



**THE BUCKWHEAT GROWERS  
ASSOCIATION OF MINNESOTA**

NEWSLETTER  
NO. 2

FALL 2002

**OPEN HOUSE  
AT THE FEED MILL**

206 Aldrich Ave SE, Wadena MN

Saturday, September 21<sup>st</sup>

1 pm – 4 pm

***\*\*More Than Just Buckwheat\*\****

**PRODUCTS: \*FEED\* \*SEED\***

*Organic certified with OCIA Intl. for mixing and bagging of feed and  
cleaning and bagging of grain.*

**SERVICES: \*GRAIN STORAGE\* \*CORN DRYING\***

**\*BEAN TRANSFER\* \*GRAIN CLEANING\***

**Informational Displays**

- Alternative Crops and Cover Crops
- Organic Swine Production (*Robert Koehler, PhD—U of M*)
- Organic Poultry Production (*Jacquelin Jacobs, PhD—U of M*)
- Organic Certification, and MORE!

**Introducing Suppliers and Partnerships**

- § Super Gro of Iowa – Vitamin/Mineral Supplements for Livestock - Organic Approved and Fertilizers – Organic & Ecological (*Keith Cuvelier plans to attend the Open House*)
- § Legend Seed – non-treated; non-gmo corn and soybeans
- § Fruit Oil Therapeutics - Organic Soaps, Lotions, and Cremes
- § The Door Doctor – Install and Repair Garage Doors
- § Flour Corn – MDA ESAP Project funded through the Buckwheat Growers Assn of MN

**BOARD OF  
DIRECTORS**

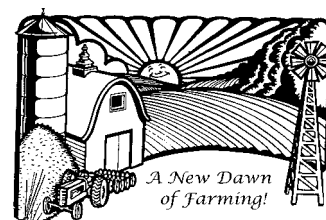
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**Organic Audit Trail—Paper... Paper... Documentation** *For those who are organic growers, the Organic Certification "paper trail" is just part of the transition...*

We learn how to grow grain organically and keep track of lot numbers. Then when selling grain, producers must become familiar with Transaction Certificate Applications (TCA), Bill of Ladings and Clean Truck Affidavits.

*It is all part of the process!!*



When it gets to be too difficult, ask for HELP!!! > >



Call your certification agency with questions. Or call the Buckwheat Growers. We will try to help or refer you to someone!



Two heads are better than one!

**BUCKWHEAT** is believed to have originated in Central and Western China. It is now a relatively minor crop in the United States. Average acreage grown, 1960-64 inclusive, was about 57,000. This contrasts with near one million acres 50 years earlier. Present production is probably under one million bushels, though exact data are lacking.

The buckwheat plant is entirely different from other grains and is not a grass. It is a summer annual with rather coarse, branched stems and large, broadly arrow-shaped leaves. Flower panicles and leaves rise from the nodes, both on the main stem and branches. Growth habit is indeterminate with flowers opening throughout a long season, so the seed crop does not mature at one time. The seed is partially but not entirely enclosed by adhering flower parts during development.

Buckwheat is usually seeded only after the ground is thoroughly warm in early summer. Plants will begin blooming in about 40 days from seeding and first seeds mature about 35 days later. Harvesting is done when a substantial part of the seed is ripe. Fields are then mowed and plants are stacked to dry before they can be threshed.

Seeds are pointed, broad at the base, and triangular to nearly round in cross section. They vary in size in different kinds from about 4 mm at maximum width and 6 mm. long to 2 mm. wide and 4 mm. long. The seed consists of an outer layer or hull, an inner layer, the seed coat proper, and within this a starchy endosperm and the germ. In milling the hull, which comprises 18 to 20 percent of the whole grain weight, is first removed. A second milling removes most of the seed coat or "middlings" which comprise 4 to 18 percent of the whole grain weight - depending on how completely the seed coat tissues are removed. In most buckwheat flour some of the seed coat particles remain, resulting in a light brown color. More complete milling results in a white flour.

The Japanese buckwheat is most widely grown in this country. The seeds are large, brown in color, and triangular in cross section. Plants are tall, rather coarse growers with large, broad arrow-shaped leaves.

Silverhull plants are smaller than Japanese with smaller leaves. The seeds are small, nearly round in cross section, glossy and gray in color. The hulls are thinner than in Japanese. A kind tenned Common Gray is probably identical with Silverhull.

Tartary buckwheat has small seeds, nearly round in cross section. Color varies from gray to black. The hull may be smooth to rough and spiny. Leaves are relatively small, narrow and arrow-shaped. Plants may be almost viny in habit. The flour from Tartary buckwheat is inferior to that from Japanese or Silverhull.

Wing-seeded buckwheat is similar to Japanese except that the hull at the angles of the seed is extended to form a wing. It is not normally planted, but may be present as a mixture in other kinds.

#### Uses of Buckwheat

Most of the buckwheat grown in the United States is milled into flour which is used largely in pancakes. For pancakes the flour is usually blended with that from other grains. Whole buckwheat grain may be used in poultry scratch feed mixtures. The middlings from milling make good livestock feed as they are high in protein. The straw is higher in protein but lower in digestible carbohydrates than grass grain straw. The buckwheat plant is an excellent honey source as the blossoms are rich in nectar, and blooming continues into the fall months. Some beekeepers plant buckwheat primarily for such use.

