# **Organic Matters**

## Farm Tours Highlight Innovation, Diversity

On June 12, 2007 over 100 people met east of Big Sandy at farms operated by Bob Quinn and Thad Willis and their families for an enjoyable and educational tour sponsored by the Montana Organic Association (MOA), Alternative Energy Resources Organization (AERO), Montana Farmers Union (MFU), and National Center for Appropriate Technology. Before the tour, AERO held a combined meeting of its Agricultural and Energy Task Forces where discussion centered around the newly released "Repowering Montana, A Blueprint for Home Grown Energy Self Reliance" and the direction for AERO's energy program.

#### **Ouinn Farm and Ranch**

Bob and Anne Quinn and their family operate an organic farm growing high value crops. Bob says that about three years ago he decided to simplify life, so he leased out his dryland farm and sold his flour mill, keeping back 340 acres surrounding their home. He set a goal to see if alternative high value crops could be grown on non-irrigated ground to diversify crops and income sources and whether high value crops might help reverse the trend in loss of family farms and support local food systems.

Now he grows high value crops like Dave Christianson's Indian corn, spaghetti squash, sweet corn, potatoes, and onions that are marketed locally, and he is starting an apple orchard. These are grown on ground kept fertile with green manure crops, usually winter peas.

Tour stops featured several experiments on Quinn Farm and Ranch including vegetables planted in a saline seep area. There, Bob planted a variety of garden vegetables including potatoes, tomatoes, peppers, sweet corn, onions, and others; and different varieties of each type. Eight monitoring wells were placed in the seep area to monitor ground water level. On the day of the tour, ground water was about 5 feet below the ground surface. The goal of the experiment is to learn which of the high value crops can tolerate the saline conditions and access the shallow ground water, and whether varietal differences exist.

Other experiments included planting alfalfa to compete with and control Canada thistles, underseeding canola with clover, and comparing ancient and modern wheat varieties for their affect on human allergies.

Bob hosted discussions about his recently acquired oil seed cold press, as well as his diesel biofuel generator. He is interested in pressing oil seeds with health benefits such as the high oleic seeds of canola, flax, and sunflowers and high anthocyanin Indian corn. He says, "Food should be our medicine and medicine should be our food."

#### **Millennium Farm**

Thad Willis operates Millennium Farm, a certified organic, dryland farm growing Kamut, durum, red, spring and winter wheat, and lentils. Thad follows a well-developed, four-year rotation consisting of green manure, winter wheat, fallow, and in the fourth year, Kamut, durum, spring wheat or lentils, depending on soil test results.

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Montana Organic Association is a 501(c)6 non-profit organization dedicated to advocating and promoting organic agriculture for the highest good of the people, the environment and the state economy.

Organic Matters is published quarterly by the Montana Organic Association. Send queries, suggestions, letters, and requests to:

Organic Matters MOA PO Box 1675 Polson MT 59860 info@montanaorganic association.org

Organic Matters occasionally includes guest articles and opinions. While we review these for relevance to our mission, the opinions in these articles may not reflect the opinions or policy of the Montana Organic Association.

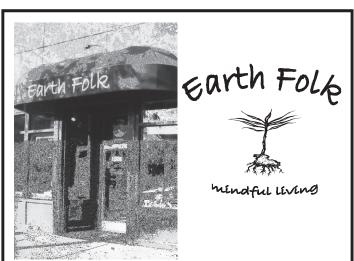
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He tests soil the fallow year, and nitrogen results and water conditions influence his decision on the type of fourth year crop. Thad gives attention to soil health, and states that "Soil building is not a short-term project; it is more of a journey, than a destination." Through his own journey he realized there is no recipe, and he is always analyzing his fields so he can make decisions. He says the rotation not only builds soil; it disrupts disease carryover.

