

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.

May 29, 2012

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[Rubus Breeding Programme at Plant and Food Research](#)

8 Minute video with some great caneberry shots. This is the company that works with Northwest Plants in Lynden and released the 'Wakefield' raspberry variety. (4/4/12, You Tube)

[USDA Report Says Pesticide Residues Aren't a Food Safety Concern](#) (5/26, Food Safety News)

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

Pest Alert: New Information

Scorch virus - British Columbia Blueberries

- Bloom is the best time to walk the fields to identify bushes showing virus symptoms.
- It can be very difficult to be able to distinguish between scorch and shock virus symptoms in the fields. Testing is the only way to be sure.
 - [Click here](#) for the BCAGRI blueberry scorch virus link.
 - [Click here](#) for more information on shock Virus.
- The BC Blueberry Council is providing free scorch and shock virus testing for all BC blueberry growers again in 2012 (up to a maximum of 10 samples per field).
- The BCAGRI Plant Diagnostics Laboratory in Abbotsford is now accepting virus samples.

Email the B.C. Blueberry Council's research coordinator, Karina Sakalauskas at ksakalauskas@yahoo.com.ar or call her at 604-613-2133) for more information.

SWD alert for Oregon and SW Washington strawberries

While most survey sampling sites, including the majority of strawberry field sites, are still recording very low numbers of SWD adults, there are some locations that are recording much higher numbers. Given the present state of knowledge of this pest:

- Growers are encouraged to put out SWD adult monitoring traps as their fruit begins to color.
- Remain knowledgeable regarding the regional status of the pest.
- Monitor fruit closely both before and during harvest for SWD larvae.

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](#)

- Be knowledgeable regarding control measure options and be able to react quickly if any infestation is detected.
- Consider whether a pre harvest insecticide application is indicated given the increased risk.

Management Material Update

Thanks to Tom Walters, WSU Small Fruit Horticulturist for passing on this information

Washington State Blueberries--Pristine, fungicide

From Eric Johansen (ejohansen@agr.wa.gov), WSDA Special Pesticide Registration Program Coordinator:

“WSDA did not approve the supplemental label for use of Pristine on berries since there are several unresolved issues with the wording of the supplemental label. Users need to comply with the directions for use on the federal label for Pristine that is on the container.”

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, 5/28)

- **Blueberries:** We're into the last stages of flowering in the blues. Lots of green berry and sizing occurring. Looks to be a good early crop shaping up but mid-season looks average. Seeing considerable leaf rollers in fields right now. As soon as bloom is done we can address this. Wet, warm weather this coming week will increase anthracnose and botrytis potential.
- **Raspberries:** First flower fungicide sprays are going on raspberries starting up this week. Lots of root rot evident the past week after all the early week heavy rain in these warm soils.

Northern Washington, Whatcom County (Saturday, 5/26)

- **Blueberries:** Blueberry bloom is wrapping up, looks like an average to above average crop, depending on the variety. Lots of shock and winter damage are showing in the Bluecrop, Duke, and Reka. Jersey, Bluejay, 1613 (Hardibblue), Draper, Liberty look OK. Nice weather has allowed for decent pollination.
- **Raspberries:** Raspberries are coming into bloom rapidly, fungicide applications are in full swing. Mites are in remission for now. It looks like an average crop at this point.
- **Strawberries:** Strawberries are sizing nicely. No bug problems except for the weevil spots.

Northern Washington, Skagit County (Monday, 5/28)

We're getting everything sprayed up for the expected 3" of rain predicted for this coming week.

- **Blueberries:** Pollination in the blues looks very good. Lots of shock and OBLR leafrollers are showing up in the organic Bluejay.
- **Blackberries:** . Black Diamond is at about 15% bloom.
- **Strawberries:** We'll start harvesting Albion strawberries under high tunnels today. The quality looks decent for the first round.
- **Strawberries:** *From Tom Walters at WSU's Mt. Vernon Research Station (Sunday, 5/27):* “We harvested strawberries from high tunnels today here in Skagit. Palomar produced the most fruit; several days earlier than anything else, but we did also harvest a few Radiance, Festival and Seascape fruits. This was a very small harvest, but we anticipate more substantial ones beginning next week.”

Willamette Valley, Oregon and SW Washington

- **Blackberries, processed:** (Monday, 5/22) This year's blackberries are way ahead of last year's record late crop. The photo's below illustrate this.



