

You're Invited to a Special Event!

Sponsored by the Jefferson Institute & MU

An Alternative Crop Field Day will be held Wednesday, August 21 at the Bradford Research & Extension Farm in Columbia, MO. The event will start at 8:45 a.m. with complimentary refreshments and registration. Programs and tours will start at 9:00 a.m.

Walking and wagon tours will feature more than 20 alternative crops including: sesame, sunflowers, amaranth, pearl millet, buckwheat, dry edible beans and edamame soybeans.

The field day will conclude at 11:00 a.m. and the Jefferson Institute staff will be available for questions and discussion at that time.

Need more information? Please contact the Jefferson Institute at 573-449-3518.

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

Calendar of Events

August 8-18, 2002

Missouri State Fair - Sedalia, MO
(Come see our demonstration garden!)

August 21, 2002

Jefferson Institute
Alternative Crop Field Day
Columbia, MO

August 30, 2002

Delta Research Field Day,
Portageville, MO

October 25-26

Special Forest Products
Marketing & Production
Cape Girardeau, 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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Agricultural Institute**

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JEFFERSON INSTITUTE NEWS & VIEWS

www.jeffersoninstitute.org

Volume I, Issue II - Summer 2002

Impact of the New Farm Bill on Diversification

By Rob Myers, Executive Director

The new Farm Bill passed in April includes new or modified programs that may help crop diversification efforts. These programs include grant funds for farm groups developing value-added products and new funding for bioenergy. Loan deficiency payments continue to be available to minor oilseeds such as sunflowers, flax and canola. However, the programs most likely to affect diversification are in the conservation section of the Farm Bill.

Two noteworthy conservation changes in the Farm Bill are a dramatic increase in funds for the Environmental Quality Incentives Program (EQIP), and creation of a major new program called the Conservation Security Program. EQIP is a federal program that allocates conservation funds through state NRCS and FSA offices. Decisions about priorities for EQIP funds are made by the NRCS State Conservationist with input from a State Technical Committee. To date, EQIP funds in Missouri have been used primarily in targeted geographic areas for priorities such as water quality and waste management. About \$3 million has been available annually in Missouri,

but this amount will jump by several million dollars because of the new Farm Bill. With expanded funding, more priorities will be identified, and the program will move to a state-wide program where all farmers are potentially eligible.

While there will still be priorities for EQIP funds, farmers can "gain points" on their application for a wide variety of conservation practices, including cover crops and soil-conserving crop rotations. Alternative crops that reduce the potential for nutrient run-off, or provide other conservation benefits, could be one of the practices given credit towards payments under EQIP.

The Conservation Security Program, a brand new program that will be implemented in 2003, will provide even more opportunity for farmers to receive payments in support of diversification. While USDA is just now drafting rules for the program, Congress directed USDA to give credit to crops which are "resource conserving," including those that reduce need for irrigation. Several alternative crops may fit into this definition, including legumes, and drought-tolerant crops such as millets, amaranth, sunflowers and sesame. Contact your local NRCS office or the Jefferson Institute (573-449-3518) for more information about these programs.

Farmer's Corner: Dave Mikus, Wright City, MO

By Cortney Miller, Communications Specialist

After graduating from the University of Missouri, Dave Mikus went home to join his brother and father on the family farm in eastern Missouri. Realizing there wasn't enough income to go around, the Mikus family began looking into other crop options. Mikus now grows pumpkins, Indian corn, gourds, millet and sunflowers in addition to soybeans and corn on his cropland.

Mikus has grown oilseed sunflowers for three years. Once harvested, he sells the seed as birdseed. He cleans and bags his own birdseed and sells it throughout the year. His family bags three different products: a black oilseed bag; a pearl millet and sunflower mix; and a sunflower, pearl millet, cracked corn and milo mix. He will sell the black oilseed in 50 pound bags and the mixes in five gallon buckets. Mikus says he will sell approximately 50,000 pounds of oilseed sunflower in one year.

"Living close to the St. Louis metropolitan area has helped our business out tremendously," says Mikus. His pumpkin patch is one of the biggest in eastern Missouri and draws many urban customers during the fall months. Mikus hires at least ten people through the fall to work alongside his family. Through advertising and community support, his market and business has grown and prospered.

Rob Myers, of the Jefferson Institute, and Dave Mikus discuss alternative crop products.



Canola Offers Opportunity for the Fall

By Alan Weber, Economic & Marketing Specialist

Hot and dry conditions throughout many regions of Missouri created poor double-crop conditions, leaving many wheat acres fallow. Some producers are considering planting canola on those acres this fall. Canola oil is popular with consumers due to low levels of saturated fats. U.S. production, however, is not sufficient to meet this demand. In fact, the U.S. imports roughly 2.5 million acres of canola each year from Canada.

Although the potential for acreage is substantial, Missouri producers must consider delivery points and the resulting impact on profitability. From the marketing perspective, canola can be transported to crush facilities such as those in North Dakota, however a closer (and more unique) opportunity exists.

A large mushroom farm in northwest Oklahoma has been purchasing limited amounts of canola seed. J-M Farms (Miami, OK) is a family business established in 1979. The company employs more than 300 people to operate its mushroom farm and its slicing, packing and packaging operations. J-M supplies product to several markets including the Kansas City metropolitan area. Canola seed is an important component of their mushroom growing compost.

J-M Farms receive a semi-load of canola every other week that is generally procured from the Dakotas or Canada. They have agreed to buy up to 500 acres of canola locally from Missouri producers with a guaranteed contract. J-M Farms will need to spread out delivery, so producers will need to have storage available for their canola. Rather than offering farmers a fixed price, they are using a bid system based on the way they buy wheat straw. Producers interested in growing canola must fill out a form indicating the price they will accept and the number of acres they will grow. J-M Farms will then compare those to other offers and determine which bids to accept.

