

SPRING 2009



NEWS

NORTHERN
GRAIN
GROWERS
ASSOCIATION

To Encourage and
Support the Production,
Processing, and
Marketing of Grains
in Vermont and the
surrounding areas.

Northern Grain Growers Association Update

Brent Beidler

As I noted in the introduction to our first edition of this newsletter, the impetus for a lot of the Grain Growers' activities began at the winter meeting last April. A core group of individuals stepped forward to form an ad hoc planning group to formalize this organization. I'd like to take this opportunity to update you on what we've accomplished over the winter months.

Organizational details:

Over the winter we have been drafting organizational bylaws and structure as well as membership considerations. Membership is open to everyone with an executive committee consisting of at least four farmers and three industry representatives (educators, extension, students, bakers, millers). In addition there will be a chair, vice chair and treasurer/secretary.



Non-profit status: The committee met with an attorney who suggested the possibility of fiscal sponsorship relationship which would allow NGGA to function under the auspices of an already existing non-profit organization. NOFA VT was approached as a possible fiscal sponsor and the committee continues to work on the details related to that relationship. It is important for NGGA to have non-profit status to be able to receive funding for future projects.

Website: The committee met with Northeast Kingdom Associates in Glover, VT to start website design for NGGA. This opens up exciting possibilities for growers and consumers such as: a responsive listing of available grains for consumer purchase, educational information for consumers and growers, research results, archived newsletters, classified ads and cropping budgets for growers considering a crop. The website development is in process but the domain name is registered as: northerngraingrowers.org

Newsletter: The establishment of this newsletter has been a priority as an important communication tool. There has been a lot of positive feedback about the first newsletter and it has stimulated broad interest in our organization as a result.

Research: There are a lot of research projects being planned with interviews for funding currently taking place. Members of the committee have worked with UVM research staff and SARE personnel to find ways to make sure that the needs of grain growers are being met.

Winter conference: This year's conference is being held on March 19, at Vermont Technical College in Randolph Center, VT. Once again it will be an interesting blend of workshops for growers, bakers and other interested groups.

Organic Fertility for Winter Wheat – First Year Results

Susan Monahan and Sid Bosworth¹

Research on the effects of variety and organic sources of fertility for winter wheat production and bread quality is currently in its second year at the University of Vermont. The study is being conducted at the UVM Horticultural Research Farm in South Burlington, VT and the Cornell Baker Research Farm in Williston, NY.



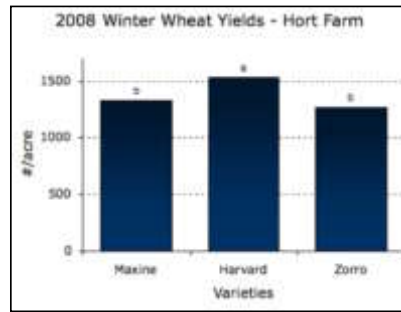
A randomized split block design with four replications was used at each site. The results reported in this article were recorded at the UVM Horticultural Research Farm from the first year. Soils at the Hort Farm are a loamy sand, and the test plots were irrigated as needed. Winter wheat was seeded on September 19, 2007 at a rate of 2 bushels/acre in 4' by 25' plots. The wheat was harvested on July 29, 2008 with a small plot combine.

Three hard red winter wheat varieties (Harvard, Maxine, and Zorro) were compared within nine fertility treatments (see below). The three cover crop treatments were planted in mid June and plowed down in late August.

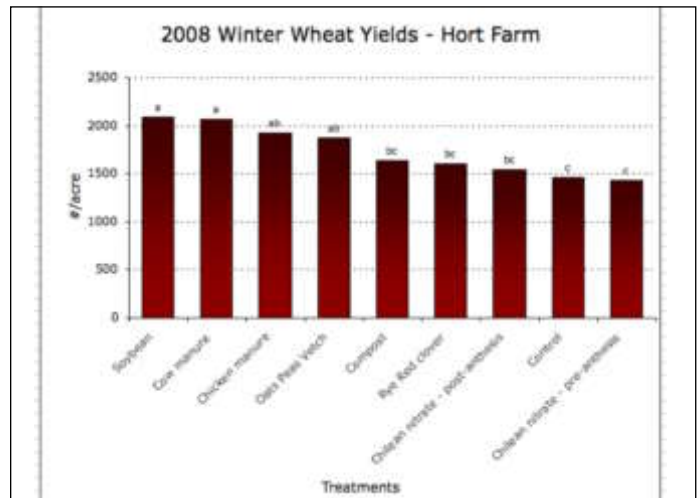
Fertility Treatments

- Cover Crop of **Soybeans**, contributed 5,596# d.m./acre
- Cover Crop of **25% Oats/ 60% Peas/ 15% Vetch**, contributed 3,566# d.m./acre
- Cover Crop of **60% Rye/ 40% Red Clover**, contributed 2,502# d.m./acre
- Finished **dairy manure compost** (tilled in just prior to seeding, at a rate to provide 50 lbs. of nitrogen/acre)
- Fresh **cow manure** (same management and N rate as Treatment 4)
- Chicken manure** compost (same management and N rate as Treatment 4)
- Chilean Nitrate** – (50 lbs of N per acre, split application - half in the fall at seeding and half in the spring at **pre-anthesis**)
- Chilean Nitrate** - (50 lbs of N per acre, split application - half in the fall at seeding and half in the spring at **post-anthesis**)
- Control**—no treatment