*Marionberries
on left--May 21, 2011;
on right---May 21, 2012
(Photos by Bill Dinger)*



Blueberries: (Saturday, 5/26) At Salem, blueberry bloom is nearly complete with only Elliott and Legacy still pushing out final blossoms. This long bloom window in Legacy (late Feb to late May) is a problem as it is one of the more challenging varieties to hand pick efficiently. The ripe fruit is difficult for the picker to find amongst the dense foliage and searching among the canes for ripe fruit causes much drop. Add in this long bloom window, and Legacy is even more challenging to harvest well. Some of the harvesting pain is made up for in good yields though. High winds last week caused some green fruit drop but not enough to impact yield. One site, to the north of us a few miles, had frost damage. (see photo below) The damage was mostly in Duke and was spotty but 10 to 20% of the fruit may have been affected. Our last ground applied cover spray will go out this week just before the weighted canes close in the row middles. Shock virus symptoms will certainly affect our yields in Liberty, Bluecrop and Duke this year.



Duke fruit damaged by a late frost, Willamette Valley, (photo taken in late May by Jeff Flake)

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Pest Alerts

- **Time for preventative fungicide applications: [Alternaria Fruit Rot](#)**

Alternaria can infect the fruit beginning at the end of bloom and throughout the fruit development stage, up until harvest. Infections remain latent until the fruit ripens. Infected fruits exhibit a shriveling or caving-in of the side of the berry and become watery in storage. ([Click here for expanded view of this disease.](#))

- **Time for preventative fungicide applications: [Anthracnose Ripe Rot](#)**

(Photos below by Caroline Teasdale)

If you've had problems with Anthracnose, prevention of a reoccurrence begins at petal fall. Symptoms: First, blighting of shoot tips; then, a few flowers turn brown or black. Leaf spots, when they occur, are large or small and roughly circular. As infected berries ripen, the flower end may soften and pucker. Under warm and rainy conditions, salmon-colored spore masses form on infected berries. After harvest, spore masses form rapidly on infected fruit when in cellophane-covered baskets or in plastic clamshell packs. ([Click here for expanded view of this disease.](#))

- **Time to scout for and evaluate if management action is needed: [Powdery Mildew Strawberries](#).**

Dry, warm, humid conditions favor powdery mildew in strawberries. We're seeing the disease beginning to get going in some area fields. ([Click here for expanded view of this disease.](#))

Time to scout for and evaluate if management action is needed: [Yellow mites Raspberries](#)

- This early season mite is smaller and paler than two-spotted mite and has less webbing. It is being found at treatable levels in raspberries in all growing regions. ([Click here for expanded view of this pest.](#))

Time to scout for and evaluate if management action is needed:

[Blackberry Rust \(Phragmidium Rust\) Evergreen blackberries](#)

- This disease is of economic threat to only to Evergreen blackberries where it can be devastating. There are reports of it being present in fields at this time. Treatment is recommended. Rally (myclobutanil) is particularly effective.

Time to scout for and evaluate if management action is needed:

[Yellow Rust Raspberries](#)

- Evaluate disease incidence and stage to determine whether (and when) fungicide applications are warranted.

Prime time to scout for (and not do a darn thing about):

Shock virus, Blueberries.

- Infection symptoms 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.

Time to scout for: Mummyberry, all blueberries.

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

- Once plants are done blooming, no further infections will take place.
- As fruit starts to size, infected fruit will become easy to distinguish.
- [Mummyberry primer from MSU](#)

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Spotted Wing Drosophila Update for 5-29-12

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](#)

Information from the OSU/USDA Spotted Wing Action Team (SWAT)

- [Click here](#) for the May 20th Update that focuses on SWD and blackberries.
- [Click here](#) for their first issue that focused on strawberries. (Issued on May 1st)

General Comments

- We continue with getting higher and more consistent trap counts earlier this year than the previous two seasons.
- Due to a fungicide application we weren't able to check to cherry site that had the very high (over 1,000) trap count last week.
- Other cherry sites as well as some wild habitat sites are recording high numbers.
- Some strawberry sampling sites in SW Washington are beginning to record higher numbers. These fields are at risk of SWD infestation.
- Most site numbers remain very low.
- A possible explanation for just a few sites recording very high numbers while most remain low is that the high count sites are close to a fruit source for the first new generation of flies to be breeding within.
- Two question: How do the trap catch dynamics change once there is ripe fruit available to attract the adults? How does the ripe fruit 'competing' with the apple cider vinegar traps effect their ability to attract the adults? The trap catch numbers are likely correlated to how much competition they have within the field.

