

Small Fruit Update



News and opinions from [Peerbolt Crop Management](#) and [BerriesNW](#) sent out weekly during the growing season, and sporadically when we have something to share in the off season.

June 29, 2010

Table of Contents

[Regional Reports](#)
[Spotted Wing Drosophila Update](#)
[Industry News/ Resources](#)
[Pest Alerts](#)
[New Meeting Info](#)
[New Pest Management Info](#)
[Crop Protection Materials Info](#)
[Ongoing Pest Management Info](#)
[Crop Work](#)

Other links

[Video link of the week](#): Costco's CEO talks about buying blueberries from Chile.

Innovation Videos

- Modular Automated Cooling system (MACS) for berries from Hawkins Engineering in Watsonville: [Click here](#).
- Harvesting blueberries for fresh market last week in New Jersey using BEI's forced air machine harvester: [Click here](#).
- A similar BEI harvester picking fresh market raspberries in the northwest last year. [Click here](#).

Upcoming Meetings

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

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

- From **Mark Sweeney**, Berry Crops Specialist with the British Columbia Ministry of Agriculture: "The warm, wet conditions this week are ideal for Anthracnose. If not done already, it would be good for growers to get a last application of Pristine or Switch on Bluecrops. SWD numbers continue to be quite low in most areas, but as we get into raspberry harvest and blueberry fruit colouring, growers are planning control programs."
Recommendations for BC SWD management can be found at http://www.al.gov.bc.ca/cropprot/swd_management.pdf "
- **Blueberries:** (6/28) Blueberries are growing like crazy and aphids are starting to build again in fields treated earlier. Lots of new soft tissue to attract them. A return to warm, wet weather is not what we need in this crop either right at the moment. Dukes and Reka continue to colour but size may be an issue in some fields. Bluecrop continues to look good.
- **Raspberries:** (6/28) Some raspberries were machine picked on 26th in Eastern end of Fraser Valley and very limited in Abbotsford. Not much coming off and that which did was soft. As mentioned last week, most activity will begin towards week end. The rain of the 27th and today is really throwing a wrench into things and is not what we need right

Disseminating information for:

Washington

[Washington Red Raspberry Commission](#)
[Washington Blueberry Commission](#)
[Washington Strawberry Commission](#)

Oregon

[Oregon Raspberry & Blackberry Commission](#)
[Oregon Blueberry Commission](#)
[Oregon Strawberry Commission](#)

British Columbia

[Fraser Valley Strawberry Growers Association](#)
[Raspberry Industry Development Council](#)
[B.C. Blueberry Council](#)

now. Had up to 18mm(3/4 inch) in Eastern valley yesterday. Warm temps (16-20C) as well. Not a good mix. Who's writing this script anyway?! Smoking gun is mites. We're really just holding our breath on this threat after cleanups.

Whatcom County, Northern Washington

- **Blueberries:** (6/26) Blues sizing a little slower than I would hope. Starting to think that Duke and Reka are done and will just color up from here. Bummer. Growth is fantastic pretty much all across the varieties. Some complaints about Elliott but we know that is just its normal growth habit. Aphids still pretty universal. Low worm pressure this week. SWD still not being observed in any significant population. Weather kinda sucks, hint of rain this morning and 30% chance Sunday / Monday.
- **Raspberries:** (6/26) Very first raspberries got picked yesterday. Minimal amount of fruit coming off and a lot of bloom on the catcher plates. Only pockets of berries ready for harvest. Most of the fruit seems to be getting welded to the plant already. WAY too early for clinging like that. They act as if they have already seen a lot of heat, and we know what a joke that is. Hopefully, it is just the fact that they are not ready, and they will pick like normal when the actual season starts. My observation is that there is a fraction of overripe fruit on the tops of the arcs and none of it is on the ground, even after a heavy wind yesterday. It's about the only strike we have left against us (besides quality) -- getting a crop to fruition and not being able to pick it without thrashing the plants. Mites are starting to build. so watch for a blowout after cleanup insecticide.
- **Strawberries, raspberries, & blueberries:** (6/29) Journey into Mystery used to be a comic book. Strawberry harvest crawling along, not done with the first pick of Hoods. Picking raspberries now also, the first time I can remember these two harvests being timed like this. Finishing up night cleanup in raspberries, still no SWD in the traps; however, I have seen a lot of OBLR, and it's still tough to control the mites. We need another material or two, like Zeal or Agrimek. Raspberries holding on tight, guess we could use some warm sun. Strawberry quality good, but volume looks down. Blueberries filling and ripening, should be good quality and low volume. Watch for birds--the robins, starlings, and cedar waxwings are out in force.