From the production perspective, producers that have previous experience with canola cite winter-kill as a major issue inhibiting production in Missouri. Wichita is a new winter canola variety developed by the Kansas Agricultural Experiment Station. Wichita has shown a significant improvement in winter hardiness over previously released winter canola cultivars.

During 2002, a supply of Wichita is available from Missouri Foundation Seeds in Columbia, MO (573-884-7333) for \$2.50 per pound (recommended seeding rate is 5 to 6 pounds per acre). The window to plant canola is tighter than winter wheat and should be planted by September 25.

Increase Your Farm Income

By Darrell Yuen, Project Development Coordinator

The new farm bill will bring many new grant opportunities to family farmers and local advocacy groups beginning with fiscal year 2003. Sounds great, but many of you out there are scratching your head asking, "I've never applied for a grant before, how does all of this apply to me?"

The grant application process is not as mysterious as many of us tend to think. The three basic steps involved in applying for grants are as follows:

- **Obtain the grant application guidelines:** download an application from the internet or pick up guidelines from the local agency office (like USDA service centers) and discuss your eligibility with the grant officer.

- **Prepare the grant application:** spend time thinking about your project and how it will run; then outline your activities on paper; obtain assistance with the actual grant writing process from the granting agency or other local advocacy groups offering grant writing services.

- **Submit the grant application:** make necessary copies of the application (be sure to keep one for your files) and deliver to the appropriate address; a key component of the post grant writing process is to maintain contact with the grant officer in order to answer any questions on your application that may arise.

Sounds easy enough, but like anything else in life, your first grant application will be very difficult and challenging. But with enough perseverance and foresight, you'll quickly become an expert at the process and will eagerly await the next grant opportunity. Plus, you will open your farm operation or advocacy group to a whole new source of funding. It's worth it to give this process a try. It's a great off-season activity and will lead to new relationships with local extension and outreach staff as well as with local advocacy groups like the Jefferson Institute. Particularly appropriate grant programs for farmers are the Missouri Sustainable Agriculture Demonstration Awards (<http://agebb.missouri.edu/sustain> or phone 573-522-8616) and the USDA SARE Producer Grant Program (www.sare.org/nrcsare/prod.htm)

Call Darrell at the Jefferson Institute development office with any questions at 573-441-2745.

Mechanized Sesame Production Made Possible Through Plant Breeding

By James Quinn, Crop Specialist

Sesaco Corporation, a Texas company, was formed in 1978 to mechanize sesame production. The primary obstacle for mechanized sesame production is summed up in the phrase that is still commonly heard "open sesame," a reference to the way sesame pods pop open and lose seed (shatter). Sesame was traditionally cut slightly green, put in shocks and then flailed after drying to release the seed. This process has been semi-mechanized in some sesame producing countries and was practiced in U.S. production in the 1950s and 60s.

The initial plant breeding material for Sesaco was from Dr. D.G. Langham, who discovered the indehiscent character for sesame in 1943 in Venezuela. A second gene that keeps the capsule closed was discovered in 1986. Ironically, a following problem was getting the capsule open without severe threshing. Since it is a seed of very high oil content of over 50 percent, it must be handled gently. Initial harvest methods involved swathing, but as successive varieties have been released (more than 24), it is now possible to direct harvest the crop when it dries.

Several other breeding improvements were needed for mechanization. Plant stature traits have included controlling the height of the plant to a five foot maximum, getting the minimum height of the first capsule to about one foot, and having a moderate branched habit; all important for combine efficiency. Sesame combined directly, instead of swathed first, has improved the seed cleanliness and reduced seed damage; important issues for domestic production of a high quality food product.

Two cultural issues remain challenging. First, is lack of vigor in sesame seedlings. These seedlings emerge poorly in crusted soils. Sesaco is addressing this by selecting for types with more vigorous seeds. Second, is the lack of herbicides registered for sesame, a typical problem with emerging crops.

Sesaco varieties are bred with good drought tolerance. Prospects for sesame in Missouri appear best in the southwest part of the state, as a delivery point is available in northeast Oklahoma. It appears additional acreage potential for sesame is worth pursuing since the U.S. annually imports about 100,000 acres of sesame seed and oil.

The Jefferson Institute is working to develop sesame as a profitable alternative for Missouri, and is testing new varieties this summer. See our sesame guide at www.jeffersoninstitute.org for more information.

Jefferson Institute Heading to the Fair

By Cortney Miller

For the first time, the Jefferson Institute will be an exhibitor at the Missouri State Fair in Sedalia. The fair begins August 8 and ends August 18.

Along with our staff and display, there will be a live alternative demonstration garden on exhibit. This is not only a first for the Jefferson Institute, but a first for the Missouri State Fair as well.

Fairgoers will have the opportunity to see 10 alternative crops up close. Crops include: sunflower, sesame, buckwheat, crotalaria, edamame soybeans, black beans, blackeye peas, flax, pearl millet and amaranth.

Jefferson Institute staff will be with the demonstration every day of the fair to answer questions or discuss planting options for Missouri farmers. The staff is providing brochures, planting guides, recipe cards and sunflower snacks for those interested.

The planting is located outside the south door of the Agriculture Building and across from the Children's Barnyard. Come by and see us!



A live exhibit will be on display at this year's Missouri State Fair.

ALOT Accepting Applications for Class X

The Agricultural Leadership of Tomorrow (ALOT) program is now taking applications for their tenth class. The class will meet for nine three-day, in-state sessions around Missouri, one week in Washington, D.C. and two weeks abroad over a two year period.

Applications are available by contacting Kristin Perry, ALOT Executive Director, at 573-324-6538 or at www.missourialot.org.

Application deadline is October 1, 2002.