

Missouri Sustainable Agriculture - 2003 Demonstration Award Program

A program of the Missouri Department of Agriculture

This program provides grants to Missouri farmers to help them test, evaluate and adopt sustainable agriculture practices on their farms. Projects must be designed to reduce dependency on non-renewable resources such as minerals and petroleum, and protect and conserve natural resources such as soil, air and water. For the 2003 program year, 23 grants of up to \$3,000 each will be awarded. The deadline is **November 30, 2002**.

For details contact the Department of Agriculture at (573) 522-8616 or (573) 751-5505 or view application instruction at:
<<http://agebb.missouri.edu/sustain/sagdemo/modemoap.htm>>

*This newsletter is printed on 100% kenaf paper,
an alternative fiber crop.*

Calendar of Events

June 6, 2002

Winter Canola Field Discussion,
Lamar, MO

July 23-26, 2002

Crop Injury Clinic - Bradford Farms,
Columbia, MO

August 8-18, 2002

Missouri State Fair,
Sedalia, MO

August 30, 2002

Delta Research Field Day,
Portageville, MO

The Thomas Jefferson Agricultural Institute is a 501(c)3 non-profit education and research center based in Columbia, MO. For more information, contact us at (573) 449-3518 or by email at: info@jeffersoninstitute.org.



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JEFFERSON INSTITUTE NEWS & VIEWS

www.jeffersoninstitute.org

Volume I, Issue I - Spring 2002

Director's Column

By Rob Myers, Executive Director

Welcome to the first issue of our Jefferson Institute newsletter! As many of you know, we have worked for the last few years to provide information in a variety of formats, including thorough technical bulletins, marketing guides and fact sheets. These materials are available in both print form and at our website (www.jeffersoninstitute.org). However, we felt there was a need to share more timely information about our programs and some of the crops we work with, and have launched this newsletter to serve that purpose.

At the Jefferson Institute, we have been working to improve the long-term viability of family farms, with a significant focus on crop diversification. We have also been supporting communication and education activities that can reach the broader public regarding crops, their uses and contemporary agricultural issues. Working with a variety of private and public sector partners, we are applying a systematic approach to improving the situation for today's farmers, particularly in regards to opportunities for alternative crops. Past and current research activities with a variety of promising crops is providing an information base we are using in educational programs. We are also seeking to expand the economic opportunities for farmers by working on market development and value-added processing of selected alternative crops.

From a personal perspective, I feel there is great potential to strengthen U.S. agriculture by developing a broader base of crops with economic uses. Consumers are requesting more products made from renewable resources, and many crops can serve as the starting points for such products, in some cases replacing petroleum-derived products. Many consumers are also looking for a healthier diet, and several of the alternative food crops we are working with have been shown to have characteristics beneficial to human health. Research and practical experience have shown us that diversified rotations can improve overall crop performance, and the health of the soil.

While there is much opportunity with alternative crops, there are also a number of roadblocks and challenges to overcome in making these crops more viable. Lack of local markets is a problem common to many alternative crops. The Jefferson Institute is trying to address this by arranging local delivery points for out-of-state buyers, or working on methods of local processing, including farmer-owned cooperatives. Of course, policy and regulatory barriers can be an obstacle to adoption of alternative crops, and we have begun the process of addressing some of these issues.

Our intent is to publish this newsletter on a quarterly basis. We hope you will find it useful. If you have suggestions or feedback, please let one of us know. Thanks for your interest in our programs and activities!

Farmer's Corner: Linus Rothermich, Auxvasse, MO

By Cortney Miller, Communications Specialist

Central Missouri farmer, Linus Rothermich, is definitely no stranger to alternative crops. In 1993, a seed cleaning company contacted Rothermich about growing Japanese millet. "At the time I didn't have much to lose and I was looking for a double-crop option, so I planted the millet," explains Rothermich. "The Japanese millet has been a profitable addition to my rotation and has helped spread field labor."

Since 1993, Rothermich has grown grain amaranth, pearl millet, black beans and will be growing sunflowers and black-eyed peas in his crop rotation this year. Rothermich also grows corn, soybeans and grain sorghum.