Skagit County, Northern Washington

- **Blueberries:** (6/28) Blueberries are turning again, albeit very slow, and, as others have mentioned, size looks to be an issue in Duke and Blue Jay. Aphids abound but few worms and, so far, no SWD's. Mummyberry (although I've never seen it expressed this way) or green fruit rot (whichever it is), is very pronounced in Blue Crop, not so much in other varieties. A strange leaf curl in Rubel I cannot explain. Sooooo many mysteries, so few answers. Moving pick date back again. Now I think we're behind last year as far as timing goes. New growth looks great in top and new shoots, but crop is not sizing like it should. Could use warm (*not hot*) days with some sun light to bring up sugars and aid chlorophyll production. New growth can't seem to turn green for lack of sunshine!!
- **Raspberries:** (6/28) Raspberries are very sporadic in timing and quality.
- **Strawberries:** (6/28) Strawberries are in full swing (pretty much), quality good, crop is down.

Willamette Valley, Oregon and SW Washington

- **Blueberries:** (6/29) Dukes are starting for fresh market later this week. Probably some already coming in but then there are other fields that might be 10 days off from starting. The mid season varieties still look excellent for yield and quality for the most part. The late season is mixed with some great Elliott, Liberty, and Aurora fields but also some pollination problems in some of the late varieties. That's where we might start dropping off in production. No major bug or disease problems right now. SWD applications have cleaned out a lot of aphids and other insects, both good and bad.
- **Blackberries:** (6/29) My best guess on harvest start for Marions is July 8. That could be early, but better to be prepared. I've eaten some Marions that are not real sweet but good enough. A few people have water going on Marions and Kotatas. If you are going to water do it now before there is very much black fruit. In a lot of Marion, Boysen, and Kotata fields there are enough aphids to spray—another effect of our long cool, wet season. Evergreens are approaching full bloom. Hope we do not get much in the way of hot temperatures, seems like the fruit is more exposed than usual this year.
- **Raspberries:** (6/29) Raspberry harvest is ongoing. The fruit is coming off slowly due to the long bloom period and the cool harvest weather. Some good quality fruit coming in, just in fairly low quantities.

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

Field Day / Meeting Information

- **June 30 — OSU Caneberry Field Day:** 1-5 pm at the North Willamette Research Station in Aurora. [Click here](#) for the agenda and other details.
- **July 8 — PARC Agassiz Berry Field Day,** 2-4 pm at the PARC Abbotsford Farm, 510 Clearbrook Road, Abbotsford. Updates on raspberry & strawberry breeding programs, blueberry cultivar evaluations, Spotted Wing Drosophila, berry

research and industry issues...and ice cream too! For more information contact Chaim Kempler, 604-796-1716
Chaim.Kempler@agr.gc.ca.

- **July 8 — WSU Mount Vernon NWREC Field Day and NW Agricultural Research Foundation Advisory Meetings** ~2-8 pm. [Click here](#) for attached schedule of events.
- **July 14 — OSU Blueberry Field Day:** 1-5 pm at the North Willamette Research Station in Aurora. Details TBA.
- **New Information--July 14 — UC Davis Precision Ag Workshop:** Full day at the UC Davis campus. \$50 registration fee. [Click here](#) for details. "The workshop will cover fertility and yield variability, practical uses of remote sensing, soils electrical conductivity, yield monitors, and site-specific weed control. There also will be an overview of concepts and techniques used to identify and manage in-field variability."
- **July 27–29 — 3rd annual PNW Engineering Solutions for Specialty Crops Conference~** Tri Cities, WA. Topics to be covered include: the path and cost of commercialization, alternative equipment power sources, data collection and decision assist technologies, format will include presentations, open mike, roundtable discussions, field tours and participation at the WSU Sunrise Orchard Field Day. [See site for details.](#)

