

# 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.

May 8, 2012

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### **Maximum Residue Levels (MRL's)--Primer & Reminders**

**Definition:** "A Maximum Residue Level is the highest possible level of a pesticide that is legally authorized in a food."

- With more and more of our berries going into export markets, MRL's have become a major source of problems and confusion among growers and processors.
- Different countries often have different MRL's on different materials.
- **Check with your processor, supplier, or extension person** if you have questions concerning tolerances for specific materials in specific countries **before applying that material.**

**Joe DeFrancesco, OSU Pesticide Specialist**, has developed the following MRL lists for berry crops for some of our common trading partners: [Click here](#) for Blueberries. [Click here](#) for Caneberries.

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

Starting last Saturday we're into a dry (or nearly dry) run of at least 10 days. It's about perfect timing for getting the pollinators flying and crops pollinated. It'll also help suppress some of the fungal diseases like rust in raspberries and mummyberry in blueberries.

Unfortunately it'll also favor insect & mite development. Speaking of which--I'm starting up the regular spotted wing drosophila (SWD) updates in cooperation with OSU's Amy Dreves and inputs from our other regional cooperators. I've been holding off not wanting to cry wolf about SWD too soon this year since a high percentage of the industry is educated on the pest. But it's becoming obvious at this point that we're facing a different pattern with it this season. In contrast to the last two years we've had a milder winter and are looking at a likely drier & warmer Spring. We could be in for bigger numbers of flies earlier...and later.

Amy reports that her folks picked up the first fruit with this year's generation of larvae in it—it was in the fruit of an ornamental called *Sarcococca* in Corvallis. This insect isn't going away. Keep informed.

Tom Peerbolt, SFU Editor

### 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](#)

## 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, 5/7)

- **Blueberries:** Finally, some warm weather in the Fraser Valley for a promised week or so. All blueberry varieties well into bloom now (even a bit on Elliot). The coming warm dry days should bring out a big push in flowering. The last week or two has seen poor pollinating conditions so we are hoping to make up for that this week or so. Really seeing some variability in plant vigor and bloom where spring frost has impacted plantings.
- **Raspberries:** Raspberries continue to grow well but there is considerable yellow rust to deal with. Mite control is being implemented now. Clay coloured weevil activity is strong. We are about a week away from nitrogen applications in both raspberries and blueberries.

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

- **Raspberries:** Raspberries in nice shape, lots and lots of leaf feed going on, lots of mites and yellow rust too. Should have good mite killing weather coming up.  
*In response to question from SFU editor regarding MRL issues in raspberries: "MRL's? You mean no Acramite to Japan, no bifenthrin to Canada, no Savey to Canada, no Zeal to Canada or Japan? How do we manage mites???"*
- **Blueberries:** Bees are in the blueberries, working slowly, we are in early bloom in most varieties, none in Draper and Liberty. Low fields real wet. Winter damage (?) looking worse as time goes by. Would sure be nice to have a plant pathologist on duty. *(Explanation from SFU editor: The Washington State berry growers have a great need for a publically funded berry Pathologist (either WSU or USDA). The position at WSU has been eliminated.)*
- **Strawberries:** Strawberries are looking good too. We got pre-bloom insecticides on already.

### **Northern Washington, Skagit County** (Tuesday, 5/8)

*From Tom Walters, WSU Small Fruit Horticulturist:*

- **Raspberries:** I saw some florican collapse, probably due to Phytophthora, yesterday in a Lynden raspberry field. Seemed a little earlier than usual to me. This was in a second-year field; maybe the less-developed root system was quicker to go down. Also finding clay-colored weevil in the fields.
- **Blueberries & Raspberries:** Most of our blueberry varieties have begun bloom; the raspberries will follow soon with this warm weather.

