



NEW HAMPSHIRE VEGETABLE, BERRY & TREE FRUIT NEWSLETTER

Volume 4:2

April 2008

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SARE GROWER GRANT REPORT:

SWEETPOTATOES AND NITROGEN NEEDS

BY LORI SCHREIER AND JAMES WARREN OF FERTILE FIELDS FARM,
WESTMORELAND NH.

After successfully growing a small crop of sweet potatoes in our sandy loam in south western NH, we began to plan a larger crop for our CSA and farmer's market. While it is possible to grow sweet potatoes in many areas in New England, being quite near the Connecticut River gave us some extra assurance of a longer frost-free season in the fall.

When reviewing the literature on sweet potatoes and nitrogen fertilizer application, we discovered a large variation in the recommendations. As organic growers we were seeking healthy sustainable practices so we developed a research project to examine different nitrogen application levels. With the help of Carl Majewski, ((UNH Cooperative Extension Cheshire County), we wrote a SARE (Sustainable Agriculture Research and Education) grant proposal that turned our 2007 growing season into a meticulous research project. After consulting with Becky Grube (UNH Cooperative Extension Durham) about her variety and taste trials, we chose the short season variety, Beauregard for our experiment, which requires a length of time similar to winter squash, (90-100 days), has a good marketable yield, and good flavor.

Although we have the advantage of a frost protective microclimate in fall, we also seem to have less rain than the surrounding area, and in the summer of 2007 we had a severe drought that showed its impact on our un-irrigated project. However, a few things still became clear. Even though we could not see the full effects of the fertilizer releases, it was obvious that even the test beds without any added soybean meal (our fertilizer of choice for high amounts of slow release organic N and no added phosphorous) grew fine crops of sweet potatoes. There was no statistically significant difference in yield on the beds with different levels of fertilizer (either minimal compost only or compost with 60 lbs. N/acre or 120 lbs. N/acre). Another finding was that the sweet potatoes grown on the driest, sandiest soil, while having the lower yields, gave the highest brix reading (test for sweetness) both before and after the curing process.



Sweet potatoe vines growing.

Not everyone has the room for these massive sprawling vines or the sandy loam that they prefer, but it became clear to us that sweet potatoes

can be grown successfully in New England. With proper curing and storage conditions these hearty nutritious roots can make a valuable addition to your own and your customer's tables.

Editor's Note: Do you want to test an idea like this on your farm?? If so, consider submitting a proposal to the SARE Farmer-Grower Grants Program. A successful project can receive up to \$10,000. Proposals are typically due in December – so start thinking now. Contact Becky Grube or Seth Wilner (Extension Educator, Sullivan County) or see <http://www.sare.org> for more information.

SWEETPOTATO RESEARCH UPDATE

BY BECKY GRUBE

As Lori and James indicate in their article, there has been a lot of recent interest in growing sweetpotatoes in our area. Last year (2007) was the second year of my research on sweetpotatoes at UNH Woodman Horticultural Research Farm in Durham. This year, I looked at 1) which varieties are best adapted to shorter growing seasons and 2) whether rowcovers or IRT mulch increased yields, and 3) the effects of storing and curing sweetpotatoes on eating quality. My results are summarized in a nutshell below. Those interested in more details can contact me for a full report, or you can look online at the proceedings of the New England Vegetable and Fruit Conference (http://www.newenglandvfc.org/pdf_proceedings/SweetPotatoesNE.pdf).



Sweet potatoes curing in greenhouse.

VARIETIES

The best variety for commercial production was 'Beauregard', with high yields and large roots that were the color and flavor typical of supermarket sweetpotatoes. 'Georgia Jet' had high yields and excellent flavor, but a tendency to crack that limited marketability. 'Vardaman' had the highest flavor ratings, but produced small roots and had lower yields. 'Carolina Ruby' was also preferred by tasters because of very intense orange flesh color and unique textured (rough) deep red skin. It had high yields, but many roots were misshapen. Other varieties that may be worth a try include white-fleshed ones such as 'White Yam', 'O'Henry', and 'Japanese'.

SOURCES OF PLANTING STOCK

Sweetpotato plants ('slips') were purchased from four sources: Steele Plant Company (Gleason, TN), Scott Farms (Lucama, NC), Mapple Farm (Weldon, New Brunswick, Canada), and Sand Hill Preservation Center (Calamus IA).

