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Berry News

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Regional Berry Update in this Final Berry Newsletter of 2014 season

Fall raspberry season is winding down and from all reports has been pretty good. Some growers report that SWD control was possible by tightening their spray schedule to 5 days rather than 7 – and this makes sense as SWD populations certainly spike once September sets in. The only good news is that as the temperatures drop and day length decreases the actual egg laying seems to also drop slightly and larvae take longer to mature. So the whole population starts to level off – unfortunately at a rather high level.



Photo by LGM

All in all I think growers are doing an increasingly better job managing this pest. Improved attention to cultural controls such as proper pruning, clean picking and immediate refrigeration of crop has helped as much as pesticide applications I think. Growers have prioritized good management and this has really helped with pest control. Kudos to you all!

We've included information about late season tasks such as mulching strawberries and there is an article that will help you organize early season tasks in your brain if you haven't begun thinking about that already. If you are considering a new planting, hopefully you've already done your soil testing and plan on placing plant orders EARLY! Last season many growers were closed out of the varieties they wanted because their order got in too late. Order before Thanks giving – and hopefully this won't happen.

On behalf of the entire Eastern NY Commercial Horticulture team we'd like to thank all of you for allowing us to monitor traps in your fields, or do some periodic scouting or host meetings this season. We look forward to seeing you at winter meetings but do hope that winter provides you an opportunity to re-charge your batteries. *-Laura and Jim*

Mulch Strawberries as Late as Possible

Straw from wheat or other grains are applied as mulch when soil temperature has consistently dropped below 40° F. This usually happens in late November, although southern locations might not see these temperatures until early-mid-December. This winter cover prevents winter heaving and crown desiccation.

Level plantings with no raised beds, require 2.5 to 3 tons of straw per acre – about 150 40 lb. small square bales. This will result in a 2-3” layer across the planting. Raised beds could require twice as much mulch because of the tendency for the straw to drift into the alleys. If you have small acreage, then applying mulch by hand is the way to go – just shake it out evenly over the plants. If you have large acreage, you will want to use a bale chopper. Keep an eye on the most windswept areas of your field and replace the mulch if it has blown off.

Mulch should be removed in the spring when new green tissue just begins to show. Rake the mulch into the rows. If you want to move your production back, you can do this by delaying mulch removal, but your yield may be compromised. We definitely saw that this spring as some people delayed their mulch removal for almost a month later than normal because of the sustained cold through March. In the spring of 2013 that delay helped growers avoid some blossom freeze damage – so this decision requires looking at long term forecasts and a bit of luck!

After straw mulch is removed many growers use floating row covers as spring frost protection strategy. These spun-bonded materials allow light and water to pass through but provide several degrees of temperature buffer – depending upon their weight. Heavy weight row covers (1.25 oz/yd² or 42 g/m²) can also be useful for winter protection of strawberry plantings. Anchor the row cover with rocks or other weights. Many growers are using a combination of straw and floating row covers, particularly those that are trying to winter a day neutral strawberry planting. You will want plenty of help and a still day to apply this mulch effectively. *–LGM*



Large Round bales of straw mulch being applied after dormancy has set in. *Courtesy of John Hand, Hand Melon Farm, Greenwich, NY*

Cornell Berry Open House a Success

Last Friday October 3rd Cornell University hosted an Open House for approximately 60 growers from all over the state. Dr. Marvin Pritts and colleagues showcased many different trials that are planted at the Cornell Orchard and East Hill farm. These included a fixed blackberry trellis system in a high tunnel planting, an upland cranberry trial, low-tunnel day-neutral strawberry production (see photo below), SWD management and monitoring, bio-pesticides as pest management tools and new berry varieties. Additionally Dr. Paul Curtis discussed an ongoing bird management study and introduced the ‘wind dance’ (at right) that seems to do a very good job distracting birds.

For more information about these topics, give Laura or Jim a call and we can forward you some resources. There will also be additional information at upcoming winter meetings – so keep your eyes on meeting announcements!



Off-season Management Tasks and Considerations for Selected Small Fruit Crops

By Tony Bratsch, Virginia Tech, Blacksburg

Late fall, winter and early spring is an important period of management for small fruit crops like strawberries, blackberries and raspberries, blueberries, and currants/gooseberries. Paying attention to management details during this time helps to ensure a successful crop the following season.

Strawberries: Strawberries will continue vegetative growth and development of flower buds under short days and mild fall temperatures, until growth is halted by significant freezing temperature events, and dormancy sets in. For the matted row system, an extended fall season allows growth and increased flower number for daughter plants, and in the plasticulture system, increased crown and floral development in the fall-set plants. In matted rows and between plasticulture beds, fall to early winter is a good time to apply a pre-emerge herbicide to control winter weeds.