The green manure year of Thad's rotation is peas, clover, or alfalfa. Alfalfa is less common as a green manure because of the amount of water it requires and difficulty in terminating it. Tour participants viewed a clean field of spring wheat seeded in peas plowed in the year before along with fields of Arvica peas and Kamut. Peas for green manure are seeded at 80-90 pounds per acre unless conditions are dry or seeding is late, then the rate is 50-60 pounds per acre. He plants peas in the fall or spring and plows them just prior to seed set. One field of peas planted in October 2006 was blooming during the tour.

#### **MSU Green Manure Plots**

When Bob Quinn posed a question, "Can you recommend a green manure that gives as much nitrogen as alfalfa but doesn't use as much water?" MSU Professors Perry Miller, Agronomist; Clain Jones, Nutrient Man-



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agement Specialist; and Dave Buschena, Ag Economist, stepped up. They established plots on Quinn Farm and Ranch to study water and nitrogen balance for green manure crops (winter peas, spring peas, mustard, and buckwheat) and to study survival of winter peas planted in the spring versus the fall. Participants in the tour viewed the plots, and some responses in crop vitality and weed pressure seemed evident and related to green manure practices, wheat varieties, seeding rate, and row spacing. Initial recommendations from their studies are that winter pea, where it will survive reliably, is a superior green manure because of greater soil nitrogen contribution, soil water conservation, and weed competitiveness; however, winter pea may not provide sufficient soil nitrogen to protect grain protein. Their research is continuing and they recommend further research to compare annual and perennial legumes for soil nitrogen contributions.

After the tour, participants enjoyed pit-barbequed Polynesian style pork prepared by Bob Herdegen and full trimmings catered by Chandee Baumgartner.

#### **Lund Farm Tour Features Diverse Crops**

On June 29, 2007 about 45 people gathered at the fairgrounds in Scobey for a tour of Lund Farm hosted by operators, Mikel and Nancy Lund. Tour sponsors included MOA, AERO, Organic Crop Improvement Association Northeast Montana Chapter, and CERES.

Mikel and Nancy operate a farm southwest of Scobey on land homesteaded by Mikel's grandfather in 1913. They also own and operate Homespun Health in Scobey, a retail business featuring organic and natural food and health items. Their farm was certified organic in 1991. Crops in 2007 were flax, peas, yellow blossom sweet clover for hay and plowdown, chickling vetch for plowdown, Kamut, alfalfa hay, and cattle. The Lunds rotate these and other crops, and they consider weather, soil moisture, and seeding conditions in making decisions on rotations.

Participants were bussed to Lund Farm and stopped at a field of Neche brown flax on the way. The flax, seeded at 41 pounds per acre, was in a field cropped with winter rye for plowdown in 2006. The winter rye was terminated with a noble blade and worked four times to rid it of rye and incorporate residue. Still, some volunteers were present which influenced Mikel's decision to plant flax instead of the previously planned spring wheat.

To improve soil quality, Mikel spreads cattle manure on fields and he recently started a manure composting operation to improve soil quality. Manure is mixed with a carbon source and windrowed on winterfeeding areas for composting. He pointed out areas where manure had been spread on thin soil areas on

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high ground with noticeable improvement in soil and crop quality.

Bindweed is a problem for Lund Farm. Bindweed thrives on low calcium soils, so Mikel experimented in 2007 by applying gypsum from mined sources, 500 pounds per acre, to increase calcium. Mikel thinks bindweed is one of their most difficult weeds, and he suggested that more research on biological control is needed.

Bruce Smith, Dawson County Agent, gave a talk about the Eastern Montana Farm-To-Table Project. A goal of this amazing project is to create a local food system. A producer-owned cooperative will allow food to be produced, processed, and marketed locally, and producers will be their own middlemen and own the food through the whole food chain. Bruce explained that the papers for incorporating are being prepared. The project will feature a marketing center, shared-use commercial kitchen, restaurant, brewery, and cooking school. Bruce says, "Within three years, 95% of the food served in the restaurant will be locally-grown."

