

Northeast Buckwheat Growers Newsletter

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2012 Buckwheat Field Day

The 2012 Northeast Buckwheat Field Day was held at the Oeschner Farm in Newfield, NY. The farm is on the eastern slope of Connecticut Hill, around which buckwheat production has been common for at least a century and a half.

Our host, Thor Oeschner, farms primarily organic grain. He has leased fields spread out over 20 miles or so. His complex rotation keeps fertility and tilth high, as expected in organic management. He also works to keep weed pressure and erosion low. Buckwheat plays an important role in weed suppression and tilth management in this rotation.

A big hit at this field day was the display of the farm's harvest equipment. First was the self-propelled swather that Oeschner bought used in the Midwest. Having the actual machine let participants understand some of the finer points of making a good windrow. The super-responsive rear-wheel steering apparently makes for some excitement the first few trips across the field. The combine pickup head allows the windrow to lift the dried windrow with minimal disturbance and seed loss. Again, seeing it operate helped give a better idea of to make the appropriate adjustments.

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High yields can happen

Sometimes super-high buckwheat yields happen. They can provide clues about how yield is limited. The likelihood of having all the conditions happen again is, unfortunately, rather remote.

Here is a report of one such lucky situation. William Nuss farms in the Susquehanna valley in Columbia Co., Pennsylvania. His experience with buckwheat is fairly typical. He has had some good years, and also some where the buckwheat was not even been tall enough to combine. But on average it has been a worthwhile crop.

This year, one field came in with the page weight of over 70 bushels per acre. What happened?

First, that kind of yield can only come from large plants. Buckwheat grows large when there is ample nitrogen and water. The winter wheat that had received adequate nitrogen fertilizer was not able to take it up because of the lack of rain in June. The chisel plowed wheat stubble therefore provided rich ground for the buckwheat to grow. Rain began to fall just in time for the ground to work up well, and continued regularly to keep the buckwheat growing quickly.

Second, these large plants had a high seed yield. Typically, plants so large would not set seed well and would partition a lot of their weight into the heavy stems. Exactly why it happened here remains a mystery.

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Buckwheat publicity

Buckwheat was featured on North Country Public Radio on August 30th. In an interview by Martha Foleys program, Natural Selections, Paul Smiths College biology professor Curt Stager talked about buckwheat and its relatives. They covered not only the gluten-free character that makes it

different from grains, but also the oxalate in the leaves that it has in common with rhubarb and its other relatives.

You can listen at <http://www.northcountrypublicradio.org/news/story/7778/20120830/natural-selections-buckwheat-the-un-wheat>



Health Research Notes

Buckwheat honey is known to suppress bacteria. A new study published this summer has shown that it kills the bacterial cells and degrades their DNA. Katrina Brudzynski and colleagues at Brock University in St. Catherines, Ontario showed that buckwheat honey was even effective on the infamous methicillin-resistant *Staphylococcus aureus*. A 12.5% solution of buckwheat honey completely killed this dangerous bacterium. A similar concentration also killed drug-resistant *Enterococcus* as well as *Bacillus subtilis* and *E. coli*. The

work was published in *Frontiers in Microbiology* 3:242.

Dr. Brudzynski tells that her survey of many Canadian honeys shows that an active material called melanoidin is prominent in buckwheat honey, which is why she focused on these.

She is working to put her discoveries into practice with the appropriate therapeutic practices.

Field Day (continued from page 1)

Experience. The field day drew both new and experienced buckwheat growers. This year, we had not one, but two participants who have over 60 consecutive buckwheat harvests under their belt. Calvin Rothermich of Enfield, NY and Paul Bobelak of Warren, PA both have been in this business a long time and had folks taking advantage of their experience.

Reports from 2011. Growers described a generally good harvest last year. While it ranged from three to 50 bushels per acre, many had satisfying numbers in the high 20s and low 30s.

Lodging. On the Oeschner farm, buckwheat is part of a rotation that requires relatively high fertility

compared to many places buckwheat is grown. The plants can easily be on the large end of the ideal range. Lodging becomes a risk with these larger plants. The lodging is unusual in one respect. Normally one thinks of lodging happening when the filling grain makes the plant top heavy and the stem buckles under the load. The lodging we observed at the field day was different. It occurred long before any grain was formed, and the stems did not give. Instead, the sail area of the leaves was big enough that a strong wind torqued the plant's anchorage in the soil.

