

NORTHERN GRAIN GROWERS ASSOCIATION



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

NEWS

Call for Classifieds

16th Annual Grain
Growers Conference
Turned Virtual

What the Pandemic May
be Doing to Enlighten
People About Flour

Testing Rye Bread Quality
with Various Falling
Numbers

Northeast Grainshed
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Call for Classifieds

Do you own an item you have been looking to sell?

Do you have a piece of equipment you'd like to rent out?

*Is there a piece of equipment you have been wanting to
purchase/rent?*

Are you in the market for seeds?

Do you have an idea for a work trade/swap opportunity?

**Look no further—the Northern Grain Growers
Association is offering a call for classifieds!**

Please email the following information to Catherine
Davidson (Catherine.Davidson@uvm.edu) by May 15th,
and your classified advertisement will be included in a
bulletin sent out to the Northern Grain Growers
Association's Membership by the end of May.

- ⇒ Name (First and Last)
- ⇒ Business name (if applicable)
- ⇒ Contact information (telephone and/or email)
- ⇒ Pickup address/location (if applicable)
- ⇒ Description of your item/offer/request
- ⇒ Photographs of the item (if applicable)
- ⇒ Timeframe you would like this to occur (i.e. "as soon as possible", "must be sold by the end of July", "work trade available for the harvest season", etc.)

16th Annual Grain Growers Conference Turned Virtual

By Catherine Davidson, University of Vermont Extension

This past fall/winter, the **University of Vermont Extension, Northwest Crops and Soils Program** (UVM NWCS) and the **Northern Grain Growers Association** (NGGA) were gearing up for the 16th Annual Grain Growers Conference planned for March 24, 2020. The Grain Growers Conference is always a great time for folks to come together from all over the region and country to discuss current research, production and processing practices, grains markets (local, regional, and national), and what the future holds.

This year's Conference was no exception. It was set to welcome Amber Lambke and Andrea Stanley as the morning and afternoon keynote speakers. Amber is the founder and president of Maine Grains, Inc., which can be found in specialty food stores and is used by bakeries, breweries, and restaurants throughout the Northeast. She is also a founding member of the Maine Grains Alliance. Andrea is the Owner/Maltster at Valley Malt in Hadley, MA with her husband, Christian. Andrea has been a leader of the Northeast Grainshed, a coalition of local farmers, maltsters, brewers, distillers, bakers, and retailers seeking to grow the local grain economy. In addition, the Conference had planned two baking sessions, a seed swap for grain and legume seed, and a networking social hour which was to include a sensory session tasting rye whiskey distilled by Tom Hardie and his team.

Given the state of the COVID-19/Corona Virus, the University of Vermont required that we cancel the 16th Annual Grain Growers Conference, since the University closed their campus and most offices to the public the week prior. While this was disappointing, it was a necessary step in safeguarding the health and wellbeing of our community. We thank all the speakers for their time and efforts preparing for the 2020 Grain Growers Conference, and hope they can join us for next year's annual event. Visit the UVM NWCS homepage for factsheets and information related to COVID-19: <https://www.uvm.edu/extension/nwcrops>


Upon hearing the news that the 2020 Grain Growers Conference was canceled, two of the speakers happily offered their planned presentations via online webinar. This meant that on March 24th, we presented a live **Grain Growers Webinar**. First up was Aaron MacLeod with his presentation titled, *Flavor and Function*, discussing results from malt tests with UVM's cereal rye. Second was Erin Silva with her presentation on *Cover Crop Based No-Till and Interseeding Techniques* focusing on no-till and cover crops for weed management. Both these webinars were recorded and are available on the UVM NWCS YouTube Channel at the following URLs:

Aaron MacLeod, Hartwick College: <https://www.youtube.com/watch?v=R5aEFjzFH0c&t=1s>


Erin Silva, University of Wisconsin-Madison: <https://www.youtube.com/watch?v=HLWWG22c61A&t=731s>

Grain Growers Webinar

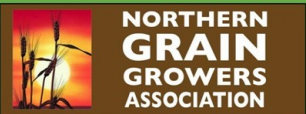
Tuesday, March 24, 2020



THE UNIVERSITY OF VERMONT
EXTENSION




NORTHWEST CROPS & SOILS PROGRAM




NORTHERN
GRAIN
GROWERS
ASSOCIATION

Given the current COVID-19 situation, the University of Vermont has required that we cancel the 16th Annual Grain Growers Conference. We are excited to announce that some of our speakers are happy to offer their planned presentation via an online live webinar!



