September 2013
No. 36

Northeast Buckwheat Growers Newsletter

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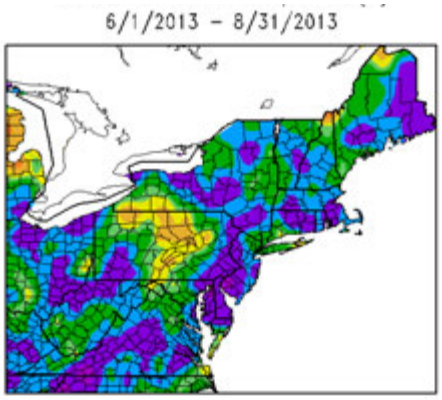
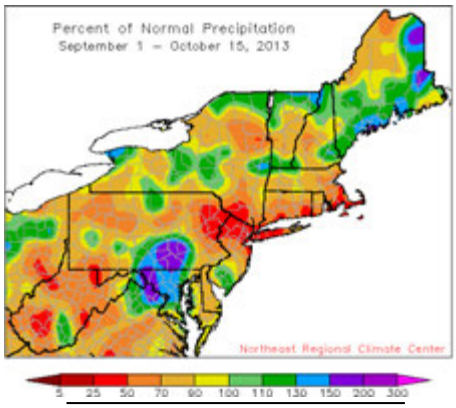
2013 Growing season

In much of the Northeast, planting buckwheat was challenging where uninterrupted rainfall made it impossible to get equipment in the field. The high moisture was particularly challenging in areas north and east of Penn Yan. An exception to this pattern was valleys around the Susquehanna River in Pennsylvania that were too dry.

Those who were able to plant and get a strong stand established, saw mostly good growing conditions through September and early October. Those locations should produce attractive yields. Unfortunately, the Susquehanna River area did not get enough rain during this time either, and northern Maine continued to be excessively wet.



Rainfall from buckwheat planting through flowering.

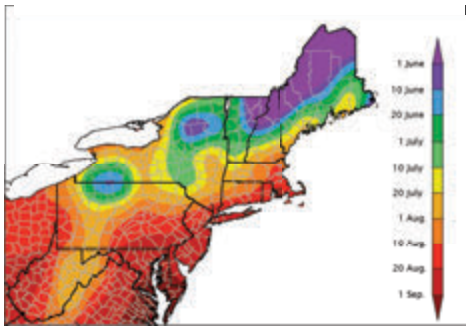


Rainfall during buckwheat grain fill and harvest.
Scale: % of normal

2013 Buckwheat Field Day

The 2013 Northeast Buckwheat Field Day had to be canceled because rain prevented planting at the intended site and caused unacceptable damage at the backup sites. This is the first time the field day has been canceled. In the past, even when rain was forecast for the field day itself, it held off until the program was over. There were a couple of years when the skies opened up just as participants were headed back to their vehicles. I hope that our good luck with the weather will resume next year.

Production notes



The predicted last planting date for cover crop buckwheat varies widely throughout the Northeast.
The cover crop was considered successful if it emerged fast enough to outcompete the weeds, and grew large enough to produce over a ton of biomass per acre. The formula used for the prediction is that 700 Growing Degree Days accumulated before frost.

A new research publication by Bjorkman and Shail on buckwheat cover cropping also has useful implications for buckwheat grain growers.

The work is published in the October issue of HortTechnology. Of particular interest is the ground preparation when following a spring crop of green peas.

When raising buckwheat as a single crop, it has long been known that productivity is best if the ground is first worked three or more weeks before planting. If you are double cropping after peas, three weeks it too long to wait if the buckwheat is to mature.

There are several reasons to think that it might be possible to have a shorter time between pea harvest and buckwheat planting. First, the pea residue should decompose very quickly. Not only is it succulent, but it is also high in nitrogen. The nitrogen allows the decomposing bacteria and fungi to multiply quickly, and the residue is easy for them to digest. (In this respect it is completely different from wheat stubble.) Second, in the middle of summer the soil microbes are already fully active. There should be little lag time or decomposition to begin. And third, while nitrogen tie-up may stunt other crops, buckwheat does not require very much nitrogen to get established.

It turned out that a one-week wait between incorporating the pea residue and planting the buckwheat was sufficient. In fact, in a rainy year it was fine to plant the next day. One advantage of planting quickly is that it doesn't require cultivating to kill weed seedlings that germinate in the meantime.

We also tried planting the buckwheat no till into the pea residue, but that didn't work at all. While the buckwheat seedlings came up quickly, they soon stopped growing because the ground was too hard. As soon as the buckwheat slowed down, the weeds took over.

