

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 & industry through their commissions & councils.

April 18, 2012

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[The scientific case for GM crops](#) (4/17, FreshFruitPortal) By co-founder and former leader of Greenpeace, Dr Patrick Moore

“The campaign against genetically modified crops and GM science is both intellectually and morally bankrupt. If it were not such a serious issue, one that means life or death for millions of people, opposition to genetic engineering would be laughable....”

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

Disease Alerts

Prime time for vector management:

[Scorch virus](#) - British Columbia 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 overwintering 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.

Prime Time to prevent:

[Downey Mildew](#), boysenberries, Kotata blackberries

(occasionally other blackberries): This is a systemic disease that only displays symptoms if environmental conditions are right in the spring. It can cause major losses due to misshapen berries. A distinctive red leaf pattern is also diagnostic of the disease. Phosphite applications in the spring are recommended to prevent outbreaks.

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](#)

Prime Time to scout for:

Shock virus, southern blueberries.

- Symptoms are just becoming visible in many fields.
- 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

Prime time to scout for and prevent: Mummyberry, all blueberries.

Fields at risk should have a protective fungicide on the susceptible tissue at this time to minimize infections.

- The overwintering 'mummyberries' on the ground are now shooting up their tan colored mushrooms & releasing spores.
- Fields are beyond green tip stage when those buds are susceptible to infection.
- We have periods when those buds are continually wet for the 12 hours or more required for infection.
- Our temperatures are often in, or close to, the optimal range for infections to take place (50-57°F / 10-14°C).
- This early critical disease management window is often missed, particularly in wet years like this when it is difficult to get into the field.
- [Mummyberry primer from MSU](#)

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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 (Monday, 4/16)

Lots of fertilizing in blues and raspberries going on

- **Blueberries:** Starting to see some early blooms popping in Duke and Reka in eastern end of valley. But really most are in early to mid pink bud. The last few days I've seen some freezing damage to flower buds and especially leaf buds in the southern Abbotsford area. Must be from the last frost of March 18-19 and possibly some subsequent damage on April 7 which was a light frost morning. Some fields got hit pretty hard. Getting another round of mummyberry sprays on and early aphicides later in the week.

Northern Washington, Whatcom County

- **Blueberries & raspberries:** (Tuesday, 4/17) First split application of fertilizer is all but done on raspberries and blueberries. Weevil presence is light and variable even on the problem fields so far. Four days in a row of frost last week seems to have slowed the raspberry top growth but not killed any green tissue. Most of

the laterals are forming from primary buds with only a small percentage from secondary buds. I see some fields where both buds are pushing with no signs of the weaker lateral aborting. No rust observed yet in reds, but, yesterday's huge rainfall and today's relatively warm temps are going to aid in colony formation. Early blueberry varieties are approximately 10 -14 days from bloom. Winter moth larvae are starting to show on the field borders.

- **Strawberries:** (Tuesday, 4/17) Wrapping up fertilizer on everything. Weevil damage is becoming apparent in the strawberries, slugs also.
- **Blueberries** (Tuesday, 4/17) – We are doing another round of Indar + copper and evaluating winter/pseudomonas damage in selected fields
- **Raspberries:** (Tuesday, 4/17) Finishing up Goal shoot burning. We've got on some trials going with Matrix and Dual Magnum. Also prepping drip systems just in case we need to irrigate sometime this year.

Northern Washington, Skagit County: (Tuesday, 4/17)

- **Blueberries & blackberries:** First dry split fertilizer applications are done on blueberries and trailing blacks. A humic acid drench is going on in the organic blues. We're setting up for a fertigation application for next week if we get some sun. Shock virus symptoms are showing up in Reka variety and to a lesser extent in the younger Bluejay fields. There's some bud damage in blues from high winds beating the canes together. We've had lots of shattered buds on the weed mat in the exposed blocks. No worms (winter moth larvae) yet to speak of. Fuming on our nursery plants is very problematic with high winds. Spraying is tough as well. We're putting out bins for bee hives today. A big question might be labor availability. There's a much heavier ICE (Immigration & Customs Enforcement) presence in Skagit valley than we have seen before. White SUV's with green slash tooling around daily, particularly along Padilla Bay....protecting us from illegal aliens in landing craft??