### **Willamette Valley, Oregon and SW Washington**

- **Strawberries:** (Thursday, 5/3) Strawberries are right around 10% bloom or little past. They'll move quickly now with warmer, sunnier weather. Get the bloom sprays on. The first weevil pupae was found by a scout this last week. We should start finding adults and leaf notching very soon. The fields I've seen are looking very good overall.
- **Blackberries, processed:** (Monday, 5/7) Watch out for rust in the evergreens, I think this warm weather will bring it on. With this nice break in the weather most field work is getting done, even saw some new plantings going in today. Would expect to see some bloom in Marion towards the weekend. Last year saw "first bloom" on May 20. All the blacks continue to look really good.
- **Blackberries, processed:** (Monday, 5/7) Silvans are starting to bloom. Saw a field around 10% yesterday. Make sure to have the bloom sprays and bees ready to go by 10% bloom.



*Marionberry blackberry, Willamette Valley, OR on 5/7/12 Photos by Bill Dinger*

- **Blueberries:** (Monday, 5/7) At Salem, blueberries are thriving in the heat and the fields emit a dull roar with honey and bumble bee activity. Shock here is worse than we predicted with Liberty fields often at >30% shock and Duke fields as high as 20% shock. The bright spots are Aurora and Draper with little shock and good crop loads.
- *In response to question from SFU editor regarding MRL issues in blueberries:* Regarding MRLs, we have learned to be cautious with Mustang Max (1 day PHI) when picked soon after treatment. We also detect Asana XL residue long after application which is problematic for countries with no threshold for Asana. Switch and Pristine residues are frequently detected but never above tolerances.



*Aurora variety of blueberry in Salem, OR on 5/7/12 Photo by Jeff Flake*

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## **Pest Alerts**

**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.

**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**

- Yellow rust is now changing spore stages from black overwintering spores (teliospores) to yellow/orange colored 'blisters' (spermagonia) on the top surface of leaves.
- This is followed closely by a very visible, almost day glow orange/yellow spore stage (aecia).
- The fourth spore stage (uredinia) appears later in the season as yellow 'dust' on the bottom of leaves. This last stage is the one that multiplies quickly & can quickly defoliate canes if left untreated.
- Evaluate disease incidence and stage to determine whether (& when) fungicide applications are warranted.

## **Prime time for vector management & disease prevention:**

### **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 over-wintering aphids before they reproduce and disperse.**"
- Click on the blue link above for full information from the B.C. Ministry of Agriculture.
- Direct questions to B.C. Blueberry Council's research coordinator, [Karina Sakalauskas](#) (604) 613-2133.

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

### **Shock virus, Blueberries.**

- Infection symptoms are becoming more 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.

## **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.***

- We have periods when plant tissue is continually wet for the 12 hours or more required for infection.
- Our temperatures are often in the optimal range for infections to take place (50-57°F / 10-14°C).
- [Mummyberry primer from MSU](#)
- Secondary infection symptoms are showing up in southern fields.

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## **Spotted Wing Drosophila Update for 5-8-12**

*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](#)

[What should growers and homeowners who find SWD do?](#) (5/4, N. Carolina State blog, Hannah Burrack)

## **General Comments**

- There is evidence that a higher number of SWD adults, both male and female have survived the winter than in the previous two seasons.
- Using the same apple cider vinegar attractant and the same trap design at the identical positions have recovered more adult flies so far this year.
- The first SWD larvae of this season were recovered on April 23<sup>rd</sup> from an ornamental plant in Corvallis.
- Overwintering adults appear to not in general have survived in crop fields but in habitat refuges such as border wild blackberries and trees.
- No insecticide treatments are recommended at this time since numbers are low, mostly in border areas, and until there is ripening fruit crops are not at risk..

## OSU & USDA-ARS team up for an SWD Research newsletter series

- [Click here](#) for the first of an anticipated 8-10 newsletters this season on SWD research
- Wei Yang, OSU berry extension agent, is the editor of the series.
- Contributing authors, in addition to Wei, are:
  - From OSU: Amy Dreves, Joe DeFrancesco, and Vaughn Walton.
  - From the USDA-ARS Small Fruit Center: Denny Bruck, Jana Lee, and Jimmy Klick.