Participants enjoyed a lunch, catered by DC Lanes in Scobey, that featured organic beef from Lund Farm, organic cherries from Fat Robin Farm in Polson, and all the trimmings.



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Editors Note: In our last issue we promised you a report on Roundup Ready Alfalfa. We are unable to include it in this issue, but invite you to read it in its entirety on our website at www.montanaorganicassociation.org. Our thanks to Kiki Hubbard for preparing the article, and for her other diligent work in support of meaningful organic agriculture.

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## **NOP Standards Tightened for Processed Products**

A revision to the National Organic Program (NOP) rule, which became effective on June 9, 2007, tightened the requirements for processed products to be labeled as "organic." The revised rule states that only substances included on the National List, in section 205.606 of the NOP regulation, may be used as ingredients in products labeled as "organic" and requires a nonorganic agricultural product to be listed in the regulation and commercially unavailable in organic form in order to be used in an organic product. Prior to the revision, nonorganic agricultural products could be used in or-

ganic foods when not commercially available regard-

less of whether they were listed in the regulation and if

the certification agent verified the claim. Such non-or-

ganic ingredients could not make up more than 5% of

the weight or volume of an organic product.

By Doug Crabtree, MDA Organic Program

The rule revision was actually implemented in 2006, but included an effective date of June 9, 2007. This provision was included to allow a one-year grace period for food manufacturers to use up purchased ingredients, change labels, source new organic ingredients or otherwise come into compliance with the revised rule. Food manufacturers that had been using non-organic agricultural ingredients must submit a revised Organic System Plan to their certifier. The new plan must specify either:

- 1. That the product has been reformulated to include only organic ingredients or ingredients listed as "allowed" in 7 CFR 205.606; or
- 2. That the product has been relabeled to "Made with organic ingredients," a labeling category that requires only 70% of the product to be organic.

Any organic food producer or handler whose products include non-organic ingredients should contact their certifier immediately to verify that their Organic System Plan and their products are in compliance with the revised rule. Anyone with questions regarding this change to the NOP rule should contact Doug Crabtree at the Montana Department of Agriculture. Doug may be reached at (406) 444-9421 or dcrabtree@mt.gov.

In a related development, the USDA, on June 27, 2007, published an "interim final rule," which expanded the list of non-organic agricultural substances that can be used as ingredients in organic products when organic versions are not available. The interim rule added 38 items to the National List, section 205.606. Interested persons may submit comments on this interim rule. Comments will be accepted for 60 days, ending on August 27, 2007, and may be submitted to:

Robert Pooler, Agricultural Marketing Specialist, NOP, USDA/AMS/TMP/NOP, 1400 Independence

Ave., SW, Room 4008-So., Ag Stop 0268, Washington, DC 20250.; or www.regulations.gov

The 38 substances added are:

- 1. Annatto extract color
- Beet juice extract color
- 3. Beta-Carotene extract color from carrots
- 4. Black currant juice color
- 5. Black/Purple carrot juice color
- 6. Blueberry juice color
- 7. Carrot juice color
- 8. Cherry juice color
- 9. Chokeberry—Aronia juice color
- 10. Elderberry juice color
- 11. Grape juice color
- 12. Grape skin extract color
- 13. Paprika color—dried powder and vegetable oil extract
- 14. Pumpkin juice color
- 15. Purple potato juice color
- 16. Red cabbage extract color
- 17. Red radish extract color
- 18. Saffron extract color
- 19. Turmeric extract color
- 20. Casings, from processed intestines
- 21. Celery powder
- 22. Chia (Salvia hispanica L.)
- 23. Dillweed oil
- 24. Fish oil
- 25. Fructooligosaccharides
- 26. Galangal, frozen
- 27. Gelatin
- 28. Hops
- 29. Inulin, oligofructose enriched
- 30. Konjac flour
- 31. Lemongrass, frozen
- 32. Orange shellac, unbleached
- 33. Pepper, chipotle chile
- Rice starch, unmodified for use in organic handling until June 27, 2009
- 35. Sweet potato starch, for bean thread production only
- 36. Turkish bay leaves
- 37. Wakame seaweed (Undaria pinnatifida)
- 38. Whey protein concentrate

