

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.

July 6, 2010

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Other links

[Website of the Week](#): **Fruits and Veggies More Matters** put together by the Produce for Better Health Foundation. Great site! I've got some links to a couple of their stories in the Industry News section below.
[Video link of the week](#): How to check fruit for Spotted Wing Drosophila larvae. Something growers and processors need to be familiar with.
[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

- **Blueberries:** (7/2) Super sizing blues with lots of seeds inside, very slow to ripen. Duke are still pink on back side. We have a lot more bushes going down with viruses as it gets drier. Hail damage has carried all the way to ripeness. Duke were hit the hardest, Bluecrop a bit, but are looking much better. Looks like it is now dry enough to drive through every row everywhere. That was a big problem earlier during the spring monsoons.
- **Raspberries:** (7/2) Lack of yield, some soft, some rot, but good size so far. We're just getting started to harvest. It's very slow going right now, but the expected warm, dry weather next week will change it all. We have forecast highs of 30C (86F) in the Fraser Valley.
- **Strawberries:** (7/2) Strawberries are still going strong with good size and quality, little rot, flavour is OK. It'll be better after sunny days. Most B.C. strawberries are going for fresh, very little for processed.
- **Blackberries:** (7/2) Just flowering with some fruit set already. So far, so good...

Whatcom County, Northern Washington

- **Blueberries:** (7/3) Blues are slowly ripening and the birds have noticed. Very few SWD so far in the traps.
- **Raspberries:** (7/3) Raspberry pick has begun. The fruit's a bit soft. Lots of white petals in the machines, must be due to extended bloom from the cool weather. It maybe hot this coming week, keep an eye on the mites.
- **Strawberries:** (7/3) The first strawberry pick is almost complete with good quality and average yields.

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](#)

Skagit County, Northern Washington

- **Blueberries:**
 - (7/3) Bluecrop has some leaf blotching with the fruit beginning to turn color. Cedar Waxwings abound and starlings are hanging around the perimeter of farms. Duke are beginning to color as well, but I think it will size close to normal, or maybe a little light. Blueberry harvest is later than last year. The overall crop is looking to be about equal to last year.
 - (7/3 Organic production) Finally getting some decent color on organic blues. Our increased fertigation rates and foliar fish applications seem to have overcome the soil moisture at field capacity that may have diluted our earlier fertigation efforts. Elliott berry size looking more uniform than it has in the past two seasons. Now, if we can get them to size up without any sun that will be a neat trick. Dukes do not appear to be sizing normally, and I expect average yield of smaller fruit.
 - (7/2) We're seeing spotty color in Duke and other early varieties. Nothing completely ripe though.
- **Raspberries:**
 - (7/3) We're on the first go around with harvest. Tough fruit and crumbly this time around. Later picks look better, but it's still a light crop.
 - (7/2) Our raspberry harvests have been light. It seemed like the fruit was not willing to let go in the continued cool weather. We had some rot in the receptacles that seemed worse Wednesday than today (Thursday, 7/2). Very much hoping the good weather materializes next week.
- **Blackberries:** (7/3 Organic production) The Black Diamonds appear to have lost all the king berries to frost damage despite wind machine and smudge pot use in early spring, not much tip fruit in evidence. I noticed that the primary buds were empty at bloom. That might be a blessing if the SWD ever shows up. The Chesters look good. They're a little yellow on our sandy soils but coming around with evidently good pollination.
- **Strawberries:** (7/3) They're still coming in with great quality, but even with a prolonged harvest season the crop will be down.
- **Strawberries and Raspberries:** (7/3 Organic production) Strawberries are looking short, raspberries the same. Unseasonable cool nights in Skagit, where's that sun?