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Industry News/Resources

Newsletters/ Berry Reports

- [New Jersey Blueberry Bulletin](#) (4/16) *Excellent weekly newsletter by Gary Pavlis, Rutgers blueberry agent.*
- [Michigan State Extension news for Blueberries](#) (4/10)
- [Michigan State Fruit News](#) (4/16)
- ['The Source'](#) (4/16) *Market updates from The Produce News.*
- [National Berry Report](#) *A daily-updated fresh market statistics report on all berry types hosted & maintained by the California Strawberry Commission*

Magazine compilations

- The Packer's Market scope: [blueberries](#) [blackberries](#) [raspberries](#) [strawberries](#)
Recent stories & fresh market pricing for the various berries from The Packer.
- Growing Produce: [Recent Berry Articles](#)

Berry Research Blogs

- [Strawberries and Caneberries blog](#) by Mark Bolda, UC Davis Berry Extension Agent. *Reports on recent insect and disease research & observations in California.*
- [Team Rubus](#) by Gina Fernandez, North Carolina State Small Fruit Specialist. *Reports on issues in blackberries and raspberries from the Southeast.*
- [The NC Blueberry Journal](#), by Bill Cline, North Carolina researcher & extension specialist, *Reports on issues in blueberries from the Southeast.*

Research

- [Use of imidacloprid possibly linked to bee deaths](#) (4/9, AgAnnex)

National

- [Florida blueberries start early, may run later than usual](#) (4/10, The Packer)
- [U.S. Highbush Blueberry Council seeks new directors](#) (4/11, The Packer)
- [Crop loss heavy in California hail](#) (4/13, The Packer)
- (CAL) [Short-term setback for strawberry season](#) (4/13, FreshPlaza)

Additional, Ongoing Pest Management & IPM Information

Diseases

- **Risk higher than normal: [Phytophthora Root Rot](#) raspberries:** Warming, saturated soils favor *Phytophthora* spread & infections.
- **Risk higher than normal: [Blackberry Rust \(Phragmidium Rust\)](#) Evergreen blackberries:** Warming temperatures & long periods of leaf wetness favor *Phragmidium* rust infections.
- **Prime Time to Scout for: [Pseudomonas \(Bacterial Blight\)](#) blueberries-** Water-soaked lesions can appear at this time of year on canes that then develop into reddish brown to black cankers.
- **Prime Time to Scout for: [Purple Blotch](#) blackberries:** Check for cane lesions that are easy to see as the weather warms but the emerging foliage has not yet hidden.
- **Prime Time to Scout for: [Cane Blight](#) raspberries:** 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.

Insects/Mites

- **[Azalea Bark Scale](#), blueberries.** This scale's telltale bright white egg sacs on the lower branches of infested plants are becoming more apparent in some southern blueberry fields.
- **Root Weevils, strawberries.** Larvae of [Black Vine](#), [Rough Strawberry](#), [Strawberry Root Weevils](#) are now being recovered from some strawberry fields.
- **[Blueberry Gall Midge](#), southern blueberries.**
- **Prime Time to Scout for: Mites in raspberries (northern growing areas): [Twospotted mites](#) [Yellow mites](#)** There are reports of higher than normal early mite populations in northern raspberry fields.
- **Prime Time to Scout for: [Winter Moth/Bruce Span Worm](#) blueberries**
- **Alert: There are field reports of damage from this weevil at this time: Prime Time to Scout for: [Clay Colored Weevils](#) northern raspberries & blueberries:** This early emerging species is a pest in northern growing areas where it feeds on newly emerging shoots and buds.
- **Prime Time to Scout for: [Strawberry Crown Moth](#) southern strawberries:** As plant growth resumes, plants weakened by SCM can be spotted. Infested plants will have a weakened crown and often will break off with a pull on the top growth.
- **[Raspberry Crown Borer](#) caneberries:** If you've had borer problems in the past, this is the time to drench for crown borer control 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.
- **[Redberry Mite](#) evergreen blackberries:** Delayed dormant sprays of lime/sulfur or elemental sulfur for Blackberry Rust and Redberry Mite are recommended ASAP.

