NORTHERN GRAIN GROWERS ASSOCIATION

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

NEWS

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Announcing the Launch of the Heritage and Landrace Grain Network

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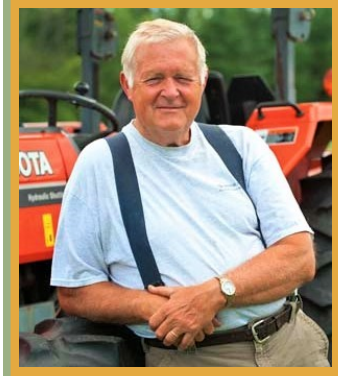
REGISTER TODAY!

15th Annual Grain Growers Conference
" Stories of an Evolving Food System "

Thursday, March 28, 2019
9:00 a.m. to 5:30 p.m
The Essex Resort – Essex, VT



We're thrilled to have **Steve Taylor** as our keynote speaker this year! Steve is a farmer, newspaperman and longtime public official. He served 25 years as New Hampshire's commissioner of agriculture and he is a lifelong scholar of rural issues and culture, on which he writes and speaks frequently. He is a partner with his three sons in a livestock, maple and cheese making enterprise in Meriden Village, N.H.

Get to know what local opportunities are available for grain growers by meeting local buyers in the region. Additional conference sessions include: rice cultivation, round table buyers discussion, cover crops, growing spelt, rye variety testing results, pollinators, and much more! Look for Conference details in January!

Don't forget the hands-on baking sessions! We'll have sessions on baking with rye and making grain salads.

CONFERENCE FEE

Includes lunch

$75 per person and $50 per NGGA member

Please register online by March 22, 2019 at:
www.regonline.com/2019grainconference

Announcing Launch of the Heritage and Landrace Grain Network

By Silvia Davatz

Over the course of the last ten years or so, interest in reviving heritage grains has increased dramatically. There has been a rise in appreciation of their beauty, nutritional value, fascinating history, and potential to be more easily digestible than some more modern varieties. The importance of incorporating them into a sustainable crop rotation and their inherent adaptability are additional compelling qualities. As our climate continues to change in unpredictable ways, identifying

crops that display disease resistance and the ability to thrive under a range of conditions becomes increasingly vital. And, of course, their nuanced flavor and potentially excellent baking qualities simply add to their appeal.

As my own interest in heritage grains grew, I began connecting with other growers and bakers all over the country and internationally. So many individual approaches were represented within this community: researchers, experimenters, bakers, farmers, and home gardeners. Increasingly it seemed desirable to have a network within which all these different interest groups could talk to each other.

A good friend and fellow seed saver and I hatched a plan to create a website to fulfill this mission. We wanted to serve each of the ways in which the community engages with this work, from sharing and increasing seed, to exchanging knowledge, to collaborating on trials.

Our objective was to keep the site as simple and user-friendly as possible. We were exceedingly fortunate in finding a young woman on the brink of launching her own web design business, who was eager to help us pro bono as a means of building her portfolio.

With Sarah's help, Ruth and I got busy. It was a long and instructive process, but we are really excited by the outcome, and by the initial enthusiastic response to the **Heritage and Landrace Grain Network**. You can find it here:

http://grainnetwork.herokuapp.com

The site is easy to use. Even before registering, you have the ability to read the About Us page, which will give you a profile of the site, our mission, and what you can find on its various pages. For instance, the "Add a New Seed" page allows you to list a variety in your collection. You can describe it in detail and indicate whether you have seed to share. On the "Browse Seeds" page you'll find an alphabetical listing of all grains and pseudograins being grown by members, including short descriptions of the varieties. Click on "Network Members" to find member names and contact information. Clicking on any member's username will take you to their Profile Page which gives more detail about their work and a concise list of all their seeds offered through the Network. We would encourage you to list seeds to share, and to write as complete as possible a profile about your own work.

Because there are some limitations to the capabilities of the main site, we have created an associated wiki page, which you can also take a look at before registering on the main site:

http://grainnetwork.pbworks.com/w/page/125302106/FrontPage

Here, members—once invited to do so—can share information and resources beyond what we can easily include on the main network site. For example, you might want to describe a particular project in greater detail.

We hope very much you'll use and enjoy these sites, and that they will help you connect with this wonderfully diverse, impassioned community of visionaries.

Rye Trials

By Jeffrey Hamelman

For several years, two bakers who are also board members of the Northern Grain Growers Association, Randy George and Jeffrey Hamelman, have conducted bake tests on wheat varietals that were planted in various locations in Vermont. The goal has been to identify specific varietals that show promise, both for farmers and for bakers (and which are

ultimately satisfying to consumers). The coming months will bring a couple of changes: first, we'll be joined in the testing by Becca Regier of King Arthur Flour, and second, the tests will be conducted on rye flour for the first time.

