

# Research team gets funds

It may not be a household name even among farm families, but the oilseed camelina is showing good potential as an environmentally-friendly commercial biofuel feedstock, particularly for biodiesel and jet fuel. To that end, the U.S. Department of Agriculture has just awarded \$5.08 million to a team of researchers, led by K-State Distinguished Professor in Grain Science and Industry, Xiuzhi Susan Sun, to study the crop's potential. Besides K-State scientists, the team is also composed of researchers from Montana State University; University of Wyoming; StrathKirn, Inc.; SBT, LLC; Montana Gluten Free, Inc.; and Henkel.

"The overall goal is to make oilseed camelina a cost-effective bio-energy and bio-based product feedstock. This project will generate substantial information that will build a foundation to make nonfood oilseeds a better resource for biofuels, chemicals and bio-products, with minimal negative impact on food crop systems or the environment," said Sun, who is co-director of the Center for Biobased Polymers By Design. Her research focuses on how plant- and grain-based materials such as oils, proteins and fibers can be used to create bio-based chemicals and products like resins, adhesives, coatings that are safer, more durable and environmentally friendly than products currently in use.

"USDA's continuing investments in research and development are proving a critical piece of President Obama's strategy to spur innovation of clean bio-energy right here at home and reduce our dependence on foreign oil," said agriculture sec-

retary Tom Vilsack in a Jan. 11 statement announcing several bio-energy awards, including the camelina research. "The advances made through this research will help to boost local economies throughout rural America, creating and sustaining good-paying jobs, while moving our nation toward a clean energy economy."

The camelina project funding is part of a \$25 million effort by USDA's National Institute of Food and Agriculture to fund research and development of next-generation energy and high-value bio-based products from a variety of biomass (plant) sources.

Previous studies indicated camelina-based jet fuel reduces net carbon emissions by about 80 percent, compared with jet fuels currently in use. It has been tested by the U.S. Navy and Air Force and the results have been promising, but Sun said that producing fuels from camelina is currently not economically viable. Obstacles include the fact that camelina production is not sufficiently efficient per unit resource used and camelina oil processing generates about 65 percent solid meal by-product, mainly proteins and carbohydrates that is currently underutilized. The technology has not been developed to produce high-value co-products from camelina bio-energy varieties.

With an eye on those challenges, the researchers Chengci Chen of Montana State and Augustine Obour of the University of Wyoming will look for ways to enhance camelina production by optimizing cropping systems within wheat-based crop rotations in Montana and Wyoming, where preliminary work has al-

ready been done, Sun said.

Once harvested and processed, Sun will develop new technologies to chemically convert camelina oil and meal to a variety of adhesives, coatings and composites, thus adding value to the co-product.

She will work with K-State's Donghai Wang, professor in K-State's Department of Biological and Agricultural Engineering, who will conduct fractionation and processing optimization research in collaboration with industries for commercialization potentials.

"Although camelina is currently grown in Montana and Wyoming, it will expand to the Northern Great Plains area, and it's possible that agricultural producers in Kansas might be interested in incorporating the crop into their cropping systems in the future," Sun said.

The team members from the collaborative organizations, Jim McLaren (StrathKirn, Inc.), Shing-I Chang (K-State Department of Industrial and Manufacturing Systems Engineering), Tom Foulke (University of Wyoming Department of Agricultural and Applied Economics), Anton Bekkerman (Montana State University Department of Agricultural Economy), Terrie Boguski, and Blasé Leven (both with K-State's Center for Hazardous Substances Research), will conduct the camelina crop's life cycle assessment and economic analysis, from planting and growing the crop through to the resulting bio-energy, bio-based chemicals and processed bio-products as well as conduct on-farm demonstrations in Montana and Wyoming.

