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## Berry News

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### Berry Update

The onset of sunnier, drier weather has helped get pickers into the fields and improved berry quality and growers spirits. Hopefully this weather will continue.

Blueberry harvest is moving along nicely with growers reporting above average crops. Summer raspberries were slightly below average – most people have finished picking on all but the very latest varieties. Day Neutral strawberries have just started bearing for some people, with decent growth on plants. If you are still debating a fertility plan, please re-read the Berry News article from a few weeks ago – a related article is in this edition. Feeding DN strawberries is critical for the vigor and productivity of the planting.

Early varieties of fall raspberries are beginning to color. This is a good thing as it might mean some of the crop will be ready before SWD populations increase. More on the SWD situation in eastern NY and the entire region follows this note.

I want to thank Nate Nourse of Nourse Farms (<http://noursefarms.com/>) for hosting about 20 growers from our region last week. It was an excellent tour – informative and even inspirational! For those of you that missed it, keep your eyes posted for possible Open Houses in years to come. It is worth the trip!

For other worthwhile trips and opportunities to see high end berry production, consider joining one of the National Berry Groups. NASGA, (North American Strawberry Growers Association) is hosting their summer tour to northern Vermont on August 13-14th. My experience with this organization has been extremely positive. It's a great way to network with other growers and berry



professionals, plus it allows you to get a little recharging in the middle of the season. Check out their website at: <http://www.nasga.org/>.

Other berry associations that you should consider joining include NARBA (North American Raspberry and Blackberry Association, <http://www.raspblackberry.com/>) and of course, NARBA sponsors annual meetings that are held throughout the US and Canada. This year the annual conference is piggy-backing with the Mid-Atlantic Fruit and Vegetable meeting in Hershey, PA. If you've never gone to that meeting, and you're a bramble grower, then put it on your calendar for this January.

Lastly, make sure you are a member of NYSBGA (NYS Berry Growers Association, <http://www.hort.cornell.edu/grower/nybga/>). They have been instrumental in lobbying the NYS legislature for research funds to

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support SWD research. One of those projects is located in southern Rensselaer County, and we tentatively have a date for a twilight meeting for early September to look at the fixed spray system in a raspberry high tunnel.

### **SWD Update**

For approximately the last month, Spotted Wing Drosophila adults have been found in low numbers in vinegar/yeast baited traps in Orange, Ulster, Columbia and Dutchess counties. These traps are located in a variety of berry crops and cherries as well as hedgerows adjacent to the crop fields. Two weeks ago the numbers of adults increased from low, single digit counts to double digits and then this week, traps placed in blackberry fields yielded approximately 60 adult SWD.

The same type of trapping has been ongoing in most counties in the Capital District and the North Country, and the first adults were caught in traps in hedgerows and bramble plantings 2 weeks ago. This week we found double digits in an Albany county planting of summer raspberries, and the first trap catch of adults were found in Clinton County late last week.

As of yet, we have no confirmed trap catch inside blueberry plantings, but SWD adults have been caught in hedgerow traps adjacent to blueberries.

A more dramatic increase in population has been reported for Southern New England states including a report this week from Western Mass indicating over 400 adults in one trap.

We have been doing fruit assessments and have found almost no evidence of larvae, however, Juliett Carroll of NYS IPM suggests splitting a field-collected fruit sample into two parts. One part would be used for salt floatation test immediately. The other half of the collected fruit would be left for 3 days and then a salt floatation test done. In this way, any eggs that may have been laid in the fruit would have time to develop into larvae and these would be easier to see. It is important to keep the fruit covered during the incubation, and also to try to not allow the fruit juice to drown the developing larvae, so placing the fruit on a paper towel so that it will absorb excess juice.

We are still recommending 5-7 day spray intervals for late season blueberries, DN strawberries and fall bearing raspberries. The updated spray tables for all berry crops are located at the Cornell SWD website: <http://www.fruit.cornell.edu/spottedwing/>.