As one who has loved rye bread since I began baking professionally in 1976 (I made a rye sourdough culture in August 1980, which continues to be fed seven days a week, and is quite alive and well), the prospect of being able to further our collective understanding of the potential of Vermont-grown rye is very exciting. Rye has shown its value as a cover crop, as a feed crop, and as an ingredient in distilling. When good rye flour is made into good rye bread, it certainly has great nutritional and gustatory value. Perhaps its use as a human food may yield the best profits for farmers. We are hopeful that our tests will bring greater clarity to the question of rye's economic suitability for Vermont farmers and bakers.

In all there will be about 12 different varietals for testing. As with the wheat testing we have done over the years, the bakers will not know the varietal names until after the testing is complete and we have submitted our reports on the baking and eating quality of each varietal. In fact, the only thing we will know about the individual samples is the falling number (this is an indicator of the amount of amylase enzyme in the flour, something we'll need to know in order to make some small adjustments to the bread doughs if necessary). Our hope is to have the testing completed before Spring 2019 and to offer a comprehensive workshop discussion of the varietals—from the planting of the seed to the eating of the bread—at the annual Grain Growers Conference next March. Please stay tuned.

UVM Extension Northwest Crops and Soils Program 2018 Rye Results

By Heather Darby and John Bruce, University of Vermont Extension

The interest in growing cereal rye for grain to be sold as cover crop seed, or to other value-added markets (distillers and bakers), has increased considerably across the Northeast region. As a result, farmers and end-users are requesting yield and quality information on cereal rye varieties. In 2018, University of Vermont Extension Northwest Crops and Soils (NWCS) Program continued an ongoing variety trial to evaluate yield and quality of cereal rye. The varieties were Aroostook, Brasetto, Danko, Guardian, Huron, Musketeer, ND Dylan, Spooner, Wheeler, and Bono.

Heights and lodging were taken prior to harvest and yield, and test weights were recorded after harvest on 21-Jul. Wheeler was the tallest variety, whereas Brasetto was the shortest. Lodging was very low across the entire experiment. Yields are presented at harvest moisture. Yields at harvest ranged between 2511 and 4210 lbs ac^{-1} with Brasetto, Guardian, ND Dylan, and Bono as the top performing varieties. The ideal test weight for rye is 56 lbs bu^{-1}; top performing varieties reaching this mark in descending order were Danko, Musketeer, Bono, Spooner, Guardian, and Aroostook.

Table 1: Pre-harvest measurements of winter rye varieties, Alburgh, VT 2018.

Variety	Height cm	Lodging %	Yield lbs ac^{-1}	Test weight lbs bu^{-1}
Aroostook	141	3.50	2925	56.0*
Brasetto	114	0.50*	**4210**	49.8
Danko	132	0.50*	2837	**57.2**
Guardian	143	0.25*	4061*	56.1*
Huron	143	1.50*	3239	51.0
Musketeer	145	4.00	3320	56.7*
ND Dylan	138	4.00	3627*	54.5*
Spooner	152	1.75	2980	56.3*
Wheeler	**167**	**0.00**	2511	53.3*
Bono	115	0.25*	4015*	56.4*
Trial mean	139	1.625	3373	54.7
LSD (0.10)	10.4	1.64	883.24	4.34

*Treatments with an asterisk are not significantly different than the top performer in **bold**.
LSD – Least significant difference.

Table 2: Grain quality for ten cereal rye varieties, Alburgh, VT, 2018.

Variety	Crude protein @ 12% moisture	Falling number	DON
	%	seconds	ppm
Aroostook	11.7	227	0.200*
Brasetto	10.4	**272**	0.350
Danko	10.8	266*	**0.025**
Guardian	10.2	249*	0.450
Huron	10.7	216	0.125*
Musketeer	11.1	216	0.350
ND Dylan	11.1	254*	0.350
Spooner	10.8	245*	0.225*
Wheeler	**13.9**	260*	0.250*
Bono	9.75	268*	0.300
Trial mean	11.1	247	0.263
LSD (0.10)	0.716	30.8	0.242

*Treatments with an asterisk are not significantly different than the top performer in **bold**.

LSD – Least significant difference.

The cereal rye varieties were analyzed for crude protein concentration, falling number, and the vomitoxin DON (Table 2). Wheeler had the highest crude protein at 13.9%, and was significantly higher than the other varieties in the trial. Falling number ranged between 216 and 272. The variety Brasetto had the highest falling number (272 seconds), but was not statistically significant fom Danko, Guardian, ND Dylan, Spooner, Wheeler, and Bono. All varieties had low DON concentrations.

The cereal grain from these variety trials will be used by local bakers to develop methods and quality parameters for baking with rye.