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

Industry News/Resources

Newsletters

- **The Source**, market updates from The Produce News for 6/28: [Click here](#).
- **B.C. Blueberry Council Blueberry IPM Newsletter** for 6/27: [Click here](#).
- **Michigan State IPM Fruit Newsletter** for 6/29: [Click here](#).
- **Michigan State Blueberry Newsletter** for 6/29: [Click here](#).
- **New Jersey Blueberry Bulletin** for 6/23: [Click here](#). Very interesting insights into blueberry fruit size. A partial quote: "Obviously the larger berries had many more seeds.... I believe the take home message is that if a grower feels his fruit size is not optimum, it might be a good time to evaluate his pollination practices."

West

- **Northwest blueberry producers survive weather, anticipate good crops:** [Click here](#). (6/24, Produce News)
- **June gloom not so fun for Whatcom farmers...berries appear to be on track, but seed potato planting delayed:** [Click here](#) (6/27, The Bellingham Journal)

National

- **Fruit varieties: Identity crisis in the produce aisle:** [Click here](#). (6/24, Los Angeles Times)
- **Summer jobs on the farm in danger?:** [Click here](#) (6/24, The Readingeagle.com) This relates to the proposed federal legislation to try and prevent the abuse of migrant farm children.
- **Researcher confirms blueberries can improve cardiovascular health:** [Click here](#) (6/24, Physorg.com)
- **Michigan berries and cherries promise to be early, plentiful and tasty this year:** [Click here](#) (6/24, freep.com)
- **California Giant Berry Farms takes its berries to The Big Apple:** [Click here](#) (6/24, freshplaza.com)

International

- **World's biggest collection of berries and fruits faces axe:** [Click here](#) (6/26, The Independent)
- **Chile achieves entry of blueberries into India:** [Click here](#) (6/24, Freshplaza.com)

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

Pest Alerts

- **[Anthracnose Ripe Rot](#), northern blueberries.** See Mark Sweeney remarks in the B.C. regional report above.
- **[Orange Tortrix Leafrollers](#), southern blackberries and raspberries:** The larval hatch that causes our major crop contaminant problems has started in caneberry fields in SW Washington and Oregon. Fields that have been recording high adult pheromone trap counts are at high risk of having larval contaminant problems at harvest. Control materials containing active ingredients specifically targeted at leafroller larvae, such as *Bacillus thuringiensis* and Spinosad, are much more effective on these larvae when they're small. If the bees are out of the field, a broad spectrum insecticide is also an option.
- **[Birds](#), blueberries:** Have bird management tactics in place and check to evaluate their effectiveness.

Pest management---Spotted Wing Drosophila Update for 6-29-10

This Update is a collaborative effort with contributions OSU, USDA-ARS, WSU, and Peerbolt Crop Management

- [Click here](#) for information links from PCM.
- [Click here](#) for the OSU SWD website.
- [Click here](#) for the BC Ministry of Agriculture and Lands SWD website.

- [Click here](#) for the WSU, Mt. Vernon SWD website.

Field Sanitation. A key to managing SWD is going to be keeping fields as clean of potential fruit hosts as possible. Getting improved fruit handling and cull disposal protocols in place early could mean the difference between a successful season and a train wreck. To the extent possible, remove any intact, over-ripe, and/or culled fruit from areas in and around the fields.

Urban Site Infestations. In contrast to our field trapping information, which so far has shown SWD numbers at slowly increasing but low numbers, four urban sites in Western Oregon and Washington have been confirmed to have very high SWD trap counts as well as fruit that is heavily infested with SWD larvae. The fruits involved are cherries, raspberries, and strawberries. One inference that can be drawn from this is that there is a high probability of 'hotspots' in both urban areas and unmanaged habitats that could act as a source for a large number of SWD to move into a commercial field when the fruit is at the vulnerable stage.

Pesticide tank mixes. In an effort to manage the risk involved with this new 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.

SWD Management Recommendations Updated 6/22/10

Entomologists from the USDA-ARS, WSU, OSU have collaborated to produce updated SWD management plans for blueberries & caneberries. They've been posted on the OSU SWD website.