## **Mummyberry on Blueberries – A Scouting Primer**

Source: Michigan State University [http://msue.anr.msu.edu/news/scouting\\_and\\_management\\_of\\_mummy\\_berry\\_in\\_blueberries](http://msue.anr.msu.edu/news/scouting_and_management_of_mummy_berry_in_blueberries)

1. During harvest evaluate the level of mummyberry infections and the areas of the field that are infected.
2. Infected fruit is now easy to distinguish from healthy fruit.
3. The infected fruit colors earlier, shrivels, whitens and drops from the bushes easily when disturbed.
4. The inside of an infected berry will be filled with white fungal mycelium.
5. Sort out and remove from field as much of the infected fruit as possible.
6. Use this yearly mummyberry information to assess and plan next year's Mummyberry prevention program.

Right now is an excellent time to scout for the mummyberry especially if you've got weed mat.

Photo courtesy of 7/30/13 Small Fruit Update  
<http://www.berriesnw.com/>



## New Strawberry Species Found in Oregon

By Sharon Durham, USDA-ARS Information Staff. As published in *NY Berry News* Volume 12, Number 7 July 18, 2013

A recently discovered wild strawberry species provides new genetic material for plant research and, in the future, might also provide a new class of commercial strawberries.

Agricultural Research Service scientist Kim Hummer, with the USDA-ARS National Clonal Germplasm Repository at Corvallis, Oregon, found the new species during several plant collection expeditions in the high peaks of Oregon's Cascade Mountains. She named it *Fragaria cascadenensis*.

The find was reported in the *Journal of the Botanical Research Institute of Texas*.

The new strawberry is endemic to the Oregon Cascades, hence its specific name, *F. cascadenensis*. It is perennial, with white flowers and green leaves, and it differs from other strawberry species of the region by having hairs on the upper side of its leaves; a different-shaped middle leaflet; comma-shaped, small brown fruits (called "achenes") on the strawberry surface; and 10 sets of chromosomes, unlike the 8 sets of chromosomes of the commercial strawberry, according to Hummer.

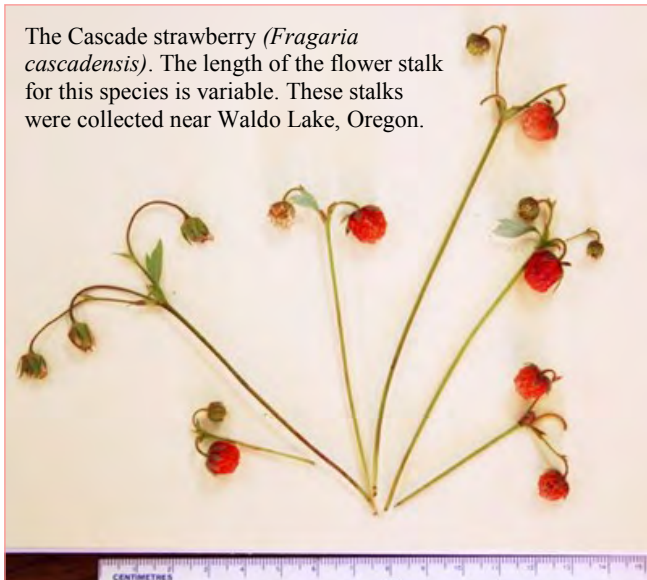
"The new strawberry species begins growing after snowmelt in late May or early June and flowers in early July. Runner production begins after flowering, and fruit ripens during August for about 2 weeks," says Hummer. "The fruits of plants at about 5,000 feet elevation ripen 1 to 2 weeks later than those at 3,280 feet."

The strawberry's distribution in the Oregon Cascades stretches from the Columbia River in the north to the vicinity of Crater Lake in the south, at elevations of about 3,000 feet up to tree line. It grows in sandy-clay loam soil



Wild fruiting plants of *Fragaria cascadenensis* near Hoodoo Mountain, located in Oregon's Cascade Mountains.

The Cascade strawberry (*Fragaria cascadenensis*). The length of the flower stalk for this species is variable. These stalks were collected near Waldo Lake, Oregon.



of volcanic origin located in forest clearings and open alpine meadows. The northern distribution range of *F. cascadenensis* has an average annual precipitation of 12-15 inches, but the southern range receives only about 6 inches of precipitation annually.

This new strawberry is now included in the living collections of the Corvallis repository, which is a genebank that preserves invaluable plant genetic resources of temperate fruit, nut, and agronomic crops. This genebank maintains collections representing global diversity of blackberries, blueberries, cranberries, currants, gooseberries, hazelnuts, hops, pears, raspberries, and strawberries.