"I enjoy seeing something different in my fields, plus I like the challenge alternative crops offer," says Rothermich. According to Rothermich, finding markets is the biggest hurdle he faces. "Many times growing the crop is easy, but finding the market is the hard part." He has found oilseed sunflower to be the simplest crop to market. Rothermich cleans and bags his sunflowers and direct markets them into a growing birdseed market.

Rothermich offers the following advice, "Once you find a market, make sure you sign a contract. It's protection for you and the buyer, and be conservative with the acreage you plant."



Oilseed Sunflowers Gain Acceptance from Missouri Producers

By Alan Weber, Economic & Marketing Specialist

The growing size of the sunflower market, both for oilseed and birdseed uses, is creating new opportunity to add sunflowers to crop rotations in Missouri. As evidence to this fact, **Missouri sunflower acreage is estimated to have doubled in the past two years.** In Missouri, sunflowers provide a nice double crop after wheat, especially for farmers in the northern part of the state. By adding sunflower as an additional crop to the rotation, pest problems such as corn borer or soybean cyst nematode can be reduced. Sunflower is also shorter season than most crops, so can be planted later, or harvested earlier, helping to spread out workload.

Nationally, acreage in states such as Texas, Kansas and Missouri increased last year. However, acreage in traditional sunflower producing states such as North Dakota decreased. Although acreage in Missouri has significantly increased, overall acreage remains low at an estimated



5,000 acres. **The predominant market for Missouri producers remains the birdseed market** due to transportation distances to the oilseed crushing market and the relative advantage that Missouri growers have in the birdseed

market. Although Missouri sunflowers will almost exclusively be sold as birdseed, the interest and demand in NuSun sunflowers continues to grow nationally.

The development of “NuSun” varieties that are mid-level in oleic acid has spurred further interest in using sunflower oil in food preparation. In addition to a ‘healthy profile’, NuSun oil has the primary advantage of being more stable than most vegetable oils, and not needing to be hydrogenated to improve shelf life.

In addition to NuSun varieties, high-oleic sunflowers can also be grown. These varieties are utilized primarily for industrial applications however high oleic varieties are receiving more attention due the increased demand for mid-oleic vegetable oils and the need to blend the various oleic content vegetable oils.

Since Missouri growers will be producing for the birdseed market, NuSun varieties will not command a premium price in the market as they do in other regions of the US. NuSun varieties can be used for birdseed. however. As documented by variety trials conducted by the Jefferson Institute and the University of Missouri in 2000 and 2001, NuSun varieties yield as well or better than tra-

ditional varieties and as one producer put it, “the birds don’t care which type they eat”.

Missouri producers will have SPARTAN HERBICIDE as an option again this year as a Section 18 (temporary registration) was issued to control water hemp and morning glory.

Contact the Jefferson Institute at (573) 449-3518 for up-to-date market news.

Edamame Soybean Opportunities

By Rob Myers

A specialty type of soybean has been gaining popularity in U.S. salad bars and frozen vegetables. Edamame soybeans, a common food item in Japan, are becoming more familiar to U.S. consumers looking for the healthy benefits of soy in a pleasant tasting, green vegetable form. Edamame soybeans are harvested green, either by hand, or with a commercial green bean picker. They are then refrigerated and sold fresh in the pod, or shelled and sold frozen. The Jefferson Institute is researching edamame soybeans and is willing to assist growers interested in growing either a commercial acreage for mechanical harvest, or small acreage for farmers’ markets.

Visit us at our website:
www.jeffersoninstitute.org

Black Bean Prices Ricochet

By James Quinn, Crop Specialist

Less than a year ago, the average grower price for black beans was at a 10 year low of \$11 cwt*. At the end of February 2002 it stood at a 10 year high of \$36 cwt. The previous 10 year lows occurred in the spring of 1992 and 1996 when it hit \$14 cwt., while the previous highs occurred in 1994, 1995 and 1998 when prices reached \$28-30 cwt. If you compare black bean prices to colored beans it seems they are the most volatile.