## SWD in the news

- [Fly threatens New England blueberry crop](#) (5/4, CBS Boston)

## Regional Monitoring (South to North)

Oregon Public Scouting Program count for two weeks ending on 5/4 (Number of traps checked this period in the crop in parentheses).

*This scouting program & reporting system are being funded by a USDA SCRI grant, A Northwest Center for Small Fruit Research grant; the Washington Red Raspberry Commission & the Washington Blueberry Commission.*

- **Linn County: Strawberries (8):** 3 males/no females. **Blueberries (32): 3 males/15 females.**
- **Benton County: Cherries (4):** no males/2 females. **Wild Habitat (4):** None.
- **Marion County: Cherries (9):** no males/2 females. **Strawberries (18):** None.
- **Clackamas County: Strawberries (6):** 4 males/2 females. **Honeysuckle (2):** None.
- **Multnomah County: Strawberries (6):** 4 males/2 females **Cherries (1): 4 males/19 females.**  
**Blackberries (1): no males/12 females. Salmonberries (6):** 0 males/1 females.

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

- **Clark/Cowlitz/Lewis Counties: Strawberries:** 3 males/ 3 females. **Cherries (8): 5 males/11 females.**

## Three year comparison from a Multnomah County 'Hot spot' (Has a history of high SWD numbers)

- |                        |                 |                |              |
|------------------------|-----------------|----------------|--------------|
| • 2010: 4/11--none     | 4/18--none      | 4/25—3 m /no f | 5/2—none     |
| • 2011: 4/11--none     | 4/18--none      | 4/25—none      | 5/2—none     |
| • 2012: 4/11--7 m /6 f | 4/18-20 m /10 f | 4/25—2 m /4 f  | 5/2—3 m /7 f |

*Other Regional Monitoring Programs have not yet begun reporting numbers*

## SWD 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)

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## Additional, Ongoing Pest Management & IPM Information

### **Diseases**

- **Scout for: [Phytophthora Root Rot](#) raspberries** There are reports of primocane collapse in regional fields that is suspected of being caused by Phytophthora.

### **Insects/Mites**

- **Scout for: [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.*
- **Scout for: [Raspberry Beetle](#), northern raspberries.** This small beetle can cause fruit damage and be a major contaminant in northern raspberry fields.

- **Scout for: Root Weevils, strawberries.** Larvae of [Black Vine](#), [Rough Strawberry](#), [Strawberry Root Weevils](#) are now being recovered from some strawberry fields.
- **Scout for: [Blueberry Gall Midge](#), southern blueberries.**
- **Scout for: Mites in raspberries: [Twospotted mites](#)**
- **Scout for: [Winter Moth/Bruce Span Worm](#) blueberries**
- **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.*
- **Scout for: [Strawberry Crown Moth](#) southern strawberries:** *Infested plants will had a weakened crown and often will break off with a pull on the top growth.*

## Management Material Resources

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- [Blueberry weed control: late spring & summer options](#) (5/1, MSU Extension)

## Nutrient Management

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- **Blueberries:** [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).

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## Industry News/Resources

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### U.S. Processed Raspberry Marketing Order is Approved

Great News!!

- [Click here](#) for the official news in the Federal Register.

### Newsletters/ Berry Reports

- [BC Blueberry IPM Newsletter](#) (5/4) *Weekly by Carolyn Teasdale, [ES Cropconsult](#). Sponsored by the BC Blueberry Council.*
- [New Jersey Blueberry Bulletin](#) (4/30) *Weekly by Gary Pavlis, Rutgers blueberry agent.*
- [Michigan State Extension news for Blueberries](#) (5/1)
- [The Source](#) (5/2) *Market reports from The Produce News*
- [Imperial Frozen Foods Newsletter](#) (5/3)
- [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. 5/5--**Most recent entry: Sap Feeding Beetles on Strawberry** *Reports on recent insect and disease research & observations in California.*
- [Team Rubus](#) by Gina Fernandez, North Carolina State Small Fruit Specialist. **Most recent entry: 5/3—Michigan & New York growers loose crops to cold temps** *Reports on issues in blackberries and raspberries from the Southeast.*
- [The NC Blueberry Journal](#), by Bill Cline, North Carolina researcher & extension specialist, **Most recent entry: 4/16—Glyphosate herbicide injury in blueberries** *Reports on issues in blueberries from the Southeast.*