"*Fragaria cascadenensis* presents the possibility for developing and breeding a new class of cultivated strawberries. This wild Oregon strawberry, if crossed with the commercial strawberry, would likely result in hybrid offspring with lower fertility," says Hummer. "However, crossing this new species with other strawberries having the same number of chromosomes, such as the cultivated *F. vesca* or the wild Russian species *F. iturupensis*, should produce fertile offspring, which may reveal new flavors or genetic disease resistance. In the future, consumers could benefit from the knowledge gained and genes provided by this new wild strawberry.

*This research is part of Plant Genetic Resources, Genomics, and Genetic Improvement, an ARS national program (#301) described at [www.nps.ars.usda.gov](http://www.nps.ars.usda.gov). Kim Hummer is with the USDA-ARS National Clonal Germplasm Repository, 33447 Peoria Rd., Corvallis, OR 97333; (541) 738-4200. "New Strawberry Species Found in Oregon" was published in the July 2013 issue of Agricultural Research magazine available at <http://www.ars.usda.gov/is/AR/archive/jul13/July2013.pdf>.*

## **Lannate LV and Lannate SP Approved for SWD Management in Blueberries**

The New York State Department of Environmental Conservation recently approved the following 2(ee) recommendations:

**Lannate LV Insecticide (EPA Reg. No. 352-384) and Lannate SP Insecticide (EPA Reg. No. 352-342) for control of spotted wing drosophila on blueberries. (Note that both products are restricted-use pesticides.)**

Users must have a copy of the appropriate 2(ee) recommendation in their possession at the time of use. Copies of the above 2(ee) recommendations are posted to the “NYS 2(ee) Recommendations and Categories” section of our web site. (Direct link to find the recommendations: [http://pmep.cce.cornell.edu/regulation/2ee/unlabeled\\_pest/index.html](http://pmep.cce.cornell.edu/regulation/2ee/unlabeled_pest/index.html)) Copies of the recommendations will be available on PIMS (<http://pims.psur.cornell.edu>).

When using a 2(ee) recommendation, remember to follow any applicable directions, restrictions, and precautions on the primary product label.

## **Walmart Increasing Local Produce Sales**

Walmart, the nation’s largest grocer and seller of produce, recently announced new efforts to ensure the “quality and freshness of the fruits and vegetables it offers customers,” part of the retailer’s goal of doubling its sales of locally grown produce by December 2015, according to a company press release.

The new efforts include changes to the retailer’s produce sourcing, training and operations. Initiatives include:

- Delivering produce from farms to store shelves faster by purchasing fruits and vegetables directly from growers and leveraging Walmart’s produce experts, distribution centers and trucking systems.
- Executing independent weekly checks in its more than 3,400 stores that sell produce.
- Launching fresh produce schools and other expanded training programs to 70,000 associates.

To improve quality and freshness, Walmart has hired produce experts to work directly with farmers in the key growing regions where the company has produce-buying offices. Building long-term partnerships with farmers while having Walmart associates in the regions – and in the fields everyday – where produce is grown has made it possible for Walmart to select farmers who grow the best fruits and vegetables, according to the press release.

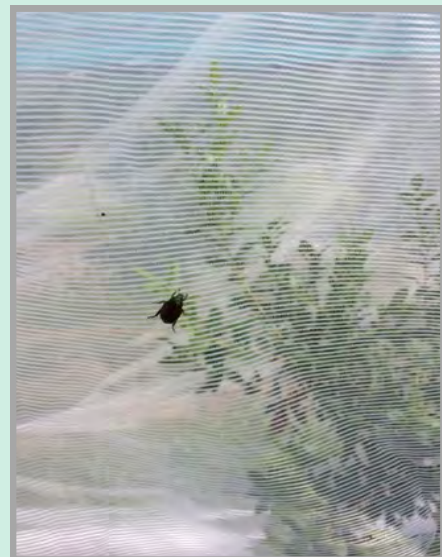
Walmart’s produce offices, combined with its advanced supply chain and efficient trucking network, have enabled the retailer to decrease the days needed to get produce from growers to individual stores. Reducing the number of days produce is in transit has made it possible for Walmart to deliver a fresher product to customers, according to the press release.