# Home grown treats...



Students at Eisenhower Elementary School made pretzels on Tuesday in the cafeteria as part of the Little Red Hen Project. The purpose is to give the students hands-on experience for where food comes from, field to fork, by planting wheat seeds, monitoring growth, harvesting, and grinding the wheat into flour to make pretzels. The Norton County Farm Bureau and the Twin Creeks Extension District sponsors the project. —Telegram photo by Mike Stephens

## HANSEN MUSEUM

The Dane G. Hansen Memorial Museum presents a Dual Showing "Brush Strokes by Bobbi Kerth" and "Paintings by Staci Hartman." The exhibit opened Dec. 7, 2012 and will run through Feb. 3, 2013. You only have a few days to come in and check out this amazing exhibit.

Bobbi Kerth lives in WaKeeney. She paints in her home studio in the mediums of oil and watercolor. Her family and her love of nature are great inspirations for her award winning paintings.

Staci Hartman has spent the majority of her life in North Central Kansas in Logan. Her work shows typical scenes of rural life. She loves to travel and extend her subject venue. Her creative work is done in oil and pastel.

Our next exhibit will be the 36th Annual High School Art Show which will be displayed from Feb. 8, 2013 through March 10, 2013. There will be a preview for this exhibit on Sunday, Feb. 10, 2013. Area schools that are involved in the art show this year are Norton, Phillipsburg, Hill City, Logan, Smith Center, Osborne, Ellis, and Plainville.

## JENNINGS NEWS

There are still several people in Jennings area sick with flu-like symptoms. We wish them all a speedy recovery.

Those enjoying playing cards on Wednesday were: Eleanor Morel, Diane Carter, Agnes Wahlmeier, Carol Carter, Stan and Ramona Shaw, Scott Taylor,

Wayne and Louise Cressler. We play every Wednesday at 1:30 p.m., in the Sunflower Senior Center. Come join us.

There was no United Methodist Women's meeting Wednesday, due to a mix up in the date it was to be held.

The Christmas decorations

were taken down on Tuesday and Wednesday.

Reminder: Postal patrons meeting is February 5 at the former Masonic Hall at noon. This is an important meeting concerning the hours of our Post Office in the future.

## LYLE NEWS

Behind me, in the middle of the living room, is a tent-maybe eight feet in diameter, which seems to be a large quilt covering several chairs. Kylie is saying, "There's a mess in here." I wonder who made it. No school today, thanks Martin Luther King. We older people often remark that children can use their imaginations and create fun for themselves without a lot of money.

Speaking of fun, June Jolly says she and others have started a cards marathon, two groups. She and friends are having a pajama party next Saturday, and she went with Linda and

Dennis McFarland to Dean and Rhonda Jolly's last Saturday.

Judy Easton did a program with the bells, then she and Charlie came to Toots Magers in the afternoon.

Jane Engelhardt was taken to Kearney and was given a pacemaker last week and returned home on Thursday. Her group was bowling, and although she couldn't bowl, she could go and keep score. We hope she continues to improve and has no more trouble.

Lloyd Frandsen and Kathie Van Meter attended the funeral of Marian Pachner, sister in law of Kathie, at the Akron, Co.

Presbyterian Church on Friday, Jan 18. Other family members attending were Steve and Julia Van Meter of Gibbon, Ne. and Marlow and Mary Westerbeck of Wellesville, Ks. A luncheon was served.

Gary Anthony reports that Keith is making improvement, although slower than we would like.

My doctor gave me permission to bear half my weight on the ailing leg, and maybe all of it in a week or two. My company over the week-end were Carol Moye, Maria Bader, Emily Bader and friend.

## Graders

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county tire repaired at the tire repair stop in Norton. The men said that they try to take things in for repair on Friday and hopefully have them back on Monday but obviously that doesn't always work.

Ms. Smith was less enthusiastic about getting the machine, noting that it would wipe out the road and bridge department's tool budget for the year.

She also said one of the reasons the department hasn't bought a tire repair machine in the past is due to worker's compensation insurance issues.

If the cage, that comes with the machine, isn't used correctly and a tire blows up while being repaired, serious injuries could occur, she said, and it will take five years for the machine to pay for itself anyway and the shop crew would still have to change tires.

The county had \$1,