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Willamette Valley, Oregon and SW Washington

- **Blueberries:**
 - (6/30) Our Duke pick will begin 7/1. Neighboring farms have brought us small amounts of Duke and Reka fruit. Blue color is evident in all varieties on the farm except the latest ripening (Liberty, Aurora, Elliott). Soil temperatures are finally warm enough for pigweed germination that's emerging through last month's simazine + diuron treatment. Field visits in the area are showing heavily pruned Dukes sizing nicely while moderate and heavy set Duke are smaller. Valley-wide, too much of the Duke fruit is showing a necrosis at the calyx. How will this look in the clam shell?
 - (7/2) At Salem, light showers interrupted the first Duke pick. We will resume on Saturday (7/3). Bluecrop will probably be picked next, although Blueray is also progressing nicely. First big wave of Duke should hit our plant this coming week. Heavy set Duke crops showing smaller size and delayed ripening. All first fruit received has been firm and free of insects and disease.
- **Blackberries:** (7/1) Some Sylvan fields will start to machine harvest very soon. Marions are still looking to start harvest about the 10th, but it is supposed to warm up to the high 80's Tuesday and then in the 90's for at least three days. It'll change the fields and crop quickly. Might be starting earlier than it looks right now. Get the water going. If your blacks aren't watered up now, they'll be even more stressed. Some pollination and dry cell symptoms coming on. Some of it could be box elder bug feeding on single drupelets. Kotatas and Black Diamond are getting very close also. A few SWD in the traps but, with the clean up applications we should be O.K. for now. Have to keep an eye on the later picks when the residual wears off.
- **Raspberries:** (7/2) Seems like we just started, but the picks started almost two weeks ago. Slow going with too much soft fruit but it's coming.

Field Day / Meeting Information

- **July 8 — PARC Agassiz Berry Field Day**, 2-4 pm at the PARC Abbotsford Farm, 510 Clearbrook Road, Abbotsford. Updates on raspberry and 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. [Click here](#) for the agenda and details.
- **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 15— Raspberry Machine Harvesting Field Day:** 1:00-3:00 pm at the machine harvesting plots at Sakuma Bros (on the east side of Avon Allen Road between Cook Road and Benson Road) in Burlington, Washington. There are 200 raspberry selection and variety plots that are fruiting this year, and we will have fruit of these on display. Following the machine harvesting field day, **Tom Walters will have a berry field day at the WSU Mt Vernon Research Center starting at 3:15.**

- **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.](#)

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Industry News/Resources

Newsletters

- **The Source**, market updates from The Produce News for 7/5: [Click here.](#)
- **B.C. Blueberry Council Blueberry IPM Newsletter** for 7/4: [Click here.](#)
- **Michigan State IPM Fruit Newsletter** for 7/6: [Click here.](#)
- **New Jersey Blueberry Bulletin** for 6/28: [Click here.](#) “ ‘Duke’ is wrapping up and ‘Bluecrop’ is moving along. One grower told me he will start ‘Elliott’ by the 4th. That would be a record. The extreme heat has quickened the harvest and bunched the three main varieties together.” **Wow—They’re picking Elliott’s already?**

West

- **Washington state requests disaster relief:** [Click here](#) (7/1, The Packer)
- **(Eastern Washington) Stemilt kicks off blueberry harvest:** [Click here](#) (7/2, The Produce News)

National

- **About the buzz—Pesticide residue on some fruits and vegetables is so high you should not eat them:** [Click here.](#)

International

- **Scottish berry farmers find a gap in the market:** [Click here](#) (7/4, Freshplaza.com)
- **(U.K.) Polytunnels condemned as eyesores:** [Click here](#) (7/4, Telegraph)

Crop Protection Materials Information

- **Real versus fake fungicide resistance:** [Click here](#) (7/2, Western Farm Press)
- **Global MRL issues increasingly tangled:** [Click here](#) (7/2, Western Farm Press)

Pest Alerts

- [Anthracnose Ripe Rot](#), blueberries.
- [Alternaria Fruit Rot](#), blueberries
- [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.
- [Birds](#), blueberries.
- [Phytophthora Root Rot](#) raspberries. With the heat about to hit, we can expect the stress on root systems compromised by root rot to show up as a lot more cane collapse.