Matted row plantings should be mulched with straw when air temperature regularly start falling in the 20-30°F range and soil temperatures drop to 40°F (usually mid to late November). Apply clean wheat straw to a depth of 2-4 inches. Straw will help to insulate the planting from temperature extremes and lessen root damage caused by frost heaving of soils, along with suppressing some weeds. Make sure herbicide applications are made before the straw is spread. Plasticulture plantings should also be mulched.

Brambles: Like strawberries, pre-emerge herbicides should be applied to bramble plantings in the fall and/or spring to control winter weeds and early spring weeds. There are several compounds available: simazine (Princep), norflurazon (Solicam), terbacil (Sinbar) and oryzalin (Surflan). Each has specific weed spectrums and



Strawberries in northern NY. Autumn is critical for next season bud development. Photo: L. McDermott

rate/use restrictions that should be understood before application.

For florican blackberries and raspberries, pruning can be done once plants are dormant, early winter through early spring prior to bud break, with very early spring a more preferable period. If not done during the summer, spent floricanes should be removed first. The primocanes left should be thinned to a desirable count depending on bramble type, age and vigor of the planting. In non-suckering, semi-erect blackberries, generally 6-8 canes should be left per plant. In hedgerow systems, for erect blackberries, leave 3-4 canes per linear foot, and on average 1-2 canes per foot with red raspberries. Always remove weak and insect damaged canes first.

Red raspberries are generally not headed back to maximize flowering, however if canes are too tall, they can be trimmed to 5-6 feet, or pruned past the point of any occurring winter injury. If no support is provided, canes can be cut back to 3-4 feet for greater stability as they flower and fruit in the spring. Black raspberry and blackberry canes can be headed back to bring them within bounds of the support trellis, and lateral branches should be shortened. Less in vigor, black raspberries laterals should be trimmed to 8-12 inches or 8-12 buds/lateral, while erect blackberries and purple raspberries should be trimmed to 12-18 inches or an average of 15 buds/lateral. The laterals of large, semi-erect thornless types can be left alone or trimmed to 1.5-2 feet in length, depending on vigor and size.

For primocane raspberries which were fruited on the current seasons growth, the old canes can be mowed at any point from late fall through early spring prior to shoot re-growth. Select a time when soils are relatively dry to



Potted day-neutrals in high tunnel. Production continues into November. Photo courtesy of G. Armstrong.

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Off-season Management Tasks, continued from previous page

lessen compaction, and mow canes as close as possible to the soil surface. Follow-up mowing with a pre-emerge herbicide application to the newly exposed soil surface.

There has been some research to indicate that placement of row covers in the spring may advance growth of primocane shoots in the spring. Growers may want to experiment with this technique to advance fruiting dates, and thereby improve yields in late cultivars.

Lastly, just prior to bud-break and before shoots are 1/2 inch long, liquid lime sulfur (at 24-31%) or a Bordeaux formulation (copper sulfate plus hydrated lime) should be applied to reduce the potential for anthracnose infection of the canes.

Blueberries: The key off-season tasks for blueberry plantings is application of pre-emerge herbicides where warranted, appropriate pruning, and supplemental application of mulch. Registered herbicides for blueberries are similar to brambles, and should be used to target specific weed problems. On older mulched beds, encroachment of winter weeds in the decaying mulch should be monitored. Supplemental mulching should be done when bare soil begins to show through. Apply 4-6 inches of fresh mulch in a circular area under new plants, and in older plantings in a continuous strip the length of the row, and out to, or just beyond the canopy of the plant.

Blueberries in general need minimal pruning until the third year after planting. "Clean-up" pruning, dead branches, and short branches of low vigor near the surface should be removed every year. Once plants are 5-6 years old, it is important to begin renewal pruning and removal of some of the oldest canes each winter. In general for high bush types, an ideal plant framework is 5-7 older canes, along with 1-2 newer canes at any given time. Once this level of growth is reached, 1-2 older canes can be removed annually at ground level, and those should be replaced by new canes.

For increased fruit size, detail pruning can be done on the tips of fruiting branches, by thinning/cutting them back to 4-8 fruit buds/branchlet. This will reduce yield overall but create noticeably larger berries. Fruit buds can easily be distinguished from vegetative buds by their plump size.

For mummy berry and phomopsis twig blight control, make plans to apply a delayed dormant (late dormant) application of lime sulfur and an early spring application of Ziram fungicide when bud scales begin to loosen (and again 7 days later). Consult the Small Fruit Spray Recommendations for further detail and caution using lime sulfur and other fungicides in blueberries.