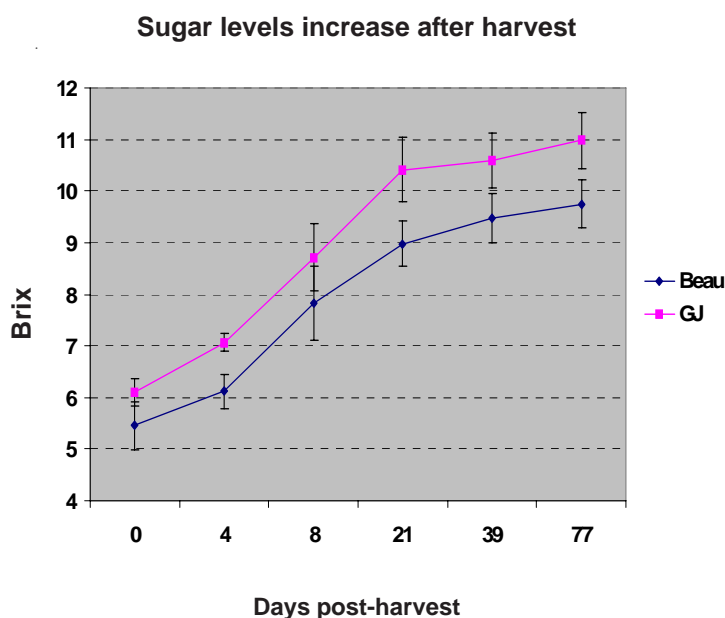
Certified organic slips are available only in extremely limited quantities (check Mapple Farm and Sand Hill). Certified organic growers must document their commercial unavailability with their certifier before using conventional planting stock. It is possible to produce your own slips from roots that you have saved. There was an excellent article in *Growing for Market* last year on this topic. However, it is important to save only the highest quality and disease-free roots as propagating material in order to maintain each variety's characteristics, should you decide to go this route.

ROWCOVERS OR IRT MULCH?

Preliminary results from 2006 and 2007 showed no significant effect on yields of using rowcovers early in the growing season (as opposed to leaving vines uncovered). We also saw no benefit in yields to using IRT (infra-red transmitting) mulch over standard black plastic mulch. In 2007, we used BioTelo biodegradable mulch and enjoyed the ease of digging without needing to pull plastic.

STORING AND CURING

After harvest, brix, which corresponds with sugar levels climbed significantly and consistently in all varieties over several weeks. You can see these results below for Beauregard and Georgia Jet. **What this means is that, for best quality, sweetpotatoes should not be eaten immediately after digging! Wait at least one week, and ideally up to three weeks, for maximum sweetness.** This is very important for those selling at farms stands or farmers' markets. You will want to store the roots for a short while before selling them, or do a good job educating your customers so that they wait to eat them! Curing time (0, 4, or 8 days in an unheated greenhouse) did not have a similar benefit. It *may* have increased storage life, but that effect wasn't clear in our studies.



KOCIDE NO LONGER OMRI-LISTED

Organic growers should be aware that the DuPont fungicides Kocide2000 and Kocide3000 (both cupric hydroxide) have been withdrawn from the OMRI products list. According to a statement from DuPont, these materials were withdrawn in response to an administrative issue between the EPA and the National Organic Standards Board (NOSB). Due to a change in administrative procedures, the inert ingredients in Kocide 2000 and Kocide 3000 are no longer accepted by OMRI. DuPont hopes to resolve the situation, but in the meantime, the materials remain off the OMRI list. Other copper fungicides remain on the list, including several formulations of fixed coppers and basic copper sulfate. Fixed coppers include several compounds such as copper hydroxide, copper oxide and copper oxychloride.

Because OMRI is not a regulatory organization, the ultimate decision about the use of particular products rests with the growers' accredited certifier. Vickie Smith encourages any growers certified with the NH Department of Agriculture, Markets and Food to contact her with any questions at (603) 271-3685 or email: vsmith@agr.state.nh.us.

NEW ENGLAND FARM WORKERS' COUNCIL

BY LINDA ELLIS, NEFWC, INC.

Have you ever wondered how New England Farm Workers' Council (NEFWC) helps New Hampshire? NEFWC is a federally funded non-profit agency representing the needs of migrant and seasonal farm workers under Section 167 of the Workforce Investment Act. What does that mean to New Hampshire and to its farm community?

NEFWC is dedicated to providing the migrant and seasonal farm worker with vocational and supportive services to seek upgrading job skills in agriculture or who seek to obtain a position that is non-agricultural. Did you know that a seasonal worker is defined as an individual that works in agriculture for a specific period of time every year and lives in the community? Even if you work at the same farm each season year after year, you are considered a seasonal farm worker and may qualify. If you're a farm owner and know of a farm worker in need of assistance or training to enhance their lives and possibly the productivity or efficiency needs at your farm, we may be able to assist.

Supportive services include assistance in obtaining a GED, Drivers' License including CDL, computer training or learning English as a Second Language. NEFWC can provide funding for eyeglasses and clothing articles that are needed for work. In some cases, transportation, On-The-Job training even emergency services can be arranged.