Ongoing Pest Management Information

Insects/Mites

[Aphids/Scorch virus](#) northern blueberries, Root Weevils: [Black Vine](#), [Rough Strawberry](#), and [Strawberry Root Weevils](#), [Twospotted Spider Mites](#), northern raspberries, [Yellow Mites](#), northern raspberries, [Strawberry Crown Moth](#), southern strawberries/caneberries, [Redberry Mite](#) evergreen blackberries, [Blueberry Gall Midge](#), blueberries.

Diseases

[Powdery Mildew](#), strawberries, [Blackberry Rust](#) (Phragmidium Rust) evergreen blackberries, [Yellow Rust](#), raspberries, [Shock virus](#), blueberries, [Scorch virus](#), British Columbia blueberries, [Mummyberry](#) blueberries

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Pest management---Spotted Wing Drosophila Update for 7-6-10

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.

Management material Update

- **GF-120, an attract and kill bait**, now has a Special 2ee label for Oregon and Washington with recommendations for the suppression of SWD in caneberries and other fruit crops: [Click here](#) for the label.

SWD Related News

- **(Canada) Rotting Fruit imports leave bad taste:** [Click here](#) (6/29, Kelowna Capital News) A little disturbing in that there's an allegation that cherries imported from California had SWD but no verification.
- **China apples allowed in to Australia despite grower SWD concerns:** [Click here](#) (6/30, Weekly Times)
- **Fighting the spotted wing fruit fly:** [Click here](#) (6/30, letter to the Oregonian) Pretty good letter...
- **(Sonoma County, CA) More Spotted Wing Drosophila info:** [Click here](#) (6/28, Wordpress.com)
- **British Columbia Cherry industry SWD monitoring and information:** [Click here](#) (6/30) Scroll down a little. They've got their own monitoring/trapping information for their cherry growers. So far—6 males, 17 females collected.
- **Northern growers on watch (for SWD):** [Click here](#) (Moose River News)

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General SWD Comments

- In Oregon and SW Washington we are moving into the beginning of raspberry, blueberry, and blackberry harvest season. Some SWD larvae are being recovered, and we're getting the first opportunity to see how the monitoring/trapping of adults correlates with the actual presence or absence of economically damaging SWD larvae in fruit .
- This week there were a number of developments that illustrated the 'still in development' nature of our present SWD trapping/monitoring tools. These developments included:
 - Emergence of SWD adults from cherries collected from an organically managed orchard on 6/17. There is a monitoring trap a few trees away that has had no catches. Subsequent sampling of fruit in the orchard showed a light SWD infestation of ripening fruit.
 - Recovery of likely SWD larvae from some late harvests of strawberries in three locations. Only one of these infestations was deemed economic, the other two were just a couple of berries. Traps located in these fields had no catches. The larvae are being reared out to confirm the species I.D.
 - A conclusion is that the attractiveness of the apple cider in the SWD trap is being overwhelmed by the increased presence of ripe fruit in the field.
- While continuing to collect monitoring data, researchers are exploring various trap baiting materials, various trap height placements, and various trap field densities to improve our ability to monitor SWD, and better predict economic crop thresholds, and treatment types, and timing.
- This is a learning year for all of us—researchers, extension agents, growers, and industry consultants.
- A high priority this year is to evaluate SWD adult trap data, and various management protocols, by correlating them to SWD larval presence in the fruit and related economic crop losses. This correlation will help us refine management protocols, lower treatment costs, and lower the economic and environmental risks in the future.
- Our first and foremost goal remains minimizing crop losses for the industry this year.
- All are encouraged to be conservative, pro-active, and responsible in making their management decisions this year.
- More sites continue to report catches as ripe and ripening fruit in the fields increases.
- Dr. Amy Dreves, OSU, estimates that we're into the second generation of SWD in the Oregon and SW Washington area.
- We're anticipating increased pressure on the crops as the fly moves into later generations in ever increasing numbers.
- Trials are ongoing on management material efficacy and residual length for both conventional and organic cropping systems.

