

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.

April 29, 2014

Week 18

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- [Judge Throws Out 'Hot Goods' Settlements](#) (4/24, Capital Press)
- Oregon: [Blueberry growers go extra mile for South Korea customers](#) (4/22, Capital Press)
- Chile: [Blueberry growers cotton on to benefits of packing on arrival](#) (4/28, Fresh Fruit Portal)

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

A few items of note:

- Last year on May 2-6 the Willamette Valley had high temperatures of 80, 82, 83, 85 and 80. That set us up for having a huge amount of Duke blueberries ripening at the same time.
- This year on April 30th and May 1st we're forecast to have highs in the mid 80's but by May 2nd we're down to 70 and May 3rd down to 60-65.
- Should see a lot of bloom come out but not as dramatic of an effect as in 2013. The Marionberry and Black Diamond blackberries are just starting bloom now. This should concentrate their early harvest as it could do for strawberries, too.
- **Monthly Willamette Valley berry grower and fieldman morning meetings.** Starting on May 29th, We're scheduling an 8am grower/fieldman meeting for the last Thursday of each month at the North Willamette Research & Extension Center. More on that later.
- **SWD:** On the next page is a chart comparing our trap catches for the last three weeks over the last five seasons. They confirm our suppositions that the cold winter would lower overwintering populations of SWD. It's an indication that SWD population buildups will be later and pressure could be lower this year than the last couple.

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

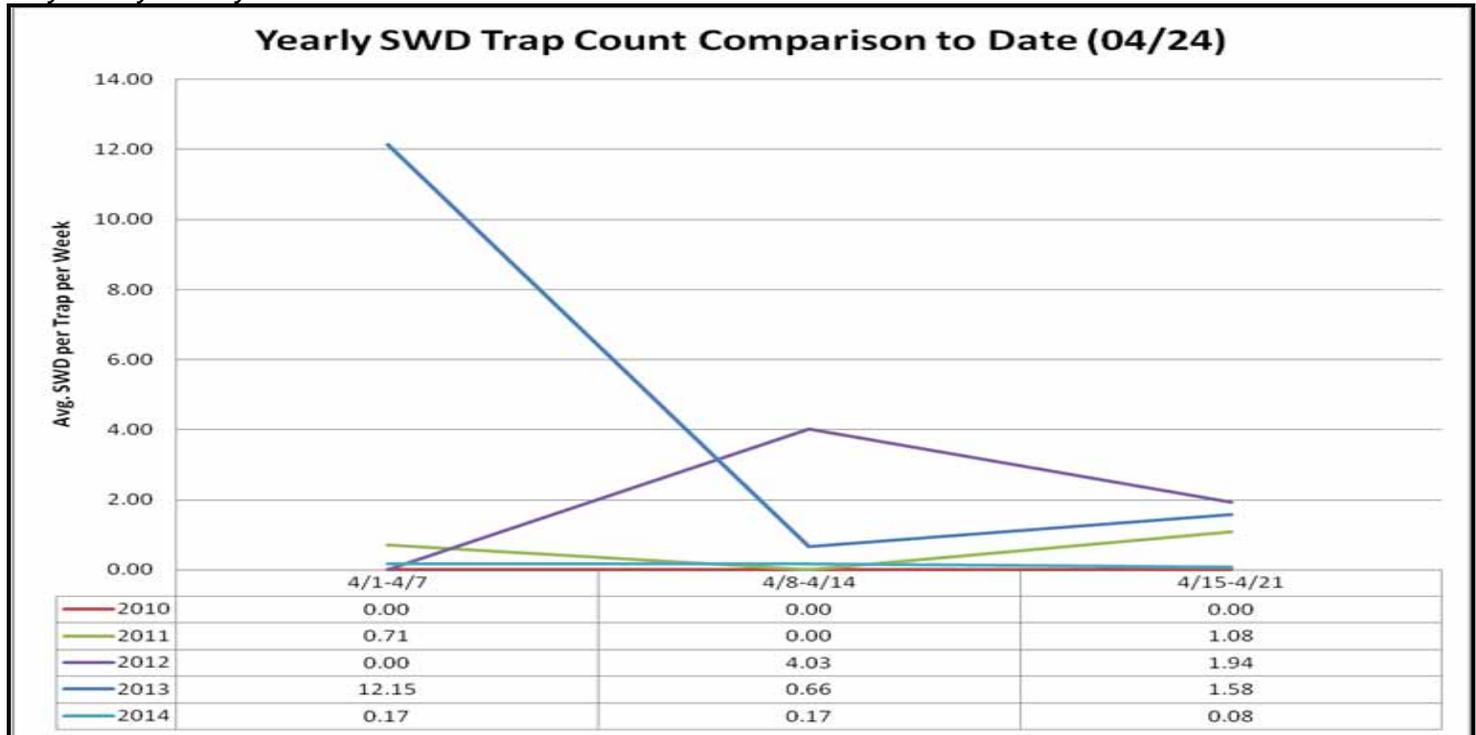
[Fraser Valley Strawberry Growers Association](#)
[Raspberry Industry Development Council](#)
[B.C. Blueberry Council](#)