12:00 PM to 12:45 PM—*Flavor and Function* with Aaron MacLeod of Hartwick College, Center for Craft Food and Beverage

There is a resurgence of interest in rye that is being created by the craft distilling industry that is driving demand and future growth. Learn of the functional end use properties of rye for distilling, including analysis from **Aaron** on grain quality and distilling quality using data from UVM Extension's rye trials.



1:00 PM to 1:45 PM—*Cover-Crop Based No-Till and Interseeding Techniques* with Erin Silva of the University of Wisconsin, Plant Pathology

Intensifying cover crop incorporation into the organic grain rotation can reduce the need for tillage and cultivation for weed management while improving soil health. Join Erin as she shares techniques for successful cover crops and interseeding for corn and soybeans.



What the Pandemic May be Doing to Enlighten People About Flour

By Randy George, Red Hen Baking Company

Of the many strange phenomena that have happened since the Coronavirus lockdown took hold in this country, two that have particularly fascinated me are: 1. The sudden interest in home-baking-- especially sourdough bread, and 2. The disappearance from grocery store shelves of many staples that we can normally count on as sure as the sun coming up every morning. This pandemic has pulled back the veil to reveal things about our food system that farmers and food producers already knew about.

In the context of human history, it is a peculiarity that most of us have grown up with the expectation that everything on our shopping list is perpetually available all the time, whenever we go to the grocery store. In fact, the shelves remain so well stocked in “normal” times, that it is easy to forget that the goods on them are constantly circulating in and out of the store.

Suddenly, in the middle of March of this year, the entire population instantly woke up to the fact that the production and distribution of everyday items like toilet paper, milk, yeast and, of course, flour is a carefully orchestrated dance precisely tuned to our normal, very predictable levels of consumption. When you disrupt the pattern, the system collapses. Within two weeks of the imposition of stay at home orders, we witnessed shortages and complete stock-outs of retail packages of flour as people all over the country stopped eating out and started cooking and baking at home.

That’s when we started getting calls from desperate home bakers. Was it possible that, not only were we dealing with the specter of a deadly global pandemic, but perhaps we were also facing a food shortage? Hold on, not so fast... As it happens, in early March, there was some concern that the closing of the Canadian border could possibly disrupt our ability to bring truckloads of flour into Vermont from our farmer friends the Dewavrins, just west of Montreal. In response, we stocked up with an extra month’s supply (22 tons). Consequently, at our bakery, just as we were hearing from panicked home bakers unable to find flour anywhere, we found ourselves sitting on just under 40 tons of this rare stuff that even Amazon was predicting they wouldn’t be able to ship for another 10 weeks. There was no shortage of flour. There was a shortage of 5 lb bags of flour.

So the new daily routine for our bakers, after baking 1,500 loaves or so loaves of bread and cleaning up from the day, has been to scale out 5 lb. bags to fulfill the daily flour orders that home bakers have been picking up curbside at our closed cafe.