Currants and Gooseberries: Ribes species (currants and gooseberries) will require attention to weeds, pruning and disease control during the winter months. As there are limited herbicides available for use in Ribes, the use of an organic mulch will help to control weeds, and for this drought sensitive crop, also help to retain soil moisture during the next growing season. Apply straw or composted manure, or both, in the fall to a depth of 3-4 inches. Coarse wood chips can also work well, but apply only a 1-2 inch layer. Supplemental nitrogen may be needed in the spring to off-set the seasonal breakdown of wood chips.

Currants and gooseberries need to be pruned annually. Fruits develop from buds near the base of 1 year old shoots, and will continue to fruit on "spurs" on older wood for up to three years. Pruning involves an understanding of fruiting habit, focusing on retention of fruiting wood and removing unproductive, older canes at the ground level. Ultimately, a mature bush will be pruned to leave 4-5 three-year old canes, 4-5 two-year old canes and 4-5 one-year old canes. For a new planting this is a gradual process until plants reach maturity. After the first year, leave 6-8 strong canes, after year two, leave 4-5 new canes and 4-5 two-year canes. By the third year a full complement and blend of cane ages will be achieved. Additional selective

pruning includes removing any dead canes, and canes very low to the ground, and weaker, bent and broken canes in the center to keep the bush open.

An important disease control measure with currants and gooseberries is to apply lime sulfur or Bordeaux formulation (at rate mentioned for brambles) to canes just prior to bud swell and break. This will help to reduce the incidence of foliar and cane diseases in the coming season. Also when pruning, be sure to remove canes that are swollen or knotted, which may harbor over-wintering, cane boring insects.



Photo courtesy of Cornell Berry web page

Cornell Berry Pages Nursery Guide

To help you compare nurseries selection and prices, visit this two-part nursery guide for berry growers. The nurseries page contains an alphabetized listing of businesses throughout the United States and Canada that have requested inclusion in our listing. Cultivar pages for each crop list specific cultivars followed by the nurseries that sell them. This includes sources for minor berries like saskatoons, cranberries, currants etc. Use this resource this fall when placing berry orders: <http://www.fruit.cornell.edu/berry/nurseries>.

Calendar of Events

- **Vineyard Site Selection Workshop**

October 22, 2014 from 1-3 pm

Feather Farms Vineyard, 151 Old Kings Highway, Stone Ridge, NY 12484

Come meet your neighbor, Harry Hansen of Feather Farms, along with Jim O'Connell of the CCE Ulster County/ENYCHP on October 22, 2014 to discuss vineyard site selection.

Having the proper site is a key component of grape production. If you are a new grower looking to start a vineyard or an experienced grower looking to expand your vineyard this workshop is for you. Jim will discuss and provide examples of valuable online resources that can help with site selection. Harry will talk about what varieties he is growing, what has worked for him and his plans for expanding his existing vineyard.

This workshop will run from 1-3pm. It is free but please register ahead of time by contacting Jim O'Connell by phone at 845-943-9814 or email at jmo98@cornell.edu.

- **November 17-19, 2014** – *Southeast Strawberry EXPO*, Pinehurst, North Carolina. **For more information:** www.ncstrawberry.com.
- **December 9-11, 2014.** *Great Lakes Fruit, Vegetable, and Farm Market EXPO and Michigan Greenhouse Growers Expo*. More information: <http://www.glexpo.com/>.
- **Save the Date!** The New York State Berry Growers Association is sponsoring 3 **In-Depth Full Day Workshops about Managing Spotted Wing Drosophila**. The dates and locations are below. Detailed information and registration details will be available soon, but mark these dates on your calendar.
 - Wednesday, December 17th – Syracuse, NY
 - Wednesday, January 14th – CCE Albany County, 24 Martin Road, Voorheesville, NY 12186**
 - Wednesday, March 4th – Batavia, NY
- **January 20-22, 2015.** *Empire State Producers EXPO*. **More information:** <http://nysvga.org/expo/information/>.
- **January 27-29, 2015.** *Mid-Atlantic Fruit and Vegetable Convention*, Hershey, PA. More information: <http://www.raspberrylblackberry.com>.
- **February 3-6 2015.** *NASGA Conference and Symposium*, Ventura, CA. **More info:** www.nasga.org.
- **February 12, 2015.** *Hudson Valley Fruit School – Berry and Grape session*. Information to follow.
- **February 24-27, 2015.** North American Raspberry and Blackberry Conference, Fayetteville, NC. **More information:** www.raspberrylblackberry.com/.
- **June 18-25, 2015** – *11th International Rubus & Ribes Symposium*, in Asheville, NC, June 21-24, with preconference tour to farms and research sites June 18-21. More information: <http://www.newbeginningsmanagement.com/ishs/>