

# 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.

March 23, 2011

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## Featured links:

[Website](#): Michigan State University Extension is bringing all of its ag-based information into one location (3/18/11).  
[Videos](#): Vole Traps and Trapping Techniques- might be a bit labor intensive for some, but looks good for organic management (YouTube, 2/21/09).  
[The Weather Cafe](#) by Rufus La Lone  
[Small Fruit Cold Storage Report](#)

## Disease Alert

### Highest risk for Oregon & SW Washington Blueberries Mummyberry

- The overwintering 'mummyberries' on the ground are now shooting up their tan colored mushrooms & releasing spores.
- Most fields are at or beyond green tip stage when those buds are susceptible to infection.
- We have periods when those buds are continually wet for the 12 hours or more required for infection.
- Our temperatures are often in, or close to, the optimal range for infections to take place (50-57°F / 10-14°C).

***Fields at risk should have a protective fungicide in place on the susceptible tissue at this time to minimize infection.***

- Fungicide applications made after initial infections have taken place will have no effect on these infections.
- This early critical disease management window is often missed, particularly in wet years like this when it is often difficult to get into the field.
- [Click here](#) for a pictorial guide put together by Michigan State University of the various stages of blueberry growth development. Fields are at risk of Mummyberry infections at 'green tip stage'.
- [Click here](#) for a Mummyberry fact sheet from MSU.

## 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](#)

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## Regional Reports

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*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

- **Raspberries:** (Monday, 3/21) It needs to warm up a lot faster than this to get things moving. Raspberries are slowly pushing, and one could be inclined to say the canes are damaged, but the soil is still pretty cold and air temps are cool for a good portion of the day. Even weeds are not emerging very fast. Could be a little more cold damage in first year fields of Meekers than I originally thought. A lot of lime sulfur on the past week.
- **Blueberries:** (Monday, 3/21) Blues could be heading into some first Mummyberry sprays this week in the upper Fraser Valley. Reka, Duke and Bluecrop leaf buds are moving. Check for sprouting apothecia in Abbotsford area has been negative so far. Some Mummyberry spray has gone on in far west (Delta, Richmond) of Fraser Valley where blues seem to be more advanced.

### Northern Washington, Whatcom & Skagit Counties

- **Blueberries & Raspberries:** (Thursday, 3/17) What's that buzzing sound? [Yanmar tractors and treads](#) on sprayers work real well (...on wet soils...), and ride smoother, without making ruts. We're a couple of days away from Mummyberry sprays in the blueberries, if the rains hold off. Ditto for lime sulfur on raspberries.
- **Blueberries:** (Friday, 3/18) Things are starting to get better up here. Still a bit early for mummies in the blues. The stalks are about half mature; I would guess that at the current temps we will see mature cups on the ends by the middle of next week. I had to really dig in Skagit to find a comparison; I feel they are a couple days behind in fungal development.
- **Raspberries:** (Friday, 3/18) Raspberry buds still closed with no evident cold damage to the canes. We had a couple days where work was able to get done. Still slow on fertilizer applications. Mostly we're applying lime sulfur, Ridomil (for Phytophthora root rot), and pre-emergent herbicides.

### Willamette Valley, Oregon and SW Washington

- **Blueberries:** (Friday, 3/18) (Organic production) Wet and cool, wishing for warm and sun, we are using a Yanmar tracked tractor to get our work done. We have been very happy with it. It seems to float over the wet areas. We have bud break on everything except Jersey.
- **Blueberries:** (Friday, 3/18) At Salem, spring appears to be on-hold with rain and cool temperatures prevailing. At first opportunity we will begin our dormant spray...this year the bloom sprays may follow right on the heels of the dormant spray. A few Duke clusters showing pink, while other varieties remain in various states of early budbreak.

## Cold Damage Assessment from Northern Washington

The following information is from [Dr. Tom Walters](#), WSU Small Fruit Horticulturist

*"I haven't seen much cold/freeze damage at all in blueberry or raspberry samples from Whatcom County. We've evaluated Whatcom samples side by side with the ones from Skagit County, which showed significant damage. Skagit's low temp's on Feb 25 and 26 were much lower than those in Whatcom, with little or no wind. Perhaps the still conditions allowed the coldest air to settle."*

**Raspberries:** (Friday, 3/18) Notes on sampling for cold damage:

- In Skagit, buds have been very slow to emerge, especially compared to buds from Whatcom (even when both are in beakers of water side by side).
- Some of the dissected buds from the Skagit samples have extensive vascular damage.
- **Meeker:** Skagit first-year Meeker samples have very erratic budbreak while some samples of Meeker, Willamette and Wakefield from Whatcom all look fine.

