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# Weekly Vegetable Update

**ENYCH Program Educators:**

Vegetables

**Chuck Bornt**

Cell: 518-859-6213

Email: [cdb13@cornell.edu](mailto:cdb13@cornell.edu)

**Amy Ivy**

Phone: 518-561-7450

Email: [adi2@cornell.edu](mailto:adi2@cornell.edu)

**Teresa Rusinek**

Phone: 845-340-3990 x315

Email: [tr28@cornell.edu](mailto:tr28@cornell.edu)

**Crystal Stewart**

Cell: 518-775-0018

Email: [cls263@cornell.edu](mailto:cls263@cornell.edu)

**Maire Ullrich**

Phone: 845-344-1234

Email: [mru2@cornell.edu](mailto:mru2@cornell.edu)

Fruit

Laura McDermott

Cell: 518-791-5038

Email: [lmg4@cornell.edu](mailto:lmg4@cornell.edu)

Berries

James O'Connell

Phone: 845-691-7117

Email: [jmo98@cornell.edu](mailto:jmo98@cornell.edu)

Berries & Grapes

Michael Fargione

Phone: 845-691-7117

Email: [mjf22@cornell.edu](mailto:mjf22@cornell.edu)

Tree Fruit

Kevin Iungerman

Phone: 518-885-8995

Email: [kai3@cornell.edu](mailto:kai3@cornell.edu)

Tree Fruit & Grapes

*Layout:*

*Carrie Anne Doyle*

*Content Editor:*

*Crystal Stewart*

This is the last publication of the *Weekly Vegetable Update* for 2013. We'll be shifting gears and publishing a monthly newsletter with more comprehensive articles and research reports over the winter. This transition seemed like a good moment to reflect, so rather than asking for the weekly regional reports from our educators this week, I asked for a few thoughts about where everyone is at this point in the season. Teresa sent along this note, which we agreed summed up the sentiments of the whole group. Thank you Teresa. And thanks to all of you for reading along every week. -CLS

This is the eighteenth year/season that I've had the honor of working with farmers in the Mid-Hudson Valley through Cornell Cooperative Extension. Because this is the last issue of the weekly newsletter, it seems to be a good time to reflect on the past season and maybe also on the past eighteen years. I feel I sound much like many of the farmers I work with when I say this but, "things did seem simpler back then." Since I started working with you folks there have been so many new diseases and insects that have taken hold in this area. It seemed to start with onion bulb mites, then bacterial wilt in cucurbits, late blight, *Pythophthora capsici*, Brown Marmorated Stink Bug, downy mildew, northern corn leaf blight, etc. etc, and, of course, if none of those got your crop the deer did! To add to this there has been a trend of extreme weather events that have led to huge losses as well as exacerbated pest issues.

This past season we had a cold, wet start. Crops went in late and there were serious problems with fruit setting. Diseases were prevalent throughout the season. I feel organic growers often have an especially difficult time with the limited number of pesticides available to them and land for rotation. Resistant varieties are so important. New pests like Brown Marmorated Stink Bug really concern me especially in organic production of peppers, tomato, tomatillo, and beans. I've seen them in other veg crops too, but not as damaging.

Despite these challenges and risks, farmers continue to grow wholesome crops that sustain society. I am so impressed with the ability of our growers to adapt and work so hard at doing this. In the same eighteen years, I've seen a lot of innovations, diversification, engagement and successes in new varieties, better yields, and expanded markets. I see the next generation working and building on the farm. When people ask me where I learned about farming they expect me to say that I learned at college, but I always say that I learned from the farmers first. I hope you have a good rest this winter and look forward to working with you next season.



## Boron Deficiency in Brassicas

Every year, I see more growers putting in brassica crops, especially CSA farms and growers marketing through farmer's markets. It's not unusual to find several types of kales and cabbages, cauliflower that's purple, orange, green, and even a few Asian greens. Some of the brassicas, like rutabagas, store well and can be offered in winter shares/markets. Also the nutritional and health benefits of brassicas have been widely published and have helped to expand the market. As consumers palates and nutritional desires grow, farms in this region look to offer a diversity fresh produce to their customers and brassicas have filled some of that niche.

For some growers brassica crops are fairly new. There is certainly much to know about growing brassicas successfully, but one thing that I've seen growers run into problems with often is boron deficiency.