National

[North American Blueberry Council](#)

SWD early season trap count comparison

This data is from our grant funded public SWD trapping network. Right now the 2014 Willamette Valley trend is much closer to 2010 than the higher risk years of 2012 & 2013. This is likely because of the much colder, winter weather. One of the major factors we'll need to get used to with SWD is that the pressure/crop risk is going to vary from year to year.



Regional reports

British Columbia, Fraser Valley

From the Blueberry IPM Newsletter for 4/26: "Bloom has begun this week in some Fraser Valley blueberry fields. Percent bloom varies depending on variety and region:

- 1-10% bloom: 1613/Hardiblu, Earliblu, Bluecrop, Duke, Reka, Draper.
- Pink tip: Elliott, Liberty, Aurora.
- **Blueberries:** (Monday, 4/28) The crop is moving along slowly. Should pick up this week. Need some heat for pollination on early varieties. A hail storm rolled through Abbotsford area on Thursday. Not too many flowers knocked off bush. More hail came through on Saturday. We'll have to wait to see if there's any internal damage. The crop is still looking good otherwise.
- **Blueberries:** (Monday, 4/28) We're expecting a significant increase in bloom (could be a real heavy push) on blues this week with the promise of very much warmer temperatures. Development kind of stalled last week with cool, intermittently wet weather. The last few days we've even experienced some localized hail which is always nerve wracking. No reports of serious damage though.
- **Blueberry Weevil Alert:** I'm amazed at the amount of weevil infestations I run into in the blueberry fields these days. I was in a young Duke field (4 yrs old) on a light sandy soil. We were digging into the root zone and seeing large numbers of black vine weevil grubs. Growth was really stalling in this field with the grub feeding, especially on the light soil. In the past we've had a hard time dealing with control of these pests due both to a lack of products, and I think, some disregard for the problem. But this is a significant issue in a lot of our fields. It can be a silent killer. Hopefully, with Exirel and the addition of other products we can reduce the impact these insects are currently having.
- **Raspberries:** (Monday, 4/28) Raspberry growth is improving and the change in weather should get things moving faster. I expect to see some yellow rust show up this week after all the wet weather of the last week. Mite numbers are currently staying low in most fields I see.

Northern Washington, Whatcom County (Sunday, 4/27)

Things seem to be in neutral here in Whatcom. Things are progressing very slow. Fungal pressure is bound to increase with warmer temps.

- **Raspberries:** More winter damage on second and third year raspberries (relative to 1st and older) than I've ever seen.
- **Blueberries:** Early blueberries are coming into bloom, but for sure, no self respecting honey bee is out!! Fungicide work to do as soon as we can get in the field.