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- **Cascade Bounty:** Good emergence in the field and in the lab. Looks fine so far. However, buds from the first-year field emerged in lab and then wilted. Buds in field just emerging, can't tell if they will hold up.
- **Malahat:** Slightly better than Meeker, but many buds also have a compromised vascular system.
- **Chemainus:** Apical buds look okay, basal buds coming on slowly. Buds from first-year field have poor emergence from primaries, but some secondary and tertiary buds are coming in.
- **Saanich:** (first year crop only) Primary buds appear dead, some emergence from secondary buds.

**Blackberries:** (Friday 3/18) Notes on sampling for cold damage-

- Cold damage is rated at 90-100% in our **Black Diamond** samples and 70-80% in our **Chester** samples.

**Blueberries:** (Friday, 3/18) Notes on sampling for cold damage-

- Some Skagit County blueberry branch samples kept in water have shown damage. Some with damaged vascular systems looked okay earlier, but have since collapsed.
- Cuttings placed in the greenhouse show approximate damage of:
  - 35% **Bluejay**, 20% **Liberty**, 20-50% **Elliot** (one block had very light damage), 80-90% **Duke**, 80-90% **Reka**, 90-100% **Toro**.
  - **Note:** We had some **Reka** prunings cut on Thursday before the freeze that were left on the ground under the snow that had no damage at all.

**Quick method for checking for blueberry damage in the field:** We found we could pinch off blueberry buds to get a quick look at the vascular systems supplying them. That's handy right now, because many of the buds look fine on the outside, but are destined to collapse. I think you could do this effectively with sharp eyes, although a hand lens would certainly help. By the way, this has not worked for us on raspberry buds- sometimes the trashed vascular area on these is just below where the bud breaks off.

## Classifieds

**Washington Blueberry Promotion effort is looking for an Airstream trailer.** Darryl Ehlers, a former Washington Blueberry commission member and long-time Washington blueberry grower, is searching for a 14 foot or shorter Air Stream trailer or a plastic 10 foot trailer resembling the shape of a blueberry that he could modify for the commission's uses for promotional purposes. Darryl says, "Air Stream lends to nostalgia and has the shape needed to make this fly. If needed it can be gutted, because all that will be in it are shelves, brochures or food sampling to move from show to show."

If you have, or know of, a trailer that could be for sale, contact Darryl at 360-988-5184 or email him at [lingonberry1@aol.com](mailto:lingonberry1@aol.com).

## **Industry News/Resources**

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### **Newsletters/Blogs**

- [British Columbia Berry Grower Magazine](#) (Winter)
- ['The Source'](#) (3/21) Market updates from *The Produce News*.
- [Berry News from Michigan State](#) (3/18) Some of the articles now posted:
  - [MSU's Agrifood Safety resources](#)
  - [Frost Alarm system set up for Michigan growers](#) It'd be great to have something like this out here.
  - [Gypsum as a soil additive: Use it or lose it](#)

### **West**

- (Cal) [Strawberries hit by heavy rain](#) (3/21, The Packer)

### **National**

- [Strong demand expected for big Florida blueberry crop](#) (3/16, The Packer)
- [RFID Technology helps keep food safe](#) (3/14, FreshPlaza)

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- [Scientists seeking emergency OK from EPA to use stink bug pesticide in orchards in 7 states](#) (3/18, Washington Post)
- [Dow AgroSciences launches website to help fight insecticide resistance](#) (3/18, GrowingProduce.com)
- [Investigating alternatives to Methyl Bromide](#) (3/4, USDA ARS)
- [\(FL\) Chefs visit Florida strawberry fields](#) (3/09, The Packer)
- [FDA Schedules Public Meeting to Discuss Food Safety Modernization Act](#) (3/16, FoodProcessing.com)

## International

- [Chilean Fruit Market Report](#) (3/14, FreshPlaza)
- [Peru's frozen strawberry exports rise 155%](#) (3/21, FreshFruitPortal.com)

## Pest Alerts

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### Diseases

*Warm (er), wet, new plant growth—the fungi, insects, rodents, mollusks, et al. are all waking up, too.*

- **Risk is High:** [Pseudomonas \(Bacterial Blight\)](#) blueberries- **Recommended management:** To prevent future lesions from forming, copper sprays are recommended. Once night temperatures are consistently above the mid thirties (F), the risk of new damage is minimal.
- **Risk is High:** [Mummyberry](#) blueberries See [alert](#) at the top of the newsletter.