- For the blueberry management plan, [Click here](#).
- For the caneberry management plan, [Click here](#).

Other related links on the site:

- SWD Chemical control considerations: [Click here](#). Includes many links and information including pollinator conservation information and alert postings)
- Insecticides registered in Oregon & Washington along with relevant SWD management information for each: [Click here](#). (includes relevant MRL issues, PHI's, REI's, efficacy, etc.)

SWD Related News

- (British Columbia) Soft fruit disposal worries farmers: [Click here](#) (6/22 bclocalnews.com)
- (CA) Be on the lookout...San Joaquin County Master Gardeners: [Click here](#) (6/22, UC Davis)

General SWD Comments

- Trap counts continue to increase slowly throughout the entire region from B.C. down through Southern Oregon.
- In the south, more sites are reporting catches as ripe and ripening fruit in the fields increases to attract them and as the weather warms.
- High counts of confirmed SWD larvae have been recovered from fruit in a few urban backyard sites in Oregon and as far north as Seattle.
- A few SWD larvae were also recovered from late season picks of processed strawberries in the southern growing area but not at economically damaging levels.
- There are still no verified reports to date of any crop damage in the Northwest due to SWD.
- Females continue to outnumber males by about 3 to 1.
- Identification of larvae recovered from fruit continues as a serious issue. Some larvae are still being reared out to help in proper identification.
- **This is speculation**, but having an apple cider vinegar trap surrounded by ripe fruit would presumably not be as effective as a trap without the fruit to compete for the fly's attention. At that point would moving traps closer to field edges could work better as indicators? Comments?

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

Northwest Monitoring Weekly Update — North to South

The following information comes primarily from public monitoring programs. Number of crop types, fields and traps varies greatly so the numbers should be viewed as indicators only. This pest can be very site specific. Any treatment decisions should be based on monitoring data/observations gathered directly from the field to be treated & the individual grower's best judgment.

- **British Columbia:** From the 6/27 B.C. Blueberry IPM Newsletter: “Low numbers of SWD flies were caught in Abbotsford, Aldergrove, East Chilliwack, Ladner, Langley, Maple Ridge, Matsqui, Richmond and Surrey fields this week. SWD flies have been caught in blueberry, strawberry and raspberry crops. Most Fraser Valley blueberry fields are not at a susceptible stage to SWD yet. Raspberry fields should be monitored closely as the berries are ripening.”
[Click here](#) for the complete newsletter with a table of trap counts.
- **Whatcom & Skagit Counties, Northern WA:**
WSU Extension in Whatcom & Skagit Counties have organized an SWD public monitoring program placing traps in fields of growers who have volunteered to share information. [Click here](#) to go to an interactive mapping site with trap numbers & locations.
 - **Whatcom County: Raspberry:** 4 males, 5 females. **Blackberry:** 2 males, 4 females. **Cherry:** 2 females.
 - **Skagit County: Raspberry:** 3 males, 7 females. **Blackberry:** 2 females. **Cherry:** 1 male.
- **SW Washington & Western Oregon**
The Washington berry commissions and the Oregon Department of Ag. along with the USDA, OSU extension, and Peerbolt Crop Management have supported and organized the survey from which the following information is taken. Grower identification as well as specific field sites are anonymous. [Click here](#) to go to the PCM SWD site for charts of county quadrants being scouted and regularly updated monitoring data from these counties. [Click here](#) to go to the OSU Extension SWD population county mapping site.
 - **Clark, Cowlitz & Lewis Counties, Southwest WA: Cherry:** 1 female. **Raspberry:** 1 female. **Blackberry:** 1 female.
 - **Multnomah & Washington Counties, OR: Cherry:** 1 male. **Raspberry:** 1 female. **Salmonberry:** 5 males, 3 females. **Blueberry:** 1 female.
 - **Yamhill & Clackamas Counties, OR: Fruiting Honeysuckle:** 2 male, 0 female.
 - **Polk & Marion Counties, OR: Blueberry:** 1 female.
 - **Linn & Lane Counties, OR: Blueberry:** 4 females. **Raspberry:** 1 male.
 - **Douglas County, OR: Cherry:** 2 females. **Peach:** 2 females. **Fig:** 2 females. **Raspberry:** 6 females. **Strawberry:** 6 males. **Blueberry:** 2 males, 7 females.
 - **Jackson & Josephine Counties, Southern OR: Cherry:** 3 males, 61 females, **Peach:** 3 male, 10 females, **Blueberry:** 4 males, 16 females, **Wild Blackberry:** 5 males, 3 females. **Fig:** 4 males, 15 females. **Blackberry:** 3 females.