The entire interim rule may be viewed at: http://www.ams.usda.gov/nop/Newsroom/FedRegNoticeNLProcessing062707.pdf

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## **Accreditation Will Assist MT Organic Sales to Europe**

The Montana Department of Agriculture has received approval to certify organic products under guidelines accepted worldwide and required for exports to customers in Europe.

Montana becomes the second state, after Washington, to receive USDA accreditation under International Standards Organization Guide 65. The department received written notice of the approval on Feb. 2, 2007.

"Montana is a nationwide leader in production of organic grains. The ability to certify organic producers and handlers under ISO Guide 65 as well as the USDA's National Organic Standards enhances the department's organic program and will assist organic producers in exporting more products," said Director Nancy K. Peterson.

U.S. Senator Jon Tester, an organic farmer from Big Sandy, offered his congratulations to the department. "I am pleased that my family and other organic producers in Montana will have access to important markets in Europe under this expanded accreditation," Tester said.

Montana Flour & Grains of Fort Benton currently exports food products to Europe. Owner and manager Andre Giles said until now the company has received ISO Guide 65 certification from a private entity.

The Montana program received accreditation in 2002 to certify organic producers under the USDA National Organic Standards. It was apparent from the start that some overseas customers preferred assurance that certified producers meet the previously established ISO Guide 65 standards, said Doug Crabtree, organic program manager. Accreditation to meet the international standards was a multiyear process including a program audit performed in December.

The department currently certifies 123 organic producers and handlers. Montana leads the nation in organic grain production with 1.2 million bushels of organic wheat grown on nearly 60,000 certified organic acres in 2005, the last year for which numbers are available. For more information on the program, contact Crabtree at (406) 444-3730 or at dcrabtree@mt.gov or visit their website at www.agr.state.mt.us/organic/Program.asp.

Are organics better? In a new study recently published in the Journal of Agricultural and Food Chemistry researchers found that organic tomatoes contained higher levels of beneficial flavinoids (quercetin and kaempferol aglycones) than their conventionally grown counterparts.



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As summer progresses, zucchinis seem to take over most folks' gardens. What to do with all of those gorgeous organic green and yellow squashes? Try this flexible and simple bake that takes advantage of the wonderful organic ingredients available to us in Montana...it even freezes well for summer's goodness year round.

#### **Baked Zucchini**

(Adapted from The Classic Vegetable Cookbook, Ruth Spear, Harper & Row, 1985)

5-6 medium zucchini (about 2 pounds) Salt

4 eggs (or egg substitute) lightly beaten

1/2 cup crumbled feta cheese (about 1/4 pound)

1 cup grated Gruyere or Swiss cheese

2 tbs. finely chopped parsley

2 tbs. finely chopped mint leaves

6 scallions, the white and 2" of green, chopped

1/2 cup flour

Ground pepper

Nutmeg

6 tbs. butter

Grate the zucchini coarsely. Add 1/4 tsp salt for each cup of zucchini, mix in and let sit in a colander for 35 minutes. Press out and discard excess liquid. You should end up with about 4 cups grated zucchini.

Preheat over to 350 degrees. Butter a 1 1/2 qt. casserole. Add eggs, cheeses, parsley, mint, scallions and flour to the zucchini. Season to taste with salt, pepper, and a grating or sprinkling of nutmeg. Put the mixture into the casserole dish. Dot the surface with butter and bake for 45 minutes, or until surface is golden and puffed. Serves 6-8.

Variations: Substitute cilantro for the mint, and Pepper Jack for the Gruyere/Swiss cheese and 3 small leeks for the scallions. Add one small or medium hot pepper (to your liking), or a small can of chopped peppers and 1/2 cup fresh or frozen corn.