### Insects/Mites

- [Winter Moth/ Bruce Span Worm](#) blueberries: Scouting for Winter Moth larvae should start as soon as the buds start swelling. This is more of an ongoing issue in the northern growing regions, but it's also an occasional, locally severe problem in some Oregon and SW Washington fields.

### Vertebrates

- **Voles, all berries:** *Zinc Phosphide baits can only be used up until budbreak.* [Click here](#) for some background and biology information on voles (or meadow mice). [Click here](#) for information on how to construct bait stations.

## Ongoing Pest Management & IPM Information

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### Diseases

- [Phytophthora Root Rot](#) raspberries: March is the time to use a fungicide drench in raspberries. Warm, saturated soils are the conditions that favor this organism allowing it to spread quickly.
- [Blackberry Rust \(Phragmidium Rust\)](#) Evergreen blackberries: Dormant spray of lime/sulfur or elemental sulfur for Blackberry Rust and Redberry Mites is recommended in March to prevent later problems.
- [Cane Blight](#) raspberries: A good time to spot symptoms of cane blight is as the buds break.
- [Mummyberry](#) blueberries: See [alert section](#) above.
- [Pseudomonas \(Bacterial Blight\)](#) blueberries: See [alert section](#) above.
- [Purple Blotch](#) blackberries: Check for cane lesions that are easy to see as the weather warms but the foliage has not yet emerged. It's a good time to assess disease level.

### Insects/Mites

- [Winter Moth/ Bruce Span Worm](#) blueberries: See [alert section](#) above.
- [Lecanium Scale](#) blueberries: A dormant oil or Esteem (pyriproxyfen) can be used while blueberries are dormant.

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- [Raspberry Crown Borer](#) caneberries: If you've had borer problems in the past, March is the time to drench for crown borer control in caneberries.

- [Strawberry Crown Moth](#) **southern caneberries**: In Oregon and Southwest Washington, this borer looks to do as much, if not more, damage in caneberries as the Raspberry Crown Borer. The treatment is the same as for RCB- a spring (or fall) insecticide drench.
- [Clay Colored Weevils](#) **northern raspberries**: This early emerging species is considered a pest of raspberries in northern growing areas where it feeds on newly emerging shoots and buds.
- [Redberry Mite](#) **evergreen blackberries**: Dormant sprays of lime/sulfur or elemental sulfur for Blackberry Rust and Redberry Mite are recommended in March.

## Spotted Wing Drosophila Update for 3-23-11

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

### SWD Information Websites

[Peerbolt Crop Management](#)

[Oregon State Univ.](#)

[B.C. Ministry of Ag.](#)

[WSU Westside](#)

[WSU Eastside](#)

### General Comments

- All trap counts over the past few months are presumed to be the overwintering generation. There are no indications that the first new season's generation has emerged in the Northwest.
- It's recommended that any potential early fruiting plants be monitored to detect this first generation as early as possible.
- This greatly aids the usefulness of our models for predicting where and when outbreaks and/or high numbers could show up first.
- Identifying these first, early breeding sites/hosts can also help us develop management strategies.

### Last Week's:

- In 2010, the first recorded SWD trap catch was on April 7. From that point, recorded trap catches remained very low & isolated until mid-June.
- However, last year, we were still sorting out SWD female/male identification problems and did not have traps out as extensively during the 2009-10 winter.
- There are indications that this year's SWD population is much higher than last year at this time.
- We're still early in understanding this insect's regional dynamics and the extent of its potential economic threat to berry and stone fruit crops.
- Last year's very cool, atypical season should not be assumed to be a reliable indicator of SWD behavior or its potential for causing economic crop damage for the upcoming 2011 season.
- Right now reported SWD catches from in-field traps are close to zero at all locations. However, a few sites in alternative habitats/fruits are recording very high numbers.