*[Brassicas], in particular cauliflower, rutabaga, and turnip are susceptible to boron deficiency. Boron deficiency occurs most frequently on coarse or sandy soils, soils with a pH greater than 7.0, and soils subject to*

*excessive leaching. Boron also becomes less available during long periods of drought. Irrigation to maintain an even soil moisture may prevent this disorder. Soils deficient in boron can be treated with a boronated fertilizer. In high pH soils, foliar applications are preferred. Application of boron after symptom expression is usually too late to prevent the problem. Some cultivar variation in susceptibility to boron deficiency exists, but no cultivar is completely resistant. Source: <http://extension.umass.edu/vegetable/diseases/brassica-boron-deficiency/>*



Boron deficiency in cauliflower. *UMass*

*extension.umass.edu/vegetable/diseases/brassica-boron-deficiency/*

A soil test before you plant your crop next season can help you determine if you need to apply boron and how much. When you submit the sample, be specific that you are planting brassicas and not mixed vegetables. Agro one soil testing lab <http://www.dairyone.com/AgroOne/soiltesting/Form%20V.pdf> gives recommendations specific to many brassica crops and your soil type.

One more thing to note is that boron can be bound up right after a lime application, so try to apply lime, if you need it, well in advance of a brassica crop planting. -TR

## Onions Breaking Down? You Aren't the Only One

Some onions are cutting poorly these past couple of weeks. It does not seem to be varietal or necessarily practice-related. My estimation is that it was those 2 weeks of excessive heat that caused irreparable damage to the tissue, the results of which we are seeing now.

We all know that somewhere in the upper 80's/low 90's onions stop growing. This is because they are cool weather plants and on those hot days they spend all of their energy just respiring and trying to get water to the tips of those leaves and there is no energy left for growth. Depending on how many other stressors are occurring at the same time as the high temperatures (drought, lack of fertility, disease/insect infestation) the temperature may not have to be so high. And, you all know what I mean when I say "and then they go backwards". Somewhere in the 90's, again depending on a list of other factors, the onions can actually look like they are retreating and getting smaller. Most of this is the result of tip-burn and all of the other leaf-weakening events that come with excessive heat.

What I think happened this year is that the excessive heat for that unusually long period of time (2 weeks, really, without pause) sort of overstressed that new leaf that was trying to form in the center of the onion. It didn't get

enough food to form the cells correctly and now we are seeing onions with an internal ring of decay. All pretty much at the same location in the onion. Because all of the varieties stop putting on leaves at different times it is tough to count back (like a tree) to see if my theory is correct.

So what? Well, since there is nothing you can do about weather, the best you can do is look to see what varieties you grew were hardest hit, while others remained less affected, if you had such a case. And yes, I just said earlier there didn't seem to be much a varietal relationship but it's still worth examination. I expect, however, the varieties that were least affected by internal decay are also the ones with the lowest yields before grading.

And what about research? Data have been collected by Ray and Dr. Beer from 3 farms that trialed sprays of Actigard for its possible ability to reduce bacterial disease problems. Dr. Beer and his crew will analyze harvested bulbs in storage and in the laboratory to determine any differences in bacterial problems in the onions from sprayed plots versus unsprayed plots. Hopefully, over the next couple of months, the data will be analyzed and we will have information for you at the winter meetings. -MRU



## Garlic Research Trials Update

Those of you who had the misfortune of riding in my car (or coming within 30 feet of it) this year know that I was working on garlic quite a lot. The results of all those trials are in, the numbers are being crunched, and full reports will be available within a month on our website ([cdvsfp.cce.cornell.edu](http://cdvsfp.cce.cornell.edu)) and will be also be available in our monthly newsletters throughout the winter. In the meantime, here are a few tidbits:



Abby, Chuck, and Bryan Samascott cleaning garlic from the weed control trial hosted by Samascott's Orchards

**Post-Harvest Trials:** Once again we trialed an assortment of post-harvest handling techniques on three farms in Eastern New York. The results of the high tunnel drying were similar to last year—the take home message is that high tunnel drying is faster (and therefore reduces the window for certain diseases to invade the bulbs) and does not damage the garlic as long as temperatures do not exceed 121°F in the tunnel. This year we cut the tops at a variety of heights, ranging from 1.5 inches to 10 inches to see if there were differences in quality or bulb weight. Last year we found that uncut tops yielded slightly heavier bulbs. This year there was no significant difference in

weight between any of the treatments. Interesting. More on this later.

**Fertility Trials:** We conducted organic fertility trials in three locations this year, on soils ranging from sandy to high-OM gravelly loam. These numbers need some more work but what we know so far is that 50 lbs of N in a season is not enough, and yields suffer. The question of whether 100 lbs is in fact adequate and 150 is excessive is still being examined. The

question of timing is also being examined. However, we can say that placing 75% of the total N in-furrow in the fall (slow release forms only) is a good practice. Also, remember to discount the N that you get from your organic matter or from nitrogen fixing cover crops.