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

Crop Protection Materials Information

- **Controversial pesticide worries scientists:** [Click here](#) (6/20, NPR) This relates to methyl iodide use on strawberry fields in California.

Ongoing Pest Management Information

Insects/Mites

- **[Aphids/Scorch virus](#) northern blueberries:** The Blueberry Council is, again, providing free Scorch and Shock virus testing to all B.C. blueberry growers. Bloom is the best time to look for symptoms. [Click here](#) for the sample submission.
- **Root Weevils:** For more information on our major pest weevil species, click on the following: [Black Vine](#), [Rough Strawberry](#), and [Strawberry Root Weevils](#).
- **[Twospotted Spider Mites](#), northern raspberries.**
- **[Yellow Mites](#), northern raspberries.**
- **[Strawberry Crown Moth](#), southern strawberries/caneberries**
- **[Clay Colored Weevils](#) northern raspberries.**
- **[Redberry Mite](#) evergreen blackberries.**
- **[Blueberry Gall Midge](#), blueberries.**

Diseases

- **[Alternaria Fruit Rot](#), blueberries.**
- **[Powdery Mildew](#), strawberries.**
- **[Blackberry Rust](#) (Phragmidium Rust) evergreen blackberries.**
- **[Yellow Rust](#), raspberries.**
- **[Shock virus](#), blueberries.**
- **[Scorch virus](#), British Columbia blueberries.**
- **[Mummyberry](#) blueberries.**
- **[Phytophthora Root Rot](#) raspberries.**

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

Crop work

All crops—

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

Blueberries—

- Scout for fruit disease symptoms and/or disorders.
- Scout for leafroller larvae feeding.
- Scout for aphids and treat as needed. In particular in northern growing areas where aphids vector Scorch virus.
- Scout for scale insects.
- Scout for weevils and weevil notching.
- Scout for virus symptoms & send in samples for testing as needed.
- Can apply fungicides for fruit/blossom rot.
- After petal fall, can treat for Alternaria and Anthracnose prevention if needed.

Blackberries—

- Scout for virus symptoms & send in samples for testing as needed.
- Can apply fungicides for fruit/blossom rot.
- Can apply clean up insecticide just before harvest for crop contaminant management.
- Scout for Phragmidium Rust in evergreen blackberries.
- Scout for Cane and Leaf Rust.
- Put out pheromone traps for leafrollers.
- Scout for leafroller larvae and treat as needed to prevent fruit contaminant problems.

Raspberries—

- Can apply fungicides for fruit/blossom rot.
- Can apply clean up insecticide just before harvest for crop contaminant management.
- Scout for Yellow Rust and assess treatment options.
- Scout for spider mites and treat as needed.
- Scout for virus symptoms & send in samples for testing as needed.
- Put out pheromone traps for leafrollers.
- Scout for aphids and treat as needed.
- Scout for leafroller larvae.

Strawberries—processed harvest ongoing in SW Washington and Oregon

- Watch for weak growing areas and scout for weevil larvae, Strawberry Crown Moth larvae, root rots and/or cold damage.
- Scout for virus symptoms/send in sample for testing to confirm.
- Scout for Powdery Mildew and treat as needed.
- Scout for Twospotted Spider Mites and predatory, beneficial mites.
- Scout for aphids.
- Scout for weevil adults and notching.
- Scout for fruit quality issues such as mold.
- Put out pheromone traps for Strawberry Crown Moth in southern fields.

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

Archived Small Fruit Updates

These are Small Fruit Updates from the last month (for older Updates [click here](#))

[06-22-10](#)

[06-15-10](#)

[06-08-10](#)

[06-01-10](#)