Why the volatility? Black bean acreage has grown through the years and now surpasses many of the other dry beans, so production volume is not a sole factor. U.S. consumption of black beans has also steadily risen, so a declining market cannot be blamed. The largest

reason seems to be the need for the U.S. to export black beans to avoid an oversupply. This unfortunately ties into politics with Mexico, the largest market for U.S. dry beans, and competing with other exporting countries-Argentina, Brazil and China. A strong U.S. dollar has made exporting challenging, but this year the Argentina financial crisis came to bear right when the Mexico exports finally opened. At the same time, there was significantly reduced acreage in Brazil, Argentina, and the US, and reduced harvests in Michigan, a key black bean producing state. Black beans were the only dry bean affected by all these production or supply restrictions.

When looking at the components of demand, black beans are increasing as a food ingredient. As the consumer has become familiar with black beans, they are becoming valued, in part, for the contrast their color provides.

The current high black bean prices may seem like a great opportunity for farmers, but it’s not so simple. First, planting seed is reportedly in short supply. Second, Brazil is moving acreage from corn to black beans (but not from soybeans!). And finally, forward contracting for dry beans is not common, and is just available in the large production regions. The expectation in the market is for acreage to dramatically jump this year, the strong U.S. dollar to be a drag on exports, and prices to drop back to a more typical average price of \$20 cwt. Thus, taking advantage of the current high price with this year’s crop appears uncertain.

The long-term outlook for black beans is promising. The two largest hurdles appears to be producing the high quality demanded by the food processing industry and the erratic price changes without any support programs. Farmers have grouped together in the large production regions to deal with these challenges. First they have found ways to segregate quality so that food processing customers can be satisfied and fill other market channels with the lower quality products. Second they have found ways to pool their beans and then sell them over time, thereby smoothing out some of the extreme price changes.

* Grower bulk prices as reported by the USDA.

Health Benefits of Flax

By Catherine Volmert, Administrative Specialist

Flaxseed, even if you haven’t heard of it, has probably had an impact on your life. Flaxseed has been used for food and as feed for animals for several thousands of years. But it is far more flexible and full of potential.

Flaxseed is high in omega-3 fatty acids, the same unsaturated fats found in fish oil that are thought to inhibit coronary heart disease and lower blood cholesterol levels. Research by the University of Toronto and Princess Margaret Hospital in Toronto, Canada, reported daily consumption of 25 grams of flaxseed slowed tumor growth in newly diagnosed breast cancer patients.

Flaxseed is higher in potassium than bananas; it is a rich source of lignans, a type of phytoestrogen that is a possible anti-cancer agent. And it has long been known as an effective laxative when consuming a tablespoon or two a day.

Aside from all of its positive dietary benefits, the fiber from flax stems is what linen fabric is made from. People have been creating linen cloth from flax as long ago as ancient Egypt. Another product is linseed oil. Linseed oil is pressed from flaxseed and is an ‘industrial’ oil used for paints, coatings, linoleum and other products.

These are so many incredible benefits from one small plant with a little blue flower. Give flax a try in the recipe that follows and enjoy its nutritional benefits.



Flax Cookies

1 cup Ground Omega flaxseed meal	1 tsp. Baking Soda
1 1/2 cups All purpose flour	1/2 tsp. Salt
3 cups Quick Quaker oats	1 tsp. Vanilla extract
1 cup Raisins & chocolate chips, if desired	2 eggs or 4 egg whites
1 cup Brown sugar	1/2 cup Canola or olive oil
1/2 cup Granulated sugar	1/2 cup Applesauce
1 tsp. Cinnamon	1 cup Buttermilk

Mix and beat all wet ingredients with sugar, salt, soda and cinnamon. Add raisins and chips, then add flour, flaxseed and quick oats. If necessary, gradually add more milk or water to get a “flowing” dough. Drop on cookie sheet and bake 15-18 minutes in actual 350°F. oven.

Recipe notes: The mix produced a loosely “flowing” dough and I added another tablespoon each of flax and flour. However, if you will allow the dough to rest for 5-10 minutes it will thicken on its own and have a good dropping consistency. I also added a mixed cup of raisins and chocolate chips to the batch. These moist cookies were eaten by ages 6 to 66 and enjoyed by all. Enjoy!