### Research/Breeding

- [Grower experience with blackberry adjustable trellis](#) (5/4, Growing Produce)
- [Underestimating impact of climate change on plants](#) (5/3, Western Farm Press)
- [Raspberry varieties going gold & crimson](#) (5/2, Western Farm Press) *New releases from the Cornell Program*

### Health

- [How blueberries protect the body](#) (5/2, Fox)

## Food Safety

- [FDA missed deadlines may continue](#) (5/6, The Grower)
- (Canada) [Streamlining measures will reduce food safety regulations 'red tape'—Health Canada](#) (5/2, Health Quality News)

## Labor

- [Labor supply probably adequate in 2012](#) (May, Fruit Grower News)

## Technology

- [GPS-guided assisted steering system introduced](#) (The Grower)

## The West

- (Cal) [Strawberry growers shocked by loss of Midas](#) (5/2, Growing Produce)

## National

- [Watermelon, peaches, blueberries ramp up in Georgia](#) (5/4, The Packer)
- [Despite freeze, Georgia ready to bring as many as 60 million pounds of blueberries to market](#) (5/4, The Produce News)
- [Birds binge on Florida blueberries](#) (5/2, The Grower)
- [Blueberries in season at McDonald's](#) (5/7, The Packer)

## International

- (Spain) [Robot for strawberry harvesting ready for marketing in U.S.](#) (5/3, FreshPlaza)
- (Argentina) [Independent fruit group makes strides \(for better maritime & aerial transport conditions\)](#) (5/4, FreshFruitPortal)

## **Classifieds**

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- *(third & last week running)* **For Sale:** [Mclauchlan 500 berry washer](#) plus 15 foot inspection line. Great condition, all parts intact & working. Photos available. Located in Tacoma, WA. Contact Dick 253-318-9763, [dick@terrysberries.com](mailto:dick@terrysberries.com)

## **Event Calendar**

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

- **May 10 & 11— Western Food Safety Summit** ~ Hartnell College, Salinas, CA. [Click here for agenda and registration information](#).
- **May 23— WSU SWD Workshop** ~ 1-3 pm, WSU Mt. Vernon Northwest Washington Research and Extension Center 16650 State Route 536, Mount Vernon, WA. No cost, RSVP to Colleen Burrows by [email](#) or phone (360) 676-6736 ext. 22. [Click here](#) for more information.
- **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.

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

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## **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 mummyberry and treat as needed.
- Scout for leafroller larvae feeding.
- Plan for pre-bloom aphid control where scorch virus transmission is an issue.
- Scout for virus symptoms & send in samples for testing as needed.
- Bring in bees around 10-15% bloom.
- Scout for scale insects.
- Scout for weevil notching.

### **Blackberries**

- Can apply phosphite material for Downey Mildew prevention in Boysens and Kotatas.
- Scout for virus symptoms & send in samples for testing as needed.
- Burn back primocanes as needed.
- Bring in bees around 10% bloom.

### **Evergreen Blackberries**

- Scout for and treat as needed for Blackberry rust.

### **Raspberries**

- Burn back primocanes as needed.
- (northern areas) Scout for Clay Colored weevils.
- Scout for virus symptoms & send in samples for testing as needed.
- Can apply a phosphite material for stronger root growth and root rot prevention.
- Scout for Yellow Rust and assess treatment options.
- Scout for spider mites and treat as needed.

### **Strawberries**

- (Southern strawberries) Can scout for Strawberry Crown Moth larvae.
- Can apply phosphite materials to strengthen root systems
- Can apply fungicide at 10% bloom.
- Scout for weevil adults and notching (South).
- Can apply slug bait.
- 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**

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

[05-01-12](#)

[04-24-12](#)

[04-18-12](#)