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Spotted Wing Drosophila Update for 4-17-12

This Update is a collective effort. It is composed by Peerbolt Crop Management with contributions from OSU, USDA-ARS, WSU, B.C. Ministry of Agriculture and various northwest berry industry people.

SWD Information Websites

[Peerbolt Crop Management](#)

[Oregon State Univ.](#)

[B.C. Ministry of Ag.](#)

[WSU Westside](#)

[WSU Eastside](#)

General Comments

- Some of the major goals of the early season monitoring program are:
 - Evaluating the size and extent of the overwintering population.
 - Determining what wild/border area fruit hosts the first new generation of SWD can emerge.
 - Examining the overwintering females & determining when they are capable of laying viable eggs.
 - Testing a range of monitoring trap designs and attractants for efficacy and ease of use.
- Trap catches in the Willamette Valley so far this spring are running ahead of the previous two trapping seasons.
- Our preliminary observations appear to indicate that the lack of any major cold spells this past winter have allowed a higher percentage of adult SWD to have survived.

- Adults being caught are both male and female where in past seasons females predominated early trap catches.
- No applications are recommended for control of SWD at this time in northwest berry crops since there is no fruit at risk and it is presumed that applications at this time would likely have minimal impact on overall SWD populations that will be drawn into the field when ripe fruit is present.

SWD Resources

[SWD Identification Webinar](#) Amy Dreves, OSU *You can scroll through the presentation using the time indicator on the bottom.*

[North Carolina SWD Report](#) (4/12)

Regional Monitoring (South to North)

- *Monitoring traps and programs are just getting set up and will be expanded over the next few weeks.*
- *Number of traps checked this week in the crop in parentheses.*
- *This scouting program & reporting system are being funded in part by a USDA SCRI grant & a Northwest Center for Small Fruit Research grant.*

Oregon & SW Washington Public Scouting Program

- **Jackson, Josephine, Douglas Counties:** No report this week.
- **Lane County:** No report this week.
- **Linn County:** **Strawberries (1):** 1 male/no females.
- **Polk County:** No trap data reported.
- **Marion County:** **Strawberries (9):** 1 male/13 females. **Cherries (1):** none.
- **Clackamas County:** **Strawberries (1):** 4 males/10 females. **Blackberries (1):** no males/2 females. **Blueberries (1):** 1 male/1 female. **Honeysuckle (1):** no males/4 females.
- **Yamhill County:** **Strawberries (6):** no males/11 females. **Cherries (3):** no males/71 females. **Plum (1):** none.
- **Washington:** No report this week.
- **Multnomah County:** **Strawberries (2)** none. **Cherries (1):** no males/1 female. **Blackberries (1):** none.

Southwest Washington Public Scouting Program

- **Clark/Cowlitz/Lewis Counties:** **Strawberries (10):** 28 males/32 females. **Cherries (2):** 6 males/5 females. **Raspberries (2):** 13 males/11 females. **Blackberries (2):** 1 male/6 females. **Peaches (1):** 4 males/no females. **Honeysuckle (1)** no males/4 females. **Plum (1)** 2 males/no females.

Eastern Washington--WSU Reporting Site

- [Click here](#) for the WSU Eastern Washington SWD reporting site—It's being updated presently

Western Washington--WSU Public Scouting Program

Data will begin being posted the first part of June.

- [Click here](#) for the Home site with links to all the counties and site use information.