The Cornell fact sheet on buckwheat harvest can be found online at nmsp.cals.cornell.edu/publications/factsheets/factsheet51.pdf.

Japan opens new buckwheat growing region

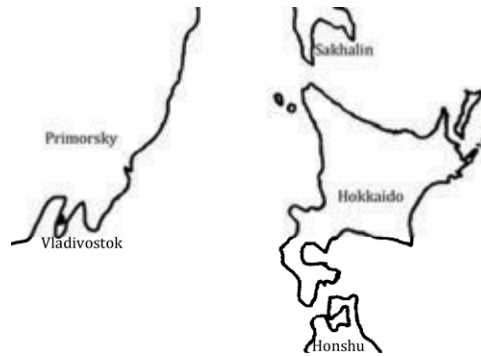
In recent years, Japan has supplemented domestic buckwheat production with imports largely from China. They have begun new production in an area one rarely thinks of for agriculture: Vladivostok. That city was home to the Soviet Navy's Pacific Fleet.

There was significant agricultural production in a fertile valley north of that city until the Soviet Union's collapse, which made logistics unattractive. In recent years Chinese and Korean farming companies have been leasing a lot of land in eastern Siberia.

Now a Japanese company, Ebistrade, has jumped in with about 400 acres of buckwheat, with plans to expand fifty-fold over five years if production is successful. The latitude of the farm is the same as southern Hokkaido, where a lot of Japanese buckwheat is raised.

The increase being discussed is comparable to what Japan currently imports from North America. If the Primorsky buckwheat is of comparable quality, demand for North American could change.

<http://ajw.asahi.com/article/economy/business/AJ201209130006>



Location of the Primorsky farming area, where Japanese buckwheat growers are expanding their production.

Field Day *(continued from page 2)*

The leaning plants soon turned their tips up through gravitropism and continued to grow. Thus they had most of the seeds produced on an upright shoot. Grain production was probably not affected much, but harvesting is more difficult.

Prevention of this sort of lodging is not easy. It happens when there is the combination of large plants early in flowering, moist soft soil, and a strong wind. A small reduction in the seeding rate may be helpful.

Growers would know at planting that a particular field has enough fertility to make large plants. In this situation, reducing the seeding rate somewhat will not result in gaps where weeds can grow. The lower seeding rate allows slightly more branching. These branches help hold the stand together and distribute the force of the wind over more stems.

News coverage. The field day

received excellent publicity in the regional farm press. [Lancaster Farming ran a prominent story](#) on September 15, It was above the fold on the front page, with color pictures. Reporter Helen Griffiths included many take-home messages for those who could not attend. The cover photo featured growers David Jones Jr. of Interlaken and David Mclelland of Andover.



Participants in the 2012 Buckwheat field day at the Oeschner farm in Newfield, NY.

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Big yield (continued from page 1)

Growing conditions must have been ideal during early flowering so that the plant favored high seed set. Pollination was good both because there were many wild bees, and a local beekeeper supplied to hives per acre.

Third, harvest was done efficiently. The crop was direct-combined just as the grain came off easily. The timing was fortuitous. The plants

were already beginning to lean, and wind and rain the day after harvests would surely have flattened the crop. The combine, a Massey Ferguson 550, is not that special. It is the combine a technique that made the harvest the success. Mr. Nuss kept the combine working efficiently by cutting high to reduce the amount of straw, and driving slowly so that it would not feed straw too quickly.

About the Northeast Buckwheat Growers Association

The NBGA is made up of about 150 buckwheat growers in the Northeast.

Membership may be obtained by contacting the editor and providing contact information (address, phone, email). There is currently no charge to join.

This semi-annual newsletter goes out to those who have signed up as members of NBGA. The printed version is sent to

members in the Northeast, and electronic version elsewhere. The complete member list is distributed to members each fall.

The Northeast Buckwheat Growers Association has been on the World Wide Web since 1998. An on-line Buckwheat Production Guide for the Northeast and back issues of this newsletter are available there.



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