Doing our small part to correct the distribution imbalance of flour has been satisfying, but there has been another unexpected and more profound joy in this. Soon after we started selling the small bags, we started hearing from our new flour customers: “This flour produced the best bread I have ever made!” “I have never baked with flour that has so much *flavor!*” “*I had no idea that flour could be so different!*”



Most professional bakers have long known that there is a lot more to the quality of flour than brand names and classifications like “all purpose.” Of course, in recent years, many of us have taken a deep dive into the subtle and not so subtle differences between different wheat varieties and the various ways of milling and baking with them. But this kind of realization is a new one to most casual home bakers. For nearly everyone alive in this country today, flour has always been so ubiquitous and inexpensive that most people don’t give it much thought. It is considered a backdrop for other “more interesting” ingredients. Prior to this pandemic, we hadn’t found much customer interest when we tried selling the flour we bake with. As with the chorus of birds that has seemed so much more vibrant in these weeks (is it the lack of traffic allowing me to hear them better?), our current circumstances have made us all sit up and take notice of things that we never thought to pay much attention to.

This pandemic is not something any of us would ever wish for and we are only just beginning to understand and imagine the long lasting effects it will have on all aspects of our society. But we can hope that, as with all challenges, some lasting lessons will be learned from this experience. Our local farm stands are booming as people seem to be taking comfort in the safer shopping experience these small stores can offer. In the meantime, I imagine that people are also discovering that, as with the flour, the local vegetables taste better. I have some hope that this appreciation for the security and quality of local food will outlast the pandemic.



Interested in ordering flour? You can do so online at this link: <https://www.toasttab.com/red-hen-baking-co/v3#!/order>

More information can be found about **Red Hen Baking Company** on their website: <https://www.redhenbaking.com/>



Testing Rye Bread Quality with Various Falling Numbers

By Henry Blair, University of Vermont Extension

In February 2020 the UVM Extension NWCS team joined forces with NGGA board members Randy George of [Red Hen Bakery](#) and Jeffrey Hamelman of [King Arthur](#) to test bake 100% rye loaves with various falling numbers. The rye came from a harvest date trial at Borderview Research Farm as part of a larger Northeast SARE funded project investigating the agronomics and quality parameters of cereal rye.

The objective of the harvest date trial was to better understand the effect harvest timing has on grain quality, specifically falling number. The trial report can be found on the NWCS website. Falling number is a value that describes the degree of pre-harvest sprouting in a particular grain. Falling numbers are well-understood in wheat and barley, though less so in rye. More about falling number can be found on the Falling Number Factsheet on the UVM NWCS website

Jeffrey received the Hazlet samples and Randy received Danko. Both bakers had the samples milled at their respective bakeries, randomized and coded so that they did not know which sample was from which harvest date. They also did not know the falling numbers. They baked 100% rye loaves from the same recipe and scored the samples using a 200-point quality analysis system they developed.

The hypothesis going into the bake was that the rye samples with the lower falling numbers would turn out better than the higher falling numbers. This is based on the unique characteristics of rye. Though rye does have gluten it is in low amounts and does not develop well in the dough. Rye is high in pentosan starches which bind to water and inhibit the development of gluten. Rye bread relies on these and other starches for its structure, rather than gluten. If it is fermented for too long, the starches degrade, the loaf winds up with poor volume and a gummy texture.

Low falling number may be preferable in rye because the goal in baking with rye is a rapid fermentation. If the carbohydrates in the kernel are already being broken down, there are more simple sugars available for yeasts and the dough ferments quickly. This means the starches do not degrade in the dough and the bread has a high volume and dry, crumbly texture; ideal for 100% rye breads.



Variety	Harvest Date	Falling Number	Loaf Code
Danko	1	250	C
Danko	2	294	D
Danko	3	236	B
Danko	4	214	A
Hazlet	1	250	
Hazlet	2	270	
Hazlet	3	153	
Hazlet	4	112	

We reached a consensus that B was the best quality bread from this test even though A and D seemed to be better quality doughs. Loaf B had nice crust development; it was well-caramelized and chewy. The crumb had a nice network of air pockets, good flavor, crumbly, moist and chewy. The overall flavor was complex and well-balanced. This hit all the marks of high quality rye bread.

The results were somewhat unanticipated because loaves A and D, though actually being the lowest and highest falling numbers, respectively, had the most consistent and regular fermentation times and dough-feel. B and C were thought to have the lower and higher falling numbers, respectively, but the actual values turned out to be in the mid-range.

