Press)
- Oregon: [New IPM bill deemed 'workable'](#) (4/5, Capital Press)
- [Homegrown Organic Farms purchases master facility in California](#) (4/4, Food Engineering)
- California: [Strawberries top crop in San Luis Obispo County](#) (4/5, Fresh Plaza)

North America

- North Carolina: [Expansion of berry cultivation in North Carolina](#) (4/9, Fresh Plaza)
- North Carolina: [Strawberry crop predicted to drop](#) (4/9, Fresh Plaza)

International

- Mexico: [Strawberry production in danger due to climate change](#) (4/9, Fresh Plaza)
- [Chilean blueberry season comes to a successful close](#) (4/9, Fresh Plaza)
- [Mexico dominates U.S. fresh produce imports](#) (4/4, The Packer)
- [Food sentry releases preliminary analysis on international food safety violations](#) (4/3, Digital Journal)
- Australia: [Raspberry import causes bumblebee scare](#) (4/9, Fresh Fruit Portal)
- Chile: ["Blauerre aus Chile" promotions bolster German blueberry sales](#) (4/3, Fresh Fruit Portal)

[Click here](#) to go back to the top of this newsletter.

Food Safety Events

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 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

Event Calendar

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

- **April 10 — Washington Red Raspberry Commission** ~ 10 am Puyallup, WA., Call 360-354-8767 or [email](#) Henry Bierlink for more information.
- **New Posting: April 10 — Washington Blueberry Commission** ~ Steakhouse 9 restaurant (formerly the Homestead), Lynden, WA. 10 am, Call 509-266-4300 or [email](#) Alan Schreiber for more information.
- **April 11 — WSU Skagit County Extension Berry Breakfast & Workshop** ~ 8-noon, 11768 Westar Lane, Suite A, Burlington WA 98233. For directions [click here](#). \$5 with RSVP, \$10 at the door. Breakfast & lunch provided, 3 pesticide credits applied for. Please RSVP with Talea Price by Monday, April 8th. tprice@co.skagit.wa.us
- **April 16 — Oregon Strawberry Commission** ~ 6 pm [Langdon Farms Golf Club](#). Call 541-758-4043 or [email](#) Phillip Gutt for more information.
- **April 22-23 — International Blueberry Organization's 2nd Annual Meeting** ~ Santiago, Chile. [Click here](#) for the website with the agenda and registration information.
- **April 30 — Oregon Raspberry & Blackberry Commission** ~ 6 pm [Langdon Farms Golf Club](#). Call 541-758-4043 or [email](#) Phillip Gutt for more information.
- **May 6 — Oregon Blueberry Commission** ~ Noon at [Chemeteka Community College](#), Chemeteka Events at Winema, building 48, room 210. For more details call (503) 364-2944 or email [Lisa Ostlund](#).
- **June 5 — OSU Strawberry Open House** ~ 1-4:30 pm, North Willamette Research & Extension Station, Aurora Details TBA
- **June 18-20 — Berry Health Benefits Symposium** ~ Charlotte, North Carolina. [Click here](#) for registration and agenda information.
- **July 10 — OSU Caneberry Open House** ~ 1-5 pm, [North Willamette Research & Extension Station](#), Aurora Details TBA
- **July 12-13 — Oregon Berry Festival** ~ Portland, Sponsored by the Oregon berry commissions as well as many Oregon berry farms and berry related businesses. [Click here](#) for the website with a schedule of events and more details.
- **July 17 — OSU Blueberry Field Day** ~ 1-5 pm, [North Willamette Research & Extension Station](#), Aurora Details TBA
- **July 19 - 20 — Northwest Raspberry Festival** ~ Lynden, Sponsored by the Lynden Chamber of Commerce. [Click here](#) for the website with a schedule of events and more details.

[Click here](#) to go back to the top of this newsletter.

Archived Small Fruit Updates

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

[SFU04-02-13](#) [SFU03-26-13](#) [SFU03-19-13](#)

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