**Weed Control Trials:** We conducted two weed control trials this year (organic and conventional products): One on Long Island and one in the Hudson Valley. Both yielded somewhat variable results. The Long Island trial was planted days before Hurricane Sandy, and the soil was exceptionally crusted as a result. The Hudson Valley Trial was hit by significant hail, which probably affected yields. These numbers are still being analyzed, and will be available online. Stay tuned. -CLS

## October 18 Deadline for NRCS Conservation Programs

*By William Jones, District Conservationist, NRCS, USDA*

New York Natural Resources Conservation Service (NRCS) announces **October 18, 2013** as the application cutoff date for the Environmental Quality Incentives Program (EQIP) and Wildlife Habitat Incentives Program (WHIP) for Fiscal Year (FY)2014. Applications accepted after October 18, 2013 may be considered for funding if additional application rounds are announced. All applications are competitive based on national, state and locally identified resource priorities.

Although a new Farm Bill has yet to be approved, applicants may still apply for funding through the same programs offered through the 2008 Farm Bill. At the time of application, applicants must specify the resource concern(s) that they intend to address. Once further guidance on the 2013 Farm Bill is provided, NRCS will work with applicants to transfer applications to the appropriate conservation program.

**Environmental Quality Incentives Program (EQIP):** offers financial assistance for practices which address soil erosion, water quality and habitat degradation. Practices implemented through EQIP include strip cropping, grassed waterways and manure storage facilities. Focus areas within the EQIP program include soil health, livestock waste, habitat, forestry and grazing.

**Wildlife Habitat Incentives Program (WHIP):** helps participants restore and protect fish and wildlife habitat in grassland and shrubland areas.

For information on applying go to: [http://www.nrcs.usda.gov/wps/portal/nrcs/detail/ny/programs/?cid=nrcs144p2\\_027058](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/ny/programs/?cid=nrcs144p2_027058)

You may apply by visiting your local NRCS field office, which can be located at: <http://offices.sc.egov.usda.gov/locator/app?state=NY>

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## Meetings and Notices

Thursday Oct. 17, 10am - 4pm

### Organic Cover Crop Workshop and Tour

USDA-NRCS Big Flats Plant Materials Center, 3266 Route 352, Big Flats, NY 14814

This workshop will feature speakers from Cornell University presenting in depth information on cover cropping and reduced tillage for vegetable growers with an emphasis on organic systems. There will be a tour of the time of seeding cover crop demonstration with single and multiple species of cover crops, reduced tillage tools and a row crop interseeder. Lunch available for \$12.00 and CCA credits available



For a detailed schedule, speakers, topics and tour sites go to <http://www.nofany.org/events/field-days/organic-cover-crop-workshop-and-tour> or contact Paul Salon, USDA-NRCS, 607-562-8404, paul.salon@ny.usda.gov.

Register online at <http://events.constantcontact.com/register/event?llr=7ex5qzeab&oeidk=a07e7j0eqy23d4363df>

## Grower Classifieds

**Oat straw for sale:** Washington County. Small square bales. Contact Albert Sheldon for more info. at 518-796-6564.

**Certified organic oats for sale, feed or seed:** \$220/ 1000 lb. tote bag. Pick-up, delivery available, add trucking. Contact Chris Cashen, 518-929-5782

## Weekly and Seasonal Weather Information

Site	Growing Degree Information Base 50 <sup>o</sup> F			Rainfall Accumulations		
	2013 Weekly Total 9/18—9/24	2013 Season Total 3/1 - 9/24	2012 Total 3/1—9/24	2013 Weekly Rainfall 9/18—9/24 (inches)	2013 Season Rainfall 3/1—9/24 (inches)	2012 Total Rainfall 3/1—9/24 (inches)
Albany	57.9	2464.5	2913.7	0.69	26.07	24.53
Castleton	53.6	2360.3	3026.2	0.54	24.92	22.35
Chazy	55.9	2220.6	2937.7	0.25	23.53	18.43
Clifton Park	50.7	2433.3	2837.3	0.58	28.00	26.47
Clintondale	65.5	2761.6	2268.0	NA	NA	NA
Glens Falls	35.4	2110.7	2515.6	0.58	20.80	19.01
Granville	NA	NA	2658.5	NA	NA	25.08
Guilderland	NA	2186.3	2674.0	NA	7.23	8.50
Highland	60.0	2729.3	2969.9	0.53	22.90	26.62
Lake Placid	23.1	1417.5	NA	0.19	24.36	NA
Montgomery	55.1	2848.5	2695.0	0.55	24.55	NA
Monticello	32.4	1939.4	2493.5	0.00	0.28	2.68

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