Western Oregon, Willamette Valley

- **Strawberries:** (Friday, 4/25) Bloom is between 10 and 20% on Totems. First bloom sprays are on. Crop looks good for now. Harvest should start about the first week of June. Fresh market Albions are still a couple of weeks away from the first ripe fruit.
- **Blackberries:** (Monday, 4/28) Very little field work got done last week, it was Easter week and too wet to do much of anything. This week should be a different story. There will be some planting going on and pre bloom sprays on Silvan and Black Diamond. Black Diamonds have a few scattered blooms, according to my records (not my memory) Black Diamonds were 1% bloom on April 29 last year. I expect them to be 1% a few days later this year. Which should mean harvest will be earlier than normal but not as early as last year.



Above--Black Diamonds on April 25, 2014.



As promised last week, a good looking Marionberry field on April 25, 2014. Near Dayton, Oregon

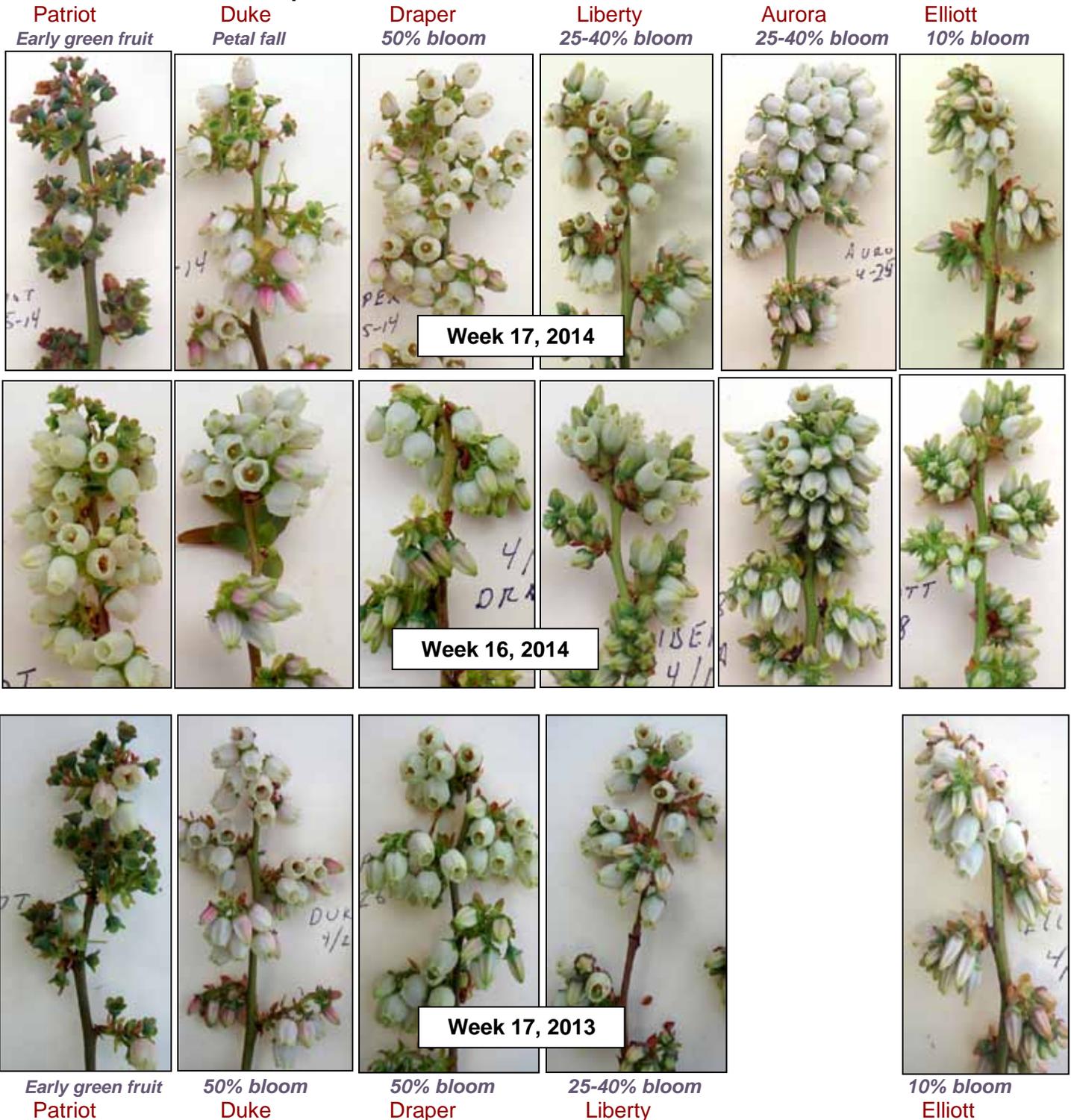
- **Blueberries:** (Monday, 4/28) Duke bloom should finish this week especially with a couple of days in the mid eighties coming up. Lots of bee activity this past week between downpours and even the occasional

