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Berry News

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Regional Updates:

North Country—Clinton, Essex, northern Warren and Washington counties

Berry phenology: blueberries dormant with some bud swell in warmer locations; caneberries and strawberries still dormant

Current growing degree days	1/1/13 to 04/09/13	Base 43 ⁰ F	Base 50 ⁰ F
	South Hero, VT	1.0	0
	Burlington, VT	2.5	0
	Shoreham, VT	7.8	0.8

Pest focus—scale, early season canker preventative sprays, early season weed sprays still possible

Capital District—Albany, Fulton, Montgomery, Rensselaer, Saratoga, Schenectady, Schoharie, southern Warren and Washington counties

Berry phenology: Blueberries at bud swell—southern locations moving toward tight cluster. Southern areas strawberry growth has begun—look under mulch.

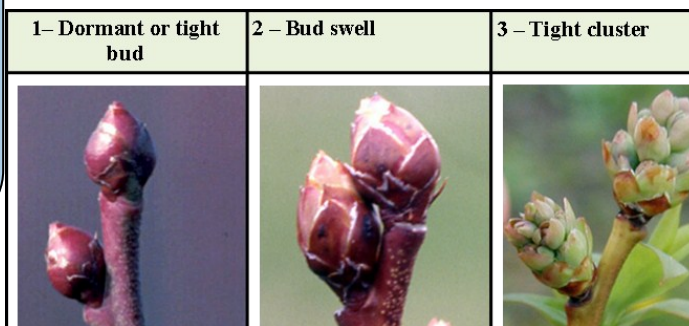
Current growing degree days	1/1/13 to 04/09/13	Base 43 ⁰ F	Base 50 ⁰ F
	Granville	9.0	2.0
	North Easton	10.1	3.1
	Clifton Park	10.1	3.1
	Guilderland	10.0	3.0

Pest focus—scale, early season canker preventative sprays, early season weed sprays still possible in very cold locations.

Mid-Hudson Valley—Columbia, Dutchess, Greene, Orange, Sullivan and Ulster counties

Berry phenology: Blueberry—past bud swell into tight cluster. Most strawberries showing growth at crown.

Current growing degree days	1/1/13 to 04/09/13	Base 43 ⁰ F	Base 50 ⁰ F
	Highland	20.4	13.4
	Marlboro	19.0	12.0
	Montgomery	19.0	12.0



Pest focus—Mummyberry control in blueberries. Also botrytis blossom and twig blight. For strawberries, look under leaves on warm days—upper leaves will show small yellow spots to indicate feeding injury.

Disease Focus: Control Mummyberry in your Blueberry Planting Now

Mummyberry (*Monilinia vaccinii-corymbosi*) is one of the most common and potentially the most serious fungal diseases of blueberry. Once mummyberry becomes established in a planting it can result in a good deal of plant tissue death, and in a wet spring can destroy 100% of the crop. All blueberry cultivars varieties are susceptible to Mummyberry but the degree of susceptibility varies.

Until several years ago mummyberry was infrequently seen in Eastern NY, but as acreage of this valuable crop increases, so does inoculum and the need to take preventive action.

In early spring, look for developing leaves and shoots that suddenly appear wilted and droopy. The dead areas develop a gray mass of spores followed by flower infection that will affect the berries. As the berry develops, it will begin to turn a pinkish then tan color and shrivel into a hard, almost 'mini-pumpkin' looking structure. This mummy

will fall to the ground and supply all the spores necessary for a major infection the following spring.

To control mummyberry, time preventative fungicide applications to the green bud stage since leaf and flower buds are infected just as they begin to open. Sprays should continue until bloom, especially if spring weather is cool and rainy. Organically acceptable fungicides include Serenade Max and Actinovate AG. Serenade



Mummyberry shoot infection.

Photo courtesy C. Heidenreich, Cornell

Max is only appropriate for suppression of the disease. Conventional fungicides available include Abound, Captan, CaptEvate 68, Switch, Indar 2F, Quash and Orbit. Limits on a.i. in one season or number of total sprays vary from product to product, so read the label.

To reduce inoculum in a planting, disturb the soil underneath the bushes by raking beneath the plants just prior to bud break. This action dislodges the mummified berry and the fruiting stalk that has developed making it impossible for it to produce infective spores. Make sure to keep old berries from accumulating under the bushes and destroy any cull piles near the fields. Good weed control will help you keep track of mummified fruit while allowing birds (chickens perhaps?) to feed on the mummified fruit after harvest might also work. Another strategy involves applying 200 lbs/A of 50% urea to burn out apothecia during the early spring.