If you have a recipe that uses Montana-grown organic ingredients that you'd like to share with MOA members, please send it to lars@montanaorganicassociation.org

A good hint from Real Simple magazine...

What to do with that free toothbrush from the dentist? Why use it to remove the silk from fresh ears of corn, of course. Before cooking, use the bristles of an unused brush to dig out stray silk threads stuck between kernels so they don't get caught in your teeth during dinner.

# Here's Looking at You

In this and coming issues, we will be profiling MOA members, to give all of us a better understanding of just who makes up the MOA. We kick off this new series with a profile of one of our board members, Sandi Shanks. Here's what she had to say about herself...

Name: Sandi Shanks
Spouse: Bill Shanks

Kids: One son, Whitney

Where she lives: Whitefish, Montana

How long: Since 1961

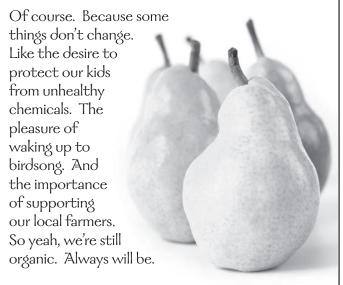
Time in Organic Agriculture: Since 1977

Occupation: Managing the Organic Produce, Meat, and Dairy for the Third Street Market

Sandi's Perfect Day: Walking along the shore of the Pacific Ocean on a misty spring day watching whales.

Words of Wisdom: Wake up with a smile, and go to sleep with a smile







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#### **USDA Seeks Nominations for NOSB**

The USDA is seeking nominations to fill the position of Environmentalist on the National Organic Standards Board (NOSB). The Secretary will appoint a person to serve a 5-year term of office that will commence upon appointment and run until January 23, 2013.

The NOSB is a 15-member board responsible for developing and recommending to the Secretary changes in the National List of Allowed and Prohibited substances. The NOSB also advises the Secretary on all other aspects of the National Organic Program.

Any individual appointed to the NOSB environmentalist position must demonstrate expertise in areas of environmental protection and resource conservation as they relate to organic agricultural production.

Written nominations, accompanied by cover letters and resumes, must be postmarked by August 17, 2007 and sent to Katherine E. Benham, National Organic Program, USDA–AMS–TM–NOP, 1400 Independence Avenue, SW., Room 4008–S, Ag Stop 0268, Washington, D.C. 20250. Contact Ms. Katherine Benham at (202) 205–7806; e-mail: Katherine.benham@usda.gov.

Editors note: This is a golden opportunity for the MT organic community to nominate one of their own to this important board. If you have any suggestions or recommendations, please call 406.871.0019 or email as at info@montanaorganicassociation.org

### **'07 Conference Planning Continues**

The conference committee continues their hard work on our Great Falls conference scheduled for November 30 through December 2, 2007.

We are excited to announce that Dr. Hubert Karreman will join us as a presenter. His experience in agriculture currently spans 20 years and encompasses soil science, soil conservation, cropping, and management intensive grazing while being a herdsman for six years in Pennsylvania, New Hampshire and The Netherlands. His interest in complementary and alternative treatments stems from his tenure as herdsman on a Biodynamic farm. During a six-month stretch of using only natural treatments on the milking herd, he realized that going to school to learn conventional veterinary medicine would better prepare him to work with all kinds of therapies in dairy cows. Dr. Karreman is a nationally recognized expert in organic dairy health care who works with 85 certified organic and transitioning herds. He is a member of the NOSB, Chair of the NOSB Livestock Committee, and the author of *Treating Dairy Cows Naturally.* He is pleased to be able to join us and address subjects such as Animal Husbandry in Organic Systems; Plant Medicines and Biologicals; and NOP and Organic Livestock.

Our next issue which will focus on all of the conference details. Until then, keep up on our progress on the website at www.montanaorganicassociation.org.

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## A View from the Chair