*Purdue University—Center for New Crops and Plant Products - Last update February 18, 1999 by ch  
(<http://www.hort.purdue.edu/newcrop/crops/Buckwheat.html> 9-10-02)*

**SELF-SUSTAINING RURAL COMMUNITIES****Thursday November 21<sup>st</sup>, 2002****10:30 AM – 2:30 PM** (*Registration at 10 AM*)**Wadena Inn & Grill – Embers America**Hwy 10 W (500 Ash Ave NW) (218) 632-4000  
Wadena MN**For Farm Families and Concerned Citizens Interest In:**

- Quality Food for People;
- Quality Feed for Livestock;
- Protecting the Environment – Land, Water, Air;
- Preserving the Rural Community - Relationships, Values, Schools, Churches, and Local Business;
- Investing in the Future;
- Quality of Life;

**Presentations at this meeting will include:**

Defining the local community- structure, assets, and potential;

Proposal for a Self-Sustaining Rural Community in the Wadena Community;

- Fuel from sugar crops - corn, wheat, rye;
- Fuel from oil seeds - soybeans, flax;
- Bio-diesel considerations;
- Using these fuels locally;
- By products – distillers grain; oil seed meal;
- Extend Growing Season with a Greenhouse or a Hoop House;
- Wind, Solar, Electric Power;
- New technology for construction – geothermal, photo-voltaic;

*Supported by: Ken Gust, Engineer – Blaine MN;  
The Buckwheat Growers Assn of MN; Wadena Chamber and Wadena Economic Development;*

*Contact Tom or DeEtta Bilek 218-445-5475 (home)  
or 218-631-9212 (mill)*

**Painted Mountain "Flour Corn"** The corn most adapted for the cold and mountain regions of the arid west. A very early flour corn that tolerates high winds, cold nights, and drought, while producing beautiful sleek 7 inch long ears in a full range of colors. Short, stout plants matured a full two weeks before all other ornamental corn varieties in our 1994 trials. Plant just before last frost. Bred to be the hardiest corn in the world. Multi-purpose corn can be eaten as sweet corn or hominy, or ground for use as an excellent flour for tortillas and corn bread. Vivid colors indicate high flavonoid content. Painted Mountain is being used today as an ornamental in craft projects utilizing the multi-colored stalks and husks. Northern farmers are using Painted Mountain as an early corn fodder crop. ([www.irish-eyes.com](http://www.irish-eyes.com) 9-10-02)

**BUCKWHEAT—HARVESTING & STORAGE**

From Bill Wilcke, Extension Engineer

Buckwheat has an indeterminate growth habit, which means it keeps flowering until frost and not all seeds mature at one time. Harvest when 75 to 95% of seeds have matured (turned brown or black) and when plants have lost most of their leaves. Delaying harvest until all seeds are mature will result in high shattering losses, especially after a killing frost.

Suggested moisture for buckwheat is 13—16%. At moistures greater than 16%, seeds are likely to mold and heat. At less than 13%, buckwheat is hard to mill, and consequently, some buyers discount the price.

It is a good idea to provide some kind of aeration system (fan and perforated ducts or full perforated floor) to control the temperature of any stored grain.

**BUCKWHEAT HONEY**

Scientists at the University of Illinois have found that dark-colored honey, specifically dark honey produced with nectar from buckwheat flowers contains 20 times the amount of antioxidants found in paler honey varieties. "Antioxidants are the body's first defense against free radicals that produce inflammation and tissue damage. Although increasing antioxidants won't reverse damage already done by free radicals, it can prevent further cell deterioration. Buckwheat honey packs the antioxidant power of the vitamin C in a tomato". (*Barbara Gollman, registered dietician for the American Dietetic Association*).

**FLAX**

Golden flax provides a high level of omega-3 oils, lignans and fiber that are believed to have a broad range of health benefits.

Eggs from chickens being fed flax as part of their ration have shown to be significantly lower in saturated fat by 22—30% compared with normal USDA analytical values. Polyunsaturated fatty acids are 60—70% higher than typical values largely due to increased levels of alpha linolenic acid, which is an omega-3 fatty acid.

*From research conducted at AURI—Marshall - January 2002 for Dennis Jeske.*

BGAM include some flax in chicken feed formulas for broilers and layers.

**FLOUR CORN—Alternative and Value Added Crop**  
*Gluten intolerant people use as substitute for wheat.***Fall Workshop – 2002****Saturday, October 26<sup>th</sup>****Browerville Community Center***Contact Lynda Converse (320) 594-2456*



**Buckwheat Growers Association of Minnesota**  
 206 Aldrich Ave SE, Wadena MN 56482  
 Ph: 218-631-9212 or 218-445-5475  
 E-mail: [info@buckwheatgrowers.com](mailto:info@buckwheatgrowers.com)

**We are on the Web!**  
[www.buckwheatgrowers.com](http://www.buckwheatgrowers.com)

**The BUCKWHEAT GROWERS FEED MILL IN WADENA IS OPEN**

Monday, Wednesday & Friday: 9AM- 5 PM  
 Saturday: 9:00 - noon  
*Stop by and visit the mill — Offer a helping hand!*



Tom broke his ribs in April, but that didn't stop him from talking to customers. He is nearly back to normal now.



**Introducing - The Door Doctor**

BGAM and the Door Doctor have contracted to share services. BGAM is providing warehouse and office space and the Door Doctor is providing a staff person three days a week to answer the phone and fill orders.

**FRUIT OIL**  
 therapeutics

**Introducing...**

**Fruit Oil Therapeutics**

Organic Soaps, Lotions, and Cremes  
*Available Now at the Mill.*

**FALL PLANTING** — The Buckwheat Growers Assn has seed for available for Winter Wheat, Winter Rye and Hairy Vetch. Plant preferably in late August or in September. However, some have reported good results even if planted in October.

**FEED for LIVESTOCK**— The Buckwheat Growers Assn has feed available for chicken broilers and layers; swine; dairy; goats —bulk or bagged — organic certified and transitional.

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