Southwestern British Columbia

Monitoring Reports have not yet begun being posted for Southwestern BC from the BC Ministry of Ag.

- [Click here](#) for their SWD information website

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Management Material Resources

Oregon & Washington

- **Blueberries:** [SWD pesticide options & information](#)
- **Raspberries & blackberries:** [SWD pesticide options & information](#)
- **Strawberries:** [SWD pesticide options & information](#)

British Columbia (6/28/11): [SWD Management in BC Berry Crops](#) (with insecticide options listed)

Pesticide tank mixes caution

In an effort to manage the risk involved with this pest, some growers are using combinations of pesticides that they have not used in the past. Before applying an unfamiliar tank mix, be sure to check with your supplier, crop consultant, or other advisor to be sure it won't cause damage. Some mixes have the potential for unexpected, economically damaging effects—just the thing we're trying to avoid by using them.

Event Calendar

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

- **April 17, 18, 19 and May 2 — Oregon Produce Growers Food Safety Training & Education** ~ Opportunity for growers, crew leaders, and labor contractors to exchange and obtain information on the best practices in reducing risk of foodborne illness. [Click here](#) for exact date, times, and locations.
- **April 18 — Oregon Raspberry & Blackberry Commission meeting** ~ 9 am, Langdon Farms Golf Club Restaurant, Aurora, OR. For more information, call 541-758-4043 or [email](#) Philip Gutt.
- **May 2 — Sumas Aquifer Groundwater Nitrate Science Forum II** ~ subtitled “What have we learned since the 2007 forum?” ~ 8:30-4:30, Matsqui Centennial Auditorium, Abbotsford City Hall, 32315 South Fraser Way, Abbotsford, BC. [Click here](#) for the draft agenda. For information contact Bernie Zearth, Bernie.zearth@agr.gc.ca ; 506-452-4828.
- **May 1 — Annual U.C. Extension Watsonville Strawberry Pomology Field Day** ~ 1-3:30, Watsonville Research Facility. [Click here](#) for details.
- **May 3 — Oregon Strawberry Commission meeting** ~ 5:30, Langdon Farms Golf Club Restaurant, Aurora, OR. For more information, call 541-758-4043 or [email](#) Philip Gutt.
- **New Time: May 7 — Oregon Blueberry Commission meeting** ~ Noon, Roth's West, Salem, OR (Budget Hearing). Call (503) 364-2944 for more information or [email](#) Brian Ostlund.
- **June 3-7 — International Raspberry Organization Conference** ~ Abbotsford, BC. Plans are being made for the one day 8th IRO conference and for raspberry tours in the Fraser Valley and in NW Washington.

Oregon State Open House Schedule

More information on these will be coming as they get closer. They'll be at the North Willamette Research & Extension Center in Aurora.

- **June 13 — Strawberry Open House**, starting at 1pm
- **July 11 — Caneberry Open House**, starting at 1pm
- **July 12 — Blueberry Field Day**, from 1 to 5pm

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Nutrient Management

Blueberries

- 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).

Caneberries

- [Click here](#) for OSU's “Nutrient Management Guide—Caneberries” (8 page pdf).

Crop Work

All crops

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

Blueberries

- Scout for Winter Moth/Spanworm and treat as needed.
- (Northern areas) Scout for Clay Colored Weevil feeding and treat as needed.
- Scout for sprouting Mummyberries and treat as needed.

- Scout for leafroller larvae feeding.
- Plan for pre-bloom aphid control where scorch virus transmission is an issue.
- Make preparations for bringing in bees around 10% bloom.

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.
- (northern areas) Scout for Clay Colored Weevil feeding and treat as needed.
- Scout for mites.
- Can still apply Ridomil for Phytophthora root rot management.
- Can still drench for crown borer management.
- Scout for Cane Blight and Cane Botrytis symptoms.

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.

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Archived Small Fruit Updates

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

[04-10-12](#)

[04-04-12](#)

[03-20-12](#)