SWD in the news

- (Canada) [New national group will tackle two new pest threats](#) (5/23, Better Farming) *SWD and Brown Marmorated Stink Bug.*
- (Oregon) [Spotted wing drosophila makes early appearance](#) (5/25, Capital Press)
- (Massachusetts) [Budget earmark seeks to rid state of new pests](#) (5/25, Boston Herald) *Good luck.*
- [Fly survives at lower temperatures, research shows](#) (5/25, Capital Press) *The headline is wrong—it's that SWD keeps developing at lower temps than previously thought.*

Regional Monitoring (South to North)

Oregon Public Scouting Program count for the week ending on 5/25

(Number of traps checked this period in the crop in parentheses).

This scouting program and reporting system are being funded by a USDA SCRI grant, and a Northwest Center for Small Fruits Research grant

- **Linn County: Apples(1):** none. **Blackberries (6):** 1 male/1 female. **Black Raspberries (2):** no males/1 female. **Blueberries (3):** no males/2 females. **Other caneberries (3):** no males/3 female. **Cherries (2): 9 males/52 females.** **Grapes (2):** none. **Peaches (2):** no males/2 females. **Pears (1): 1 male/21 females.** **Raspberries (3):** 1 males/no females. **Strawberries (9):** none. **Tayberries (1):** none **Wild Habitat (19) 21 males/155 females.**
- **Polk County: Cherries (2):** 1 male/1 female.
- **Benton County: Cherries (2):** 1 male/2 females. **Nectarine (1):** 3 males/1 female. **Peach (2):** none. **Raspberry (1):**none. **Wild Habitat (4):** 1 male/1 female.
- **Marion County: Strawberries (15):** no males/1 female.
- **Clackamas County: Strawberries (2):** none. **Honeysuckle (1):** none.
- **Yamhill County: Cherries (6):** none. **Strawberries (7):** 1 male/ 2 females
- **Multnomah County: Strawberries (5):** none. **Cherries (1):** none. **Blackberries (1):** no males/3 females.

Southwest Washington Public Scouting Program for the two weeks ending on 5/4

- **Clark/Cowlitz/Lewis Counties: Strawberries (9): 19 males/ 45 females. Cherries (2): 137 males/157 females.**

Eastern Washington

- [Click here](#) for the WSU Eastern Washington SWD reporting site.

Latest report from the WSU site: Friday, May 25: “Two regions were added to the positive list, Mattawa and Royal City, bringing the total to seven regions with positive catches. Most of the recent captures have been in conventional cherry orchards; however, numbers remain low (1-2 trap). Please note that in some of the traps there are hundreds of other drosophila flies. Looking for SWD is like the proverbial needle in the haystack. British Columbia has also had several weeks of positive traps; they found 3 females this week, with a total of 4 positive regions.”

Western Washington--WSU Extension Scouting Program

This scouting program and reporting system are being coordinated by Whatcom County Extension and funded in part by the Washington Red Raspberry Commission.

- Scouting has just started up with traps now being put out.
- [Click here](#) for information on the program.
- In addition to fields being covered by the Raspberry Commission funding, scouting services will be available on a fee for service basis.
- If you are interested in services, contact Colleen Burrows at 360-676-6736 x 22 or cburrows@wsu.edu.

SWD Management Material Resources

Oregon and Washington

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

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

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Additional, Ongoing Pest Management and IPM Information

Diseases

- **Scout for:** [Phytophthora Root Rot](#) raspberries.
- **Scout for:** [Purple Blotch](#) blackberries.

Insects/Mites

- **Scout for:** [Raspberry Beetle](#), northern raspberries.
- **Scout for:** **Root Weevils**, strawberries. Larvae of [Black Vine](#), [Rough Strawberry](#), [Strawberry Root Weevils](#) are now being recovered from some southern strawberry fields.
- **Scout for:** **Mites in raspberries:** [Twospotted mites](#)
- **Scout for:** [Winter Moth/Bruce Span Worm](#) blueberries.
- **Scout for:** [Clay Colored Weevils](#) northern raspberries and blueberries.
- **Scout for:** [Strawberry Crown Moth](#) southern strawberries.
- **Scout for:** [Azalea Bark Scale](#), southern blueberries.
- **Scout for:** [Blueberry Gall Midge](#), blueberries.