*Source: Jun. 5, 2013 Fruit Growers News*

<http://fruitgrowersnews.com/index.php/news/release/23407>

**Japanese Beetles** have been particularly challenging this year and last on blueberry and bramble plantings. They have been stripping leaves and causing a great deal of fruit damage - plus UPick customers hate them!

Here is a photo of one trying to get into a blueberry planting that has been netted to exclude SWD - maybe another reason to consider netting if you have a smaller planting. For more information on the Exclusion project at Hay Berry Farm, look for upcoming announcements of a field meeting in early September.



### Basics of Fertigation

We know that it is extremely wet out there, and that irrigation is about the last thing on most people’s minds. However, if your crops are showing signs of deficiency on plastic, irrigating through the drip system is one of your only options to bring those plants back to optimal levels of fertility, especially nitrogen. Below is some information on calculating rates properly, so that you can deliver the right amount of nutrients to your plants.

When fertigating you are only fertilizing the area under the plastic. Therefore you need to calculate how much area is actually covered with plastic, and then calculate how much fertilizer you need using that area. For example: if your finished bed width is 3 feet and your rows are 300 feet long, each bed is 900 square feet (3’ x 300 feet). If you have 10 of those rows, then the total area you want to fertigate is 900 square ft. x 10 rows = 9,000 square feet. To determine how much of an acre this is, we divide 9,000 square ft by 43,560 square feet. The actual acreage that needs fertilizing is 0.21 acres.

How much fertilizer do you need to apply after you figure the acreage? If you want to apply 10 lbs of actual nitrogen per acre using a Peter’s 20-0-0, you would need to use 50 lbs of 20-0-0. Get to this number by taking what you need divided by what you have or in this example 10lbs of

nitrogen needed /0.20 which is our nitrogen source expressed as a percentage by weight. Remember that the area we are treating is only the .21 acres that we determined are under plastic. Therefore, you would actually only dissolve 10 lbs (50 lbs per acre x 0.21 acres) of the 20-0-0 fertilizer. Using a 5 gallon bucket with 3-4 gallons of water is fine. I would then siphon that material into my drip system and I’m done. Note, these same sorts of calculations are what you can use to figure out rates for banding fertilizer on bare ground plantings.

There are a couple more keys – first, make sure your drip system is “charged” or that it is fully pressurized and dripping before you start your fertigation. Second, the longer it takes to siphon the fertilizer, the more uniform distribution you will get. Third, after the fertilizer solution has been siphoned up, make sure you continue to run the drip system for a while longer to “flush” the system. Lastly, be sure that you have a back flow preventer on your drip system to prevent fertilizer from being pulled back into your water source. If you are on a municipal water source, check with your municipality as they may have specific regulations on back flow preventers. –CDB, edited by CLS

### Weekly and Seasonal Weather Information

Site	Growing Degree Information Base 50° F			Rainfall Accumulations		
	2013 Weekly Total 7/24—7/30	2013 Season Total 3/1 - 7/30	2012 Total 3/1—7/30	2013 Weekly Rainfall 7/24—7/30 (inches)	2013 Season Rainfall 3/1—7/30 (inches)	2012 Total Rainfall 3/1—7/30(inches)
Albany	130.3	1536.6	1851.3	0.46	21.75	16.34
Castleton	109.1	1631.2	1830.5	0.18	19.89	15.87
Chazy	103.3	1439.6	1894.0	0.16	18.94	13.41
Clifton Park	116.7	1571.0	1729.8	0.12	20.40	19.53
Clintondale	137.5	1791.2	1423.3	NA	NA	15.20
Glens Falls	110.5	1451.7	1552.5	0.03	16.90	14.83
Granville	111.0	NA	1468.5	0.20	NA	17.60
Guilderland	121.0	1444.8	1576.0	0.14	5.56	5.57
Highland	137.0	1771.3	1902.2	0.65	15.30	17.54
Lake Placid	58.4	970.2	NA	0.55	19.95	NA
Montgomery	136.7	1681.6	1638.5	1.50	14.96	NA
Monticello	101.5	1220.7	1566.0	0.00	0.18	1.44
Redhook	133.3	1667.5	1759.5	0.35	14.63	12.81

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