hail storm. No major damage has been reported. Crop continues to be in good shape. Right now it seems like everyone's trying to catch up with bloom sprays they couldn't get on last week.

Blueberry floral bud development over the past week & compared to same week in 2013

Western Willamette Valley

Top – 4/25/14 Middle – 4/18/14 Bottom – 4/26/13



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Grower resources

- [New tests measure soil health](#) (4/21, Good Fruit Grower)
- [Four reasons to manage the orchard floor](#) (4/21, Good Fruit Grower)
- [How to succeed with highbush blueberry pollination](#) (4/24/13, MSU Extension) *Good information but don't go by their hive per acre figures. Most growers & researchers in the Northwest recommend higher numbers.*
- [Brown Marmorated Stink Bug history and identification video](#) (4/8/13, YouTube-Northeast IPM) *Excellent intro video to this potential northwest pest.*

Spring Weather Risks

- **Pictorial blueberry growth stages with temperature damage thresholds**
 - [Blueberry growth stages and critical spring temperatures](#) (Michigan State Extension)
The relevant stages and temperature thresholds from the chart:
- § **Late pink bud:** "Individual flowers fully developed. Expanded corollas are now white but still closed. This bud stage can tolerate 24 to 27°F (-4.4 to -2.8°C)."
- § **Full bloom:** "Most of the flowers on the bush have opened. The bloom stages can tolerate 28°F (-2.2°C)."
- § **Petal Fall:** "The corolla tubes are falling off the flowers, revealing small green fruit. This is the most vulnerable stage to freeze injury. Damage can occur at 32°F (0°C)."

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Industry news/resources

Newsletters/ berry reports

- [BC Blueberry IPM Newsletter](#) (4/26) Weekly by [ES Cropconsult](#). Sponsored by the BC Blueberry Council.
- [Whatcom Ag Monthly](#) Produced by WSU Whatcom County Extension. Includes excellent berry crop information.
- [The New Jersey Blueberry Bulletin](#) (4/21) A weekly grower update from Gary Pavlis, Rutgers Extension agent.
- [National Berry Report](#) Daily fresh market berry reports. Hosted by the California Strawberry Commission, this report is generated from data from the USDA Agricultural Marketing Service and is updated daily.
- [Export Market Update](#) (4/25) from General Produce Company
- [Market Report](#) (4/28) from General Produce Company
- [The Source](#) (4/21) Market reports from The Produce News.

Magazine/website compilations

- **The Packer:** [blueberries](#), [blackberries](#), [raspberries](#), [strawberries](#).
Recent stories and fresh market pricing for the various berries from The Packer.
- **Growing Produce:** [recent berry articles](#).
- **Fresh Fruit Portal:** [blueberries](#), [blackberries](#), [raspberries](#), [strawberries](#).
Recent stories for the various berries from Fresh Fruit Portal.