Although it rained often last summer, the wheat did not lodge. Harvard's average yield was 1,534 lbs/acre, significantly higher than both Maxine—1,327 lbs/acre—and Zorro—



1,264 lbs/acre. Wheat grown with the soybean cover crop and cow manure amendments was the highest yielding—both treatments yielded over 2,000 lbs/acre. Also high yielding was the wheat grown with the chicken manure (1,926 lbs/acre) and the cover crop of Oats, Peas, and Vetch (1,875 lbs/acre).



Further analysis on nitrogen availability throughout the growing season will aim to explain the differences in yield observed here. Look for future results on protein and grain quality based on the effects of these organic fertility treatments.

¹ Graduate student and Associate Professor, Plant and Soil Science Dept., UVM

Buying Your Dream Machine

Ken Van Hazinga, TioGrain Farm

If you are going to grow grain you will need to purchase some special machinery. A primary piece of equipment that you will need for your grain enterprise is a combine. Combines are not all that common in the Vermont farming landscape. However, with a little effort they can be located quite easily.

Finding a Combine

If you live to the North and can muster doing business on both sides of the border head to Canada. Quebec has an excellent grain infrastructure and combines are plentiful. If you head to New York or Pennsylvania you can find a plethora of used grain machinery. It is also a good idea to locate ads from farm papers in these areas and follow the prices. Then when a machine comes up for sale you know the approximate worth of the particular make and model. Two great sources of grain equipment are the Northeast edition of FastLine (800-332-7854) and Country Folks (518-673-2448).



Many people have also told me that the internet is a great way to find machines. Talk to the locals because often you can find old combines and other equipment stashed away in sheds around the landscape.

Be Prepared When Opportunity Knocks:

If you are looking for a combine try and read the owner's manual for several different machines. This will provide you information on how different models operate. Although not the most stimulating reading, if you can go through the adjustment procedures on a machine you are considering buying you will have a good idea of the condition of the combine and how hard it will be to operate and repair. And believe me you will be repairing it! Parts availability is also of prime importance. It is a good idea to purchase a parts manual so you can give the part number to a local dealer. Chances are the local parts guy has never heard of a "lower tailings auger slip clutch". There are a number of tractor and farm machine junk yards throughout the Midwest that are an excellent source for used parts.

Combine Checklist

Always test drive the machine before deciding to purchase. Look to see if all the drive systems work including the brakes, steering, clutch/hydraulic transmission. The machine has to drive forward easily to work properly. Run the combine at full speed and listen for bad bearings, loose belts, and other machine parts knocking. Check the condition of the belts. You will have to repair all worn belts before operating. Look in the grain tank and on the augers for rust. If the combine is not cleaned, the grime and dirt will hold moisture and rust through the body parts (fiber glass is a good fix for this). Check and make sure there is a place for a fire extinguisher on the machine. Combines do burn up from time to time. Oil soaked grain dust fires are nearly impossible to put out with water. Check out a combine junk yard and you will see that more combines end up there due to fire than over use. It is always a good idea to hire someone with combine experience to check over a machine before you make a big purchase.



Ken Van Hazinga

Getting the Machine Home

If the machine is close to home drive it. Since the machine is oversized it will cost \$1000 – \$2000 or more to move by truck. It is worth paying a professional to transport the combine. Bad things generally happen to good combines due to "no ones fault". Remember if it falls off the truck half way home it's the truck driver's mess to clean-up not yours.

Developing A Grain CSA

by Ben Lester

Co-founder of Wheatberry Bakery and The Pioneer Valley Heritage Grain CSA

More and more each day, communities all over the United States are concerned about their food. Where it comes from, how it is grown, and who benefits from its sale. While our Federal Farm Bill primarily subsidizes major agribusiness, whose bottom line is shareholder profit (not to mention executive bonuses and vacation homes) we should be chastising law makers and representatives to change this paradigm. But the most powerful and practical thing to do right now is to build a better system. This is exactly what the CSA is all about.

We have seen vegetable CSAs blossom from their start in the mid 1980's to well over a thousand nationally, and recently there is a sudden expansion in their scope. Meat CSAs, winter root vegetable CSAs, and grain CSAs are the new frontiers. Producing our own staples such as wheat, corn, rice, and beans is proving to be very exciting and economically viable. The community shares the risk with the farmer, and also shares the benefits of connection to the land, community, and farmers.