It is important to note that the results of this are only from a single test and the findings do not represent concrete recommendations. It would seem as though bakers can be flexible when baking with rye with various falling numbers. There are a range of values that can product good quality rye breads and amendments can be made to increase fermentation speed at the bakery if the falling number is high, such as adding diastatic malt powder or adjusting time and temperature controls. This may also suggest that if the rye is going to be used for baking rather than distilling it may be possible to harvest at later dates without sacrificing quality.

More research, including additional bake tests (!), is needed to more fully understand the effects of harvest date on falling number in rye and the significance of falling number on baking with rye. This was an exciting and interesting glimpse into the unique characteristics of cereal rye and we're looking forward to continuing our research on this crop as interest and demand continues to grow in the Northeast.

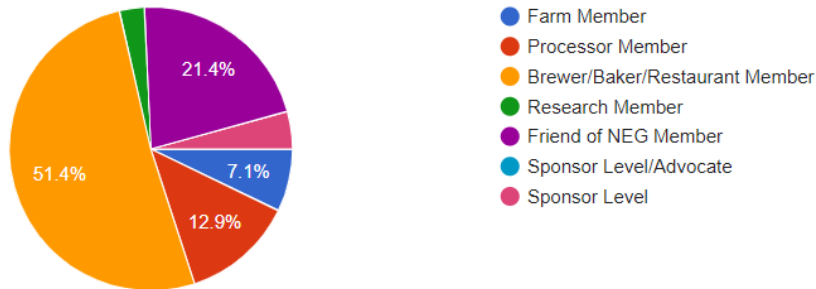


Northeast Grainshed News!

A lot has happened since the [Northeast Grainshed symposium](#) in January, 2020. We feel so fortunate that we could join in person, share ideas, meet new friends, and launch this regional grain revival just before this new world began. Despite the challenges of these times, the energy and momentum generated at the Symposium has continued.

The Northeast Grainshed is beginning to function as a virtual hub, connecting public and private businesses and organizations involved with grains the Northeast. Our partnership consists of a growing number of grain-related businesses, organizations, institutions, researchers, growers, processors, producers, and enthusiastic grain consumers the key components essential to the revival of our Northeast Grainshed. Reconnecting communities to the source of their food, and increasing communication and collaboration among grain supply chain links, will allow this regional partnership to work from a unified foundation, amplifying our impact.

- In the last two months we already have [70 Northeast Grainshed members](#) representing all of our stakeholder groups.



- We have a diverse, experienced, and skilled 36-member [Advisory Board](#) guiding us.
- We are in the process of developing our Mission, Vision, and Values statements to set the stage for who we are, what we believe, and what we do.
- We have joined the Artisan Grain Collaboratives '[Neighbor Loaves](#)' program, a project designed to secure businesses in the grain chain during the COVID-19. Consumers buy loaves that bakers make with at least 50% Northeast grains; this bread is given to food pantries in our communities.
- We have developed and launched a [Grain Directory](#) to help connect bakers to millers, brewers to malt houses, home bakers to local flour, and grain growers to processors. This Directory highlights our Northeast Grainshed members grain-related businesses, and will be growing as we grow.
- We have a [Grainshed Bulletin Board](#) where people can post grain-related items for sale, free or wanted.
- We have professional development opportunities planned for bakers, brewers and distillers to learn the challenges and opportunities presented by using Northeast grains in their products. We are ready to help people get up to speed on local grains, by telling the history of grains in our region, what distinguishes them from commodity grains, who is using them, and introducing the Northeast Grainshed. Stay tuned for upcoming dates!
- We are pursuing funding to develop a coordinated consumer awareness and education campaign about local grains. United under a Northeast Grainshed "brand", we can develop a recognizable Northeast label that can be used on bread bags, beer labels, and other grain products packaging.

Interested in learning more? Want to join us in rebuilding our Northeast Grainshed? Please contact us at northeastgrainshed@gmail.com and check out our website northeastgrainshed.com