Those are just some of the supportive services that are available to qualifying individuals. Just give us a call and let us determine if you may be eligible. We are located at 50 Bridge Street, Suite 103 in Manchester, NH and can be reached at 603-622-8199 or 877-527-3276.

NH INTEGRATED PEST MANAGEMENT NEWSLETTER AVAILABLE!

Alan Eaton, UNH Cooperative Extension Entomologist and Integrated Pest Management (IPM) Specialist, has just published the first of this season's IPM Newsletter. In this newsletter, Alan publishes timely information about what to look out for and what is going on in the world of key berry and tree fruit pests. The first issue, March 25, 2008, has been posted on the Cooperative Extension web site at: <http://extension.unh.edu/Agric/AGPMP/IPMNews.htm>. Topics for this issue include honeybee health (colony collapse disorder), traps for monitoring for various crops' insect pests, and when to start monitoring for tarnished plant bug – and many more good tidbits. Make sure to check it out on the UNH Cooperative Extension website listed above!

The second issue has been posted as well. It includes information on bud stage names for tree fruit, pear psylla, tarnish plant bug on apples, peach leaf curl, apple scab, leafminers, mummyberry disease and black knot disease.

If you are interested in receiving an email notification when each new issue of the IPM Newsletter is posted on-line, please contact Suzanne Hebert at suzanne.hebert@unh.edu or 862-3200.

The Fruit Pest Phonenumber is now open. Call 603-862-3763.

AT A GLANCE UNH Cooperative Extension Vegetable & Fruit Resources

Soil Testing Call 862- 3200 or visit:
<http://extension.unh.edu/Agric/AGPDTS/SoilTest.htm>

Plant Diagnostic Lab Call 862-3841 or visit:
<http://extension.unh.edu/Agric/AGPDTS/PlantH.htm>

Arthropod Identification Call 862-3200 or visit:
<http://extension.unh.edu/Agric/AGPDTS/ArthroID.htm>

Fruit Pest Phone Update (seasonal): 603-862-3763

UPCOMING MEETINGS AND EVENTS

Wed Apr 16. New Hampshire Tree Fruit Twilight Meeting. Alyson's Orchard, Walpole NH. 5:30-7:30pm. For info, contact George Hamilton at george.hamilton@unh.edu or 603-641-6060. **TF, PAT.**

Wed Apr 16. Organic Greenhouse Tomato Production Twilight Meeting. Old Athens Farm, Westminster VT. 4:00-7:00pm. For info, contact Vern Grubinger at vernon.grubinger@uvm.edu or 802-257-797 ext 13. **V, O.**

Wed May 21. New Hampshire/Massachusetts Tree Fruit Twilight Meeting. Kimball Fruit Farm, Hollis, NH. 5:30-8:00pm. Cost: \$20/person. For info, contact George Hamilton at george.hamilton@unh.edu or 603-641-6060. **TF, PAT.**

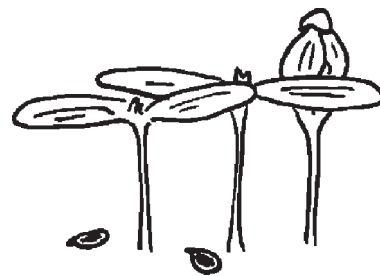
Wed June 11. New Hampshire Fruit and Berry Twilight Meeting. Butternut Farm, Farmington NH. 5:30-8:00pm. For info, contact George Hamilton at george.hamilton@unh.edu or 603-641-6060. **TF, SF, PAT.**

Wed July 9. New Hampshire Tree Fruit Twilight Meeting. Location TBD. 5:30-8:00pm. This meeting will focus on research projects of Dr. Tracy Leskey and Starker Wright from the USDA/ARS Appalachian Fruit Research Station in Kearneysville, WV. For info, contact George Hamilton at george.hamilton@unh.edu or 603-641-6060. **TF, PAT.**

Fri-Sun Aug 8-10. NOFA 34th Annual Summer Conference. Amherst, MA. Workshops on organic farming, gardening, land care, homesteading and more. For info, contact Julie Rawson at 978-355-2853 or email Julie@nofamass.org or see www.nofamass.org. **AC, O.**

Fri-Sun Sept 19-21. Common Ground Country Fair. MOFGA Common Ground Education Center, Unity, ME. For info, visit www.mofga.org. **AC, O.**

Meeting topics: F = flower, O = certified organic, SF = small fruit, TF = tree fruit, V = vegetable, AC = all crops. PAT = pesticide applicator recertification credits available, CCA = certified crop advisor credits available.



Subscriptions – This newsletter is free online at <http://ceinfo.unh.edu/Agric/AGFVC.htm>. Email becky.grube@unh.edu if you would like to receive email notification when a new issue is available. You can subscribe using the form available at the website above if you would prefer to receive a paper copy via U.S. mail.

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