Berry research blogs

- [Strawberries and Caneberries](#) by Mark Bolda, UC Davis Berry Extension Agent. **Recent entry:4/21-- Unusual flare-up of Leaf Blotch Disease in strawberry** *Reports on recent insect and disease research and observations in California.*



- [Team Rubus](#) by Gina Fernandez, North Carolina State Small Fruit Specialist. **Recent entry:4/22 – Cane Damage, what to do?** *Reports on issues in blackberries and raspberries from the Southeast.*

Ag Research

- [USDA announces \\$66 million in specialty crop block grants available](#) (4/22, Growing Produce) *Almost 2 million for Oregon and 4.3 million for Washington State. Woo hoo!*
- [Drought chokes ag research efforts in California](#) (4/17, Western Farm Press)

Pest management

- [Researchers ask: How damaging is spotted wing drosophila to organics?](#) (4/25, The Grower)
- [B.C. berry growers share lessons from worst SWD year ever](#) (March, AgAnnex)

Technology

- Strawberries: [Robotic harvesters may be the future](#) (4/25, The Packer)

Plant Breeding/Intellectual Property

- [Fight continues between UC-Davis and strawberry commission](#) (4/24, The Packer)

Climate/Water

- California: [Drought brings new attention to groundwater](#) (4/23, AgAlert)

Marketing/Business

- [Blueberry benefits resonate with U.S. consumers, restaurants](#) (4/28, Fresh Fruit Portal)
- [‘Walmarting’ organics: Who wins?](#) (4/17, Civil Eats)

North America

- Florida: [Blueberries running late, small supplies driving demand](#) (4/23, The Packer)
- Florida: [Slow start to blueberry season](#) (4/25, Fresh Plaza)
- Florida: [Blueberry trailblazer stays on cutting edge](#) (4/17, Growing Produce)

International

(FFP=Fresh Fruit Portal)

- [Polish Blueberries Photo Gallery](#) (FFP)
- China: [First greenhouse blueberry orchard near Beijing to open in June](#) (4/25, Fresh Plaza)
- Chile: [Innovating process to distribute blueberries](#) (4/24, Fresh Plaza)
- Poland: [Elliot Group produces 500 tonnes of blueberries per year](#) (4/24, Fresh Plaza)



Food safety meetings

OR Blueberry, Strawberry, and Raspberry & Blackberry Commissions

Free Food Safety “Train the Trainers” Workshops—3 hour program

[Click here](#) for all the information and to sign up

- **April 30** — Mary's River Grange Hall, Philomath

Event calendar

- **May 8** —Oregon Strawberry Commission ~ [Langdon Farms Golf Course](#), 6pm. Call 541-758-4043 or [Email](#) Philip Gutt for more information.

- **May 11-13 — International Raspberry Organization** ~ Chuzhou, China. [Contact Henry Bierlink](#) for more information.
- **May 21 — Workshop for Machine Harvesting Fresh Market Blueberries** ~ 9-4pm , [North Willamette Research and Extension Center](#). [Click here](#) for registration & agenda.
- **May 29 — Willamette Valley Berry Fieldman/Grower meeting**, 8am at [North Willamette Research and Extension Center](#). Call or [email](#) Peerbolt Crop Management for information, 503-289-7287.
- **May 29 — National Processed Raspberry Council**, SeaTac Marriott, Seattle, WA. For more information, call Tom Krugman at 360-354-0948. [Click here](#) for the Council's website.
- **June 11 — OSU Strawberry Open House** ~ 1:00-4:30 pm North [Willamette Research and Extension Center](#) (NWREC) *A focus on the breeding program & research for commercial growers. Details TBA.*
- **June 18-19 — Annual Maximum Residue Limit (MRL) Harmonization Workshop** (4/14, Growing Produce) In San Francisco. Organized by the California Specialty Crops Council. [Click here](#) for registration & agenda information.
- **June 26 — Willamette Valley Berry Fieldman/Grower meeting**, 8am at [North Willamette Research and Extension Center](#). Call or [email](#) Peerbolt Crop Management for information, 503-289-7287.
- **July 9 — OSU Caneberry Field Day** ~ 1:00-5:00 pm [North Willamette Research and Extension Center](#) (NWREC) *A focus on the breeding program & research on conventional and organic production systems for commercial growers. Details TBA.*
- **July 16 — OSU Blueberry Field Day** ~ 1:00-5:00pm [North Willamette Research and Extension Center](#) (NWREC) *A focus on the breeding program & research on conventional and organic production systems for commercial growers. Details TBA.*