For more information on managing mummyberry, refer to the [2013 Cornell Pest Management Guidelines for Berry Crops.](#) -LGM



Apothecia are forming in mulch below bushes now.

Photo courtesy of C. Heidenreich, Cornell

Strawberry Weed Control Tip

By Debbie Breth, Lake Ontario Fruit Program

Strawberry plants are no longer dormant and Chateau is no longer an option for control at this time unless you are only treating between rows. The alternatives now are Devrinol or Sinbar. Since the plants are not dormant, the application of Sinbar must be followed immediately by 0.5 – 1 inch of irrigation or rainfall to avoid severe burning of the plants. Devrinol must be watered in by rainfall or irrigation to wash into the weed seed germination zone. Stinger still has a supplemental label for strawberries at 1/3 pint per acre in spring application for control of dandelion, red sorrel, curly dock, Canada thistle, and other selected composite weeds. You do not want to wash off the Stinger!

Strawberry Mulch Removal

Many growers in the Hudson Valley have already removed straw mulch from their strawberries, but for those growers that have not made that decision, keep in mind that the earlier you remove straw mulch, the earlier fruit will mature.

To determine if it's time in your location, look underneath the straw for signs of leaf growth. Check several locations in the earliest varieties. You are looking for new growth from the crown. This growth will often be quite yellow as the leaf needs some sunshine to stimulate green chlorophyll development. If you see this growth from a few locations – and if no prolonged cold is forecast in the next few days- then it's time to remove the mulch. Taking the mulch off right before a rain will help wet the straw and insure that it stays in place.

Remember though, early mulch removal will require more frost protection. If you are in a historically cold location, delay mulch removal for as long as possible will only work to your advantage. Studies have shown that delaying mulch



removal purposely may actually reduce overall yield. The highest yields come from plants that are uncovered as early in spring as the ground allows, which means that equipment can be supported without rutting.

Growers that are really interested in pushing their crop, or growers that are managing the crop organically, will lay a row cover material over the berries after the straw mulch is removed. Depending upon the weight, row cover will trap heat and accelerate flower development and plant growth, as well as act as an insect barrier. I would suggest that growers not use a heavy weight row cover, unless they are prepared to do aggressive frost protection. Growers that do not use row cover, could leave a 1” layer of straw on the plant row. This will actually help reduce weed seed germination. -LGM

Keep Your Eyes Open for Winter Moth

By Sonia Schloemann, UMass

Editors note: At the risk of making you numb to all of the new pests that seem to be coming our way, I'd like to make you aware of this, relatively slow moving pest, that is in New England. Please call Jim O'Connell or Laura McDermott if you see anything that resembles this pest in your blueberries.

Winter Moth (*Operophtera brumata*): This is a new and important pest of blueberries, apples and other deciduous plants, especially in Southeastern New England. They can severely defoliate trees and bushes. Moths emerge from the soil usually in late November and may be active into

January. The male moths are light brown to tan in color and all four wings are fringed with small elongate scales that give the hind margins a hairy or fringed appearance. The female is gray, almost wingless (brachypterous) and, therefore, cannot fly. Females are usually found at the base of trees or scurrying up tree trunks. Winter moth caterpillars are pale green caterpillars with a white longitudinal stripe running down both sides of the body. They are “loopers” or “inchworms” and have just 2 pairs of prolegs. At maturity, the caterpillars will be approximately one inch long, whereupon they drop to the soil for pupation. Pupation occurs from late May into



Winter Moth Larva



Bruce Spanworm Larva

early June. Winter moth caterpillars are often found in association with both the fall and spring cankerworms, which look and

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have similar feeding patterns to the winter moth caterpillar.

Life Cycle: After mating, the female deposits eggs loosely in bark crevices, under bark scales, under lichen, or elsewhere. The adult moths then die and the eggs over-winter. Eggs are dark-colored at first but turn orange within 3-4 weeks. In late-March or early-April, just prior to hatching, they turn red and eventually a deep, shiny blue just prior to hatching. Eggs hatch when temperatures average around 55°F. **It is believed that egg hatch in Massachusetts occurs when 173 GDD above a base of 40° F (starting Jan 1) have accumulated**, which is historically during the second week in April but earlier if temperatures are atypically warmer, depending. This means that egg hatch occurs just at or right before bud break of most of the host plants. After hatching, the larvae wriggle between bud scales of newly swelling buds of such hosts as: maples, oaks, ash, apples, crabapples, blueberry, cherries, etc. and begin feeding.