### Monitoring Reports

*These reports are from a fairly small number of locations. More expanded scouting will begin in a couple of weeks.*

#### **Oregon (OSU Extension)**

1 week counts for March 16

- Washington County (10 traps in blueberries): **No SWD**
- Clackamas County, OSU North Willamette Research & Extension Center (5 traps, misc. crops): **3 females**

#### **Western British Columbia (Ministry of Ag) 2011 Winter Monitoring data**

- 4 fields (2 blueberry, 2 raspberry) & areas around those fields.
- 28 traps in fruiting hedges, mixed hedges, building sites & within fields.
  - January 21-31: **17 males, 23 females.**
  - January 31-February 10: **0 males, 6 females.**
  - February 10-February 21: **0 males, 2 females.**
  - February 21-March 4: **0 males, 1 female.**

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### SWD in the News

- (B.C.) [Local Growers meet to discuss latest insect](#) (3/22, KeremeosReview.com)

## Meeting Information

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For more comprehensive meeting schedule, [click here](#).

- **April 1 — Ecological Raspberry Production Systems (ECORAZ)** ~ 8:30am-3:30pm. WSU-Mount Vernon Northwestern Washington Research and Extension Center. An educational symposium exploring productivity, soil health, water and nutrient management. Lunch provided. [Click here](#) for details or contact [Colleen Burrows](#) for more information.
- **April 4 — Oregon Strawberry Commission Annual Strawberry Growers Meeting** ~ 8:30am to 2:30pm. North Willamette Research Station, Aurora, OR. Hear reports on strawberry research and education. Lunch provided to those that RSVP by March 31. Call 541-758-4043 or email [Rachel Denu](#) for details or to RSVP.
- **April 12 — Washington Blueberry Commission meeting** ~ Regular commission meeting to be held in Eastern WA. Location TBA. Contact [Alan Schreiber](#) 509-266-4300 for more information.
- **April 13 — Washington Red Raspberry Commission meeting** ~ Puyallup, WA. Contact [Henry Bierlink](#) or call 360-354-8767 for more information.
- **April 19-20 — Soil & Water Conservation Society “Protecting Natural Resources with Conservation Buffers” Workshop** ~ Portland, OR. [Click here](#) for details. Portland, OR. Someone from EPA will be giving the keynote address. This conference will address many of the issues that are at the center of ongoing legal efforts to limit the use of many pesticides.
- **April 26 — Oregon Blueberry Commission meeting** ~ Noon. Santiam Room, West Salem Roth's IGA in Salem. Call (503) 364-2944 for more information.

## Nutrient Management

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*We're getting to a traditional time for applying fertilizer. Many growers still apply the first blueberry application just before the buds break. Recent research shows the plant takes up very little nitrogen before late April. Recommended timing for split applications in the Willamette Valley is 1/3 in late April, 1/3 in mid-May and 1/3 in mid-June.*

[Click here](#) For OSU's "Nutrient Management in Blueberries" (16 page pdf).

## Crop work

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### All crops

- Scout for voles and treat as needed.
- Weed management.
- Plan fertilizer program.
- Can put out monitoring traps for Spotted Wing Drosophila.

### Blueberries

- Weed management note: [Callisto \(mesotrione\)](#) can only be used before bloom.
  - [Click here](#) for information from OSU on the new herbicide options in blueberries.
- Scout for Winter Moth/Spanworm and treat as needed.
- Can apply Bacterial Blight (Pseudomonas) management materials.
- Scout for sprouting Mummyberries and treat as needed.
- Scout for leafroller larvae feeding.
- Plan for pre-bloom aphid control where scorch virus transmission is an issue.
- Make preparations for bringing in bees around 10% bloom.

### Blackberries

- Scout for Purple Blotch lesions in Marion berries to assess field disease levels for later treatments.
- Can apply lime sulfur for Redberry Mites and/or disease management.
- Can drench for crown borer management.

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### Evergreen Blackberries

- Can apply a dormant spray of lime/sulfur or elemental sulfur in mid-February for Redberry mites and blackberry rust.

### **Raspberries**

- Burn back primocanes as needed.
- Scout for Clay Colored Weevil feeding and treat as needed.
- Can apply lime sulfur for disease management.
- (northern areas) Scout for Clay Colored Weevil feeding and treat as needed.
- Can apply Ridomil for Phytophthora root rot management.
- Can drench for crown borer management.
- Scout for Cane Blight and Cane Botrytis symptoms.

### **Strawberries**

- Can apply pre-emergent herbicides.
- As plants start to grow, watch for weak growing areas and check roots for weevil larvae, root rot and/or cold damage.

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## **Archived Small Fruit Updates**

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

[03-15-11](#)

[03-08-11](#)

[03-01-11](#)