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Week 18-- Pest management & field work

Pest Alerts

Time to start scouting for: [Yellow Rust](#) Raspberries –



Stages of Yellow Rust (from left) spermagonia, aecia, uredinia: Right now it's mostly in the first stage.

(Middle photo by Carolyn Teasdale, others by Tom Peerbolt)

- Yellow rust is changing spore stages from yellow/orange colored 'blisters' (spermagonia) on the top surface of leaves to 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.

Vector management: [Scorch virus](#) – Areas with confirmed scorch virus present.

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. 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.

Time to scout for: [Shock virus](#) –blueberries.

- Symptoms are becoming visible in many fields in the southern areas.
- 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](#), blueberries.

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

Factors that increase risk of infections:

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



*Secondary Mummyberry Strikes 4/26/13 Left-Liberty; Right-Spartan
Left photo: Tom Peerbolt; Right photo: Jason Myer*

Ongoing Pest Information

- **Scout for: [Azalea Bark Scale](#), blueberries.** *This scale's telltale bright white egg sacs on the lower branches of infested plants are now apparent in some southern blueberry 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.** *Tip damage from this midge is due to begin showing up in southern blueberries. Damage is usually deemed to not be economic except in specific situations like new vigorous fields where gall midge can occasionally cause too much stunting of new growth.*

- **Prime Time to Scout for: Mites in raspberries (northern growing areas):** [Twospotted mites](#) [Yellow mites](#)
- **Prime Time to Scout for:** [Winter Moth/Bruce Span Worm](#) blueberries
- **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: *Plants weakened by SCM can be spotted. Infested plants will had a weakened crown and often will break off with a pull on the top growth.*

Crop Work

All crops

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

Blueberries

- Bring in bees around 10% bloom.
- Apply bloom applications to prevent fruit molds.
- Treat for [Mummyberry](#) as needed. (See Alert at top of newsletter)
- Scout for virus symptoms & send in samples for testing as needed.
- Scout for [leafroller larvae](#) feeding.
- Scout for [Shock virus](#) symptoms.
- Plan for pre-bloom [aphid](#) control where [scorch virus](#) transmission is an issue.
- Scout for [winter moth/Bruce spanworm](#) larvae.
- Scout for scale insects.
- Scout for weevil notching.

Blackberries

- Plan to bring in bees around 10% bloom.
- Plan to apply bloom applications to prevent fruit molds starting at 10% bloom.
- 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.

Evergreen Blackberries

- Scout for and treat as needed for Blackberry rust.

Raspberries

- Burn back primocanes as needed.
- (northern areas) Scout for [Clay Colored Weevil](#) feeding and treat as needed.
- Scout for [twospotted mites](#).
- 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

- Watch for weak growing areas and check plants for [weevil larvae](#), [root rot](#) and/or cold damage.
- Can apply fungicides starting at 10% bloom.
- (Southern strawberries) Can scout for [Strawberry Crown Moth](#) larvae.
- Can apply phosphite materials to strengthen root systems and manage root rot.

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Archived Small Fruit Updates

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

[17-SFU04-22-14](#) [16-SFU04-15-14](#) [15-SFU04-08-14](#)