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 and the individual grower's best judgment.

- **British Columbia:** From the 7/4 B.C. Blueberry Council's IPM Newsletter: "SWD flies were caught in Abbotsford, East Chilliwack, Matsqui and Pitt Meadows this week. SWD flies have been caught in blueberry, strawberry and raspberry crops. The majority of SWD flies being caught are female flies."The majority of traps are in blueberries but some are also in strawberries and raspberries.
 - Total traps: 104. Total males: 7, Total females: 21.

[Click here](#) for the complete BC newsletter with a table of trap counts.

- **Whatcom and Skagit Counties, Northern WA:**

WSU Extension in Whatcom and 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 and locations.

- **Whatcom County: Raspberry:** 3 males.
- **Skagit County: Blackberry:** 1 male 1 female. **Cherry:** 3 males, 3 females. **Raspberry:** 2 males, 2 females. **Strawberry:** 2 males, 4 females.

- **SW Washington and 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. There are well over 600 traps in total. [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 and Lewis Counties, Southwest WA: Blueberry:** 1 female **Cherry:** 1 male, **9 females.** **Raspberry:** 1 female. **Strawberry:** 1 female.
- **Multnomah and Washington Counties, OR: Blackberry:** 1 male, 3 females. **Raspberry:** 4 males. **Salmonberry:** 3 males, 1 female. **Strawberry:** 1 female.
- **Yamhill and Clackamas Counties, OR: Caneberry:** 1 female. **Raspberry:** 1 male, 1 female.
- **Polk and Marion Counties, OR: Cherry:** 1 male, 1 female.
- **Linn and Lane Counties, OR: Blueberry:** 4 females.
- **Douglas County, OR: Blueberry:** 4 males, **14 females.** **Cherry:** 2 males, 2 females. **Fig:** 2 males, 4 females. **Peach:** 1 female. **Strawberry:** **12 males,** 3 females.
- **Jackson and Josephine Counties, Southern OR: Blueberry:** 1 female. **Cherry:** 1 female. **Peach:** 2 females. **Raspberry:** 2 females. **Strawberries:** 1 male, 1 female. **Wild Blackberry:** 1 female.

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Ongoing Spotted Wing Drosophila Management Information

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. 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 and 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 and Washington along with relevant SWD management information for each: [Click here](#). (includes relevant MRL issues, PHI's, REI's, efficacy, etc.)

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Crop work

All crops—

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

Blueberries—Harvest beginning in all regions

- Scout for fruit disease symptoms and/or disorders.
- Scout for leafroller larvae feeding.
- Scout for aphids and treat as needed, particularly in northern growing areas where aphids vector Scorch virus.
- Scout for scale insects.
- Scout for weevils and weevil notching.
- Scout for virus symptoms and send in samples for testing as needed.
- Maintain bird damage management.

Blackberries—Harvest beginning in Oregon and SW Washington

- Monitor fruit for the presence of SWD larvae.
- Scout for virus symptoms and send in samples for testing as needed.
- Can apply fungicides for fruit/blossom rot in late season crops.
- 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—processed harvest ongoing in SW Washington and Oregon

- 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 and send in samples for testing as needed.
- Put out pheromone traps for leafrollers.
- Scout for aphids and treat as needed.
- Scout for leafroller larvae and other insect crop contaminants.
- Scout for ripe fruit fungal diseases.

Strawberries—Processed harvest ongoing in northern Washington. Processed harvest over in Oregon

- 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 fruit quality issues such as mold.
- Have pheromone traps out for Strawberry Crown Moth in southern fields.
- Check weak areas for root weevil larvae, Strawberry Crown Borers and/or root disease problems.
- Watch for weevil leaf notching and plan for weevil management if needed.
- Plan for post-harvest treatments for SCM, SWD and/or weevils as needed.

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Archived Small Fruit Updates

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

[06-29-10](#)

[06-22-10](#)

[06-15-10](#)

[06-08-10](#)