See <http://newa.cornell.edu/> or <http://www.weather.com/outdoors/agriculture/growing-degree-days/01002> to calculate the Growing Degree Days for your location. Good bio-indicators are flowering red maples and green tip on Macintosh apples. See <http://extension.umass.edu/fruitadvisor/2013-bud-stages> for apple. **This year, models suggest that we will reach egg hatch on or near April 15, 2013.**

Damage: Caterpillars feed within both flower and foliar buds. Once a bud has been devoured from within, the caterpillar will migrate to other buds and repeat the process. Destruction of the flower buds leads to greatly



Photo credit: Heather Faubert, URI from 2012

diminished harvest on fruit crops. Older larvae feed in expanding leaf clusters and are capable of defoliating trees and other plants, when abundant.

Management: A dormant oil spray to the trunks and branches of bushes may be helpful to kill the overwintering eggs before they hatch. However, some eggs are under bark flaps and loose lichen and may be protected from oil sprays. Caterpillars may also invade host plants by ballooning onto them after treatment has been applied. Additional information can also be found at: <http://extension.umass.edu/landscape/fact-sheets/winter-moth-overview>

For detailed information concerning the biology and management of Winter Moth, visit the following:

<http://extension.umass.edu/landscape/fact-sheets/winter-moth-identification-management>

<http://extension.umass.edu/landscape/fact-sheets/winter-moth-overview>

Editors' note: As winter moth has not been detected in NYS in numbers damaging to crops, there are no insecticides currently labeled for its control in NYS. This makes early detection paramount. If you see winter moth larvae in your blueberries this spring, please contact Jim O'Connell or Laura McDermott. Our contact information is on the front of the newsletter.

Berry Sprayer Optimization and Calibration Workshops

Proper sprayer calibration and optimization will be a major part of an effective Spotted Wing Drosophila management program. Join us for one of these three workshops to learn more about sprayers – large and small – and how you can improve spray distribution, monitor output and improve efficacy.

Improving the efficacy, coverage and management of your pesticides will be of imperative this year. Learn how to calibrate air blast, boom and small hand-held or back-pack sprayers. We will demonstrate the utility of water sensitive paper and discuss alternate row spraying and nozzle selection. SWD management will be part of the workshop. There will be time for questions and discussion. **2 DEC Pesticide Re-certification credits available.**

Mead's Orchard, 15 Scism Rd, Tivoli, NY 12583

Wed. May 22, 2pm-4pm *Jim O'Connell 845-943-9814*

Winney's Farm, 113 Winney Rd., Schuylerville, NY 12871

Tues. May 28, 2pm-4pm *Laura McDermott 518-791-5038*

Valley View Farm, 228 Route 9N, Ticonderoga, NY 12883

Thurs. May 30, 10am-12pm *Laura McDermott 518-791-5038*

Please let us know you're coming! Call contact listed for each location; **if leaving a message include name/phone number.**

ANNOUNCEMENTS

SPECIALTY CROpportunities Online Resource

A new online resource, called “SPECIALTY CROpportunities”, was recently launched on the Ontario Ministry of Agriculture website. This resource was designed to assist growers considering production of a wide range of non-traditional crops, including specialty fruit and nuts and vegetables. It has information on agronomics, marketing and pests for 100 non-traditional crops, and plans to add more crops in the future. While this was designed for Ontario growers, much of the information should be broadly applicable to all growers in the Great Lakes region.

You can find it at the following link: <http://www.omafra.gov.on.ca/CropOp/en/index.html>.

Cornell Nursery Guide for Berry and Small Fruit Crops Updated for 2013

This two-part nursery guide designed for commercial berry growers cross references scores of cultivars with the wholesale nurseries that sell them. The guide is updated on an annual basis in early spring each year. To access the guide go to: <http://www.fruit.cornell.edu/berry/nurseries/>.

Cultivar pages for each crop (see menu in left-hand column) list specific cultivars followed by a list of links to the contact information for the various nurseries that sell them.

- [Strawberries](#) (June-bearing, Day Neutral, and Alpine)
- [Raspberries](#) (summer-fruiting red, black, purple; fall-fruiting red and yellow)
- [Blackberries etc.](#) (Thorny, thornless, primocane-fruiting, trailing, plus blackberry x raspberry hybrids)
- [Blueberries](#) (northern and southern highbush, lowbush, rabbit-eye)
- [Cranberries etc.](#) (including Lingonberries and other members of the blueberry/cranberry family)
- [Currants](#) (black, red, pink, white)
- [Gooseberries etc.](#) (including currant x gooseberry hybrids)
- [Elderberries](#) (American and European)
- [Juneberry/Saskatoon](#)
- [Haskap/Honeyberry](#)
- [Hardy kiwifruit](#)
- [Miscellaneous](#) (small fruits such as aronia, beach plum, fig, goji, mulberry, pawpaw, seabuckthorn and more)

The nurseries page (<http://www.fruit.cornell.edu/berry/nurseries/nurseries.html>) contains an alphabetized listing of businesses in the US and Canada which expressed interest to be included in the guide (no endorsement or discrimination is intended).