Björkman, Thomas and Joseph W. Shail. 2013. Using a Buckwheat Cover Crop for Maximum Weed Suppression after Early Vegetables. ***HortTechnology*** *In press for October 2013 issue.*

Gluten-free drives Australian buckwheat production

In recent decades much of Australia's buckwheat production has been sold to Japan. Japanese millers value the ability to get fresher buckwheat when the southern hemisphere producers harvest in March and April. The last decade and a half, the weak economy in Japan has also kept demand for this high-end buckwheat low. The tsunami further reduced demand. Japanese buyers have also been tempted by the lower prices offered by the rapidly expanding Chinese buckwheat industry.

A recent report from the Australian Broadcasting Company reports that demand for gluten-free food has risen in Australia as it has in North America. This Australian buckwheat production is being buoyed by this local demand.

The biggest buckwheat processor in Australia, Buckwheat Enterprises Pty Ltd., used to be primarily an exporter, but now sells more than half of their buckwheat domestically.

Australian buckwheat growers are also anticipating that Chinese buckwheat exports will decline as Chinese consumers require more food and drive up grain prices.

http://ab.co/18jWp0w

2013 Harvest quality

Growers who have delivered buckwheat to the Birkett Mills for the last several decades know Larry Strickland, long time receiving house manager. Larry has retired, so the person you meet at the receiving house will be Tim Pinneo. Tim has long experience both at the Birkett Mills and with buckwheat.

Tim Pinneo thanks growers who have been delivering cleaner grain this year. While he is fully prepared to clean the grain as it came out of the combine, cleaner grain is easier to work with. "I like it when I don't have to give the grain a push to get it to flow," Tim said, "and furthermore it can cut the unloading time from two hours to just an hour." That get you on the road faster, and makes the line shorter during busy times.

If growers need to harvest slightly undermature, or have trouble keeping moist bits of stem out of the bin, the mill has the ability to clean and dry grain. However, these loads need to be delivered quickly or the quality will be lost. Cliff Orr notes that they have had to reject loads for mustiness that were stored on the farm for a few warm days after being harvested at 20% moisture.

To avoid having high-moisture stem pieces in the bin, blow them out by turning the fan up to, and keep the stems from breaking by driving slowly enough that the stems don't bunch up and tangle, and slow the cylinder enough that the stems don't get beat up.

The warm fall, and no sign of frost in many places, have delayed harvest. As of mid-October only a third as much had been delivered as was the case last year. Many of the early deliveries have also been from fields where rain made it challenging to get started. Where the crop established better, one hopes that a bountiful crop has been filling and maturing in the good ripening weather of early October.

In some higher elevation areas, harvest maturity of the grain has traditionally coincided with the first frost. This coincidence has been helpful for harvest by making the grain threshing easier. Not only do the leaves shrivel up and fall off, but the grain comes off the stem easily as well. This year no frost is in sight even three weeks past the long-term average first frost date. We have had late falls several times in the past decade.

This changing fall weather can make the practice of waiting for the first frost a bad idea. The grain can continue to mature to the point that it shatters without having the leaves fall off.

Research note

A first effort to test whether buckwheat in the diet can help diabetics manage their glucose. Research on buckwheat composition has shown the presence of a compound with great promise, fagopyritol, and research on mice had shown a beneficial effect. Dr. Peter Zahradka's team at the University of Winnipeg fed buckwheat to human subjects some of whom had type II diabetes and some who did not. Eating one serving a day for a week did not affect glucose or lipids in the desired way. However, buckwheat made diabetics feel full with fewer calories than eating rice crackers.

Dr. Zahradka notes that the serving size (3 ounces of buckwheat crackers) was something one might reasonably expect people to eat, but that it may not have been big enough to have the desired effect. They are keen on trying a second round, either with larger servings or by processing the buckwheat so that it has more concentrated activity.

Stringer DM, Taylor CG, Appah P, Blewett H, Zahradka P. 2013. Consumption of buckwheat modulates the post-prandial response of selected gastrointestinal satiety hormones in individuals with type 2 diabetes mellitus. Metabolism. 62:1021-31. doi: 10.1016/j.metabol.2013.01.021.

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Buckwheat as a catch crop in 2013

In the spring we reported on significant concern that the rain had left a substantial amount of soybean acreage on planted, and available for buckwheat. In the end, New York farmers planted a record high 320,000 acres of soybeans in 2013, and Pennsylvania acreage was a record 550,000 acres.
In warmer areas, such as southern Pennsylvania or Eastern Ohio, buckwheat can potentially follow wheat harvest as a second crop. Wheat was up by a third to 115,000 acres in New York, up 10% to 160,000 acres in Pennsylvania, and nearly tripled in Ohio to 665,000 acres. While many growers try to frost seeds clover onto their wheat, the greater wheat acreage could provide a small opportunity to plant buckwheat.

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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