When we first proposed the grain CSA idea to our bakery customers (we own and operate Wheatberry Bakery and Cafe in Amherst MA) last summer after reeling from skyrocketing wheat and other food prices, the response was clear. Our community wants more influence on and connection to the food they eat. By our first annual shareholder's meeting six months later, we had filled our member goal of 50 shares (with \$15,000 in the bank) and our waiting list was beginning to grow. We partnered with White Oak Farm in Belchertown, MA and began pre-production meetings. We decided to plant 13 acres total and hope to fill as many as 100 shares this coming season, if our production permits. Each shareholder gets a mix of grains averaging 150lbs total with about 12 different crops (we are planting about an acre of each of wheat, oats, barley, rye, spelt, corn[popping and dent], dried beans [1 acre each of five heirloom varieties] flax, and sunflowers). For more details on the share please visit www.localgrain.org.

What are the catches? The biggest challenge we face is not operating costs or consumer interest but handling and processing. We've almost eliminated storage by distributing shares all at once at harvest time, but we still need to harvest, clean, sort, and bag. We have enough operating budget that we can invest in some of processing equipment (a fanning mill, a gravity table, and a dehuller). The grains are distributed whole so they keep for the whole year and shareholders can either get their own home mill for \$50-200 or come to us to have their grains milled at the bakery. There are many ways to set things up, and our



program is by no means the only way to go about it. Different mixes of crops are desirable to different groups and we've made a point to find out what our shareholders want. At this point wheat, rice and beans seem to be high on peoples list but they also are excited about the variety and more unusual possibilities such as teff, millet, and quinoa. We are especially excited by the natural companionship of grains and beans, both on the plate, and for the fertility and health of the soil.



Plot combine harvesting 2008 wheat trials

Our project partner The New England Small Farm Institute was also awarded an MAIC grant to develop processing infrastructure for grain production here in the Valley. This kind of agricultural re-localization is no longer a fringe idea but is on the minds of communities and governments alike. Our website has more information about the basics or you can contact me directly for more detailed information and assistance.

NOFA Bakers Panel News

By *Julie Sperling & Doug Freilich* of Naga Bakehouse

Red Hen Bakery, Naga Bakehouse, and La Meaunerie Milanaise presented "From Field To Hearth" at the 2009 NOFA Winter Conference. The panel discussed what characteristics make some wheat more suitable for baking high quality bread and to what degree can these characteristics be controlled by farmers and millers? The focus of the panel looked at what we can do to work toward producing high quality bread wheat locally?

The presenters stated, when it comes to local grain growing and consumption, there is an abundance of enthusiasm on the part of many consumers and farmers. But there is a real lack of knowledge when it comes to all the things (on both the growing and milling ends) that must go just right if the resulting flour is going to be suitable for making bread. Lately, there has been a greater push on the part of farmers to start producing wheat suitable for making bread.

Last Fall, a group of farmers and bakers were assembled by the UVM Extension Service for a trip to a mill outside of Montreal to learn about their milling operation and the close relationships they have with the farmers that grow for them. It was eye-opening for all in attendance—whether they were involved in farming, milling, or baking—to see what elements are required in producing high quality wheat.

The panel suggested that we need to continue to educate farmers, millers, and bakers about quality criteria and ways of

achieving them if we are ever going to see a real increase in usage of locally grown wheat.

There was lively discussion about the importance of field research, bakers trials, agronomy, technology transfer, and the use of falling number and early harvest techniques to safeguard the quality of wheat.

There was great emphasis on reuniting farmers and bakers to bring about a sense of mutual comprehension of the challenges facing wheat production. Specifically, that farmers need to understand the millers and bakers problems associated with poor wheat quality, and bakers need to understand that farmers do not control Mother Nature.

This dialogue between bakers, millers, and farmers is the first step to increase the farmers awareness of the impact of their growing methods on the bread making process and to sensitize bakers and millers to the fact that wheat is alive and changes each season under different environmental conditions.


In conclusion there was a keen desire on the part of bakers and growers to investigate the use of new varieties of locally grown wheat offering enhanced flavors, pronounced colors and the decreased environmental pressure with reduced transport cost associated with local grain production.

eOrganic Provides Organic Agriculture Information on the Web

A new web site about U.S. organic agriculture was recently launched on extension.org, a national initiative of the U.S. land grant system. **eOrganic**—a community of more than 250 researchers, educators, organic certifiers, non-profit staff, veterinarians, and farmers—has been working to gather and/or create research-based and experiential information of interest to organic producers. The site features organic dairy and vegetable farming systems.

Posted on the site are articles on herd health, grazing management, and other dairy issues; video clips on organic agriculture practices; and case studies of organic dairy farmers. The site also include a FAQ (*Frequently Asked Questions*) section on topics like soil amendments and organic certification, as well as an Ask an Expert section where eOrganic members nationwide respond to individual organic agriculture questions.

To visit the site: <http://www.extension.org/organic%20production>.



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