How can my nursery be listed? Contact us each fall by November 30 and we'll add you to or update your entry for our Nursery Guide. Please provide the following information: Nursery Name, Mailing Address, Phone, Fax, Web Address, Email Address, and Cultivars you currently sell

Mail or email (Attention or Subject line "**Berry Nursery Guide**") the information to: Cathy Heidenreich, Cornell University Dept. of Horticulture, Geneva Campus, 630 West North Street, Geneva, NY 14456 or mcm4@cornell.edu. In addition, we would be glad to receive your catalog each year.

RMA Releases Fact Sheet on Crop Insurance for Organic Farming

USDA Risk Management Agency has published a 3-page fact sheet titled "Organic Farming Practices." The fact sheet provides a general overview of the crop insurance program, and details how RMA is working to improve crop insurance for organic producers based on the Office of Inspector General (OIG) audit of the federal crop insurance program for organic farming practices. The PDF is available online at <http://www.rma.usda.gov/pubs/rme/2013organicsfactsheet.pdf>

ANNOUNCEMENTS, continued

AXXE Broad Spectrum Organic Herbicide Approved for Use in NY

BioSafe Systems has introduced AXXE, an environmentally responsible, organic certified, non-selective herbicidal soap labeled for agricultural and horticultural applications, specifically; fields, greenhouses, nurseries, commercial turf, and landscapes.

AXXE works on contact, provides a quick burn-down, and does not volatilize or migrate through soil. AXXE biodegrades quickly, leaving no harmful residue behind. Control a wide range of grasses, weeds, mosses, liverworts, and lichens with AXXE. Tank mix AXXE with a compatible systemic herbicide for total weed control. AXXE is available in 2.5, 5, 30, 55, and 275 Gallons. For more information see the NY State label here: <http://128.253.223.36/ppds/531476.pdf>.

On-line Survey for Spotted Wing Drosophila in Caneberries: Results will Support Requests for Expanded Insecticide Labeling

We are asking for information about raspberry and blackberry growers' experiences with spotted wing drosophila (SWD) to help support requests to the EPA for expanded insecticide labeling to control SWD.

This information will also be valuable to provide background information for grants supporting research to guide management recommendations.

All information collected will be summarized; individual growers will not be identified, and information will remain confidential. Please complete the survey only once.

Thank you for your assistance in collecting this information. Once it is completed, the results of the survey will be shared with all interested respondents.

For more information growers may contact Diane Brown, Michigan State University, 269-944-4126 or rytlews1@anr.msu.edu.

Go to the SWD survey by clicking on this link: <https://www.surveymonkey.com/s/GTF36QL>.

Work Agreements and H2-A Employees

By Sandy Buxton, Capital Area Ag & Hort Program, Cornell Cooperative Extension

Each employee who arrives and works on an H2-A visa has an ETA-790 form which can serve as a work agreement documenting the overall contract of work skills, hours, employer and employee info in the employee's first language according to the Department of Labor. However, this form does NOT meet the requirements for the pay notice information which now must be renewed every year documenting pay rate and pay dates. This form must be signed each year as well.

The solution from NYS DOL is to attach an additional form to the ETA-790 in both the employee and the employers language. This needs to be signed and copies shared between both parties to meet the regulation. There must be a form for each individual employee AND there must be a general form posted in all applicable languages for review by all employees.

A reminder that use of Department of Labor template forms from the DOL website <http://labor.ny.gov/formsdocs/wp/ellsformsandpublications.shtm> offer "automatic" compliance. They have posted a variety of forms in a number of languages to facilitate providing information.

Cornell Cooperative Extension and the staff assume no liability for the effectiveness of results of any chemicals for pesticide use. No endorsement of any product is made or implied. Every effort has been made to provide correct, complete, and current pesticide recommendations. Nevertheless, changes in pesticide regulations occur constantly and human errors are still possible. These recommendations are not substitutes for pesticide labeling. Please read the label before applying any pesticide. Where trade names are used, no discrimination is intended and no endorsement is implied by Cornell Cooperative Extension.

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