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Industry News/Resources

Newsletters/ Berry Reports

- [BC Blueberry IPM Newsletter](#) (5/25) Weekly by Carolyn Teasdale, [ES Cropconsult](#). Sponsored by the BC Blueberry Council.
- [New Jersey Blueberry Bulletin](#) (5/21) Weekly by Gary Pavlis, Rutgers blueberry agent.
- [Michigan State Extension news for Blueberries](#) (5/22)
- [The Source](#) (5/23) Market reports from The Produce News
- [Imperial Frozen Foods Newsletter](#) (5/24)
- [National Berry Report](#) A daily-updated fresh market statistics report on all berry types hosted and maintained by the California Strawberry Commission

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 blog](#) by Mark Bolda, UC Davis Berry Extension Agent. **Most recent entry: 5/25—Raspberry sawfly in central coast raspberries** Reports on recent insect and disease research and observations in California.
- [Team Rubus](#) by Gina Fernandez, North Carolina State Small Fruit Specialist. **Most recent entry: 5/18—Blackberry crop after 2012 freeze** 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: 5/23—Do it yourself: An update on distinguishing SWD larvae other insects in strawberries.**
- [The NC Blueberry Journal](#) by Bill Cline, North Carolina researcher and extension specialist, **Most recent entry: 4/16—Glyphosate herbicide injury in blueberries** Reports on issues in blueberries from the Southeast.

Technology

- [System monitors soil moisture](#) (5/24, The Grower)

Farm Bill

- [Farm bill introduced in Senate](#) (5/24, The Packer)

Labor

- [Immigration, labor issues still dog industry](#) (5/23, From Field to Fork, PMA blog)
- [Number of farm workers in U.S. down, wages up](#) (5/23, Capital Press)
- [Despite difficulties, farmers continue to use H-2A labor](#) (5/22, Capital Press)

The West

- [California, Oregon organic certifiers merging](#) (5/24, The Grower)
- [California strawberries deserve some credit](#) (5/25, The Packer-Opinion)

National

- [New Jersey blueberries to enter season a week early](#) (5/24, The Packer)
- (North Carolina) [Early blueberries encounter good demand](#) (5/28, Fresh Plaza)

International

- [Austrians enter Serbian fruit and vegetable market](#) (5/18, Fresh Plaza)

- [Changes at play for Argentine and Uruguayan blueberries](#) (5/25, Fresh Fruit Portal)

Event Calendar

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

- **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.
- **June 13 — OSU Strawberry Open House** ~ [Click here](#) for the details on the agenda.
More information on the below events will be coming as they get closer. They'll be at the North Willamette Research and Extension Center in Aurora.
- **July 11 — OSU Caneberry Open House**, starting at 1pm
- **July 12 — OSU Blueberry Field Day**, from 1 to 5pm
- **July 20 and 21 — Oregon Berry Festival** ~ Portland, [Click here](#) for the Website. Sponsors and vendors are welcome!

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.
- (North) Scout for Clay Colored Weevil feeding and treat as needed.
- Scout for mummyberry and treat as needed.
- Scout for leafroller larvae feeding.
- Stay on top of aphid management where Scorch virus transmission is an issue.
- Scout for virus symptoms and send in samples for testing as needed.
- Have bees in.
- (South) Scout for Azalea Bark Scale.
- Scout for Blueberry gall midge damage.
- Can apply fungicides for fruit/blossom rot from 10% bloom through the end of bloom.
- After petal fall, can treat for alternaria and anthracnose prevention if needed.

Blackberries

- Scout for virus symptoms and send in samples for testing as needed.
- Burn back primocanes as needed.
- Can put out pheromone trap to monitor for leafrollers.
- Have bees in by 10% bloom.
- Can apply fungicides for fruit/blossom rot from 10% bloom through the end of bloom.

Evergreen Blackberries

- (South) Scout for and treat as needed for Blackberry rust.

Raspberries

- Burn back primocanes as needed.
- (North) Scout for Clay Colored weevils.
- (North) Scout for raspberry beetle feeding symptoms.
- Scout for virus symptoms and send in samples for testing as needed.
- Scout for Cane Blight and Cane Botrytis symptoms.
- Can apply a phosphite material for stronger root growth and root rot prevention.
- Can put out pheromone traps to monitor for leafrollers.
- Scout for Yellow Rust and assess treatment options.
- Scout for spider mites and treat as needed.
- Have bees in by 10% bloom.
- Can apply fungicides for fruit/blossom rot from 10% bloom through the end of bloom.

Strawberries

- Watch for weak growing areas and check plants for weevil larvae, root rot and/or cold damage.
- (South) Can scout for Strawberry Crown Moth larvae and put out pheromone monitoring traps.
- Can apply fungicide starting at 10% bloom for fruit/blossom rot.
- (South) Scout for weevil adults and notching.
- Can apply slug bait as needed.
- Scout for Powdery Mildew and treat as needed.
- Scout for Two Spotted Spider Mites and predatory, beneficial mites.
- Scout for aphids.

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Archived Small Fruit Updates

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

[05-22-12](#)

[05-15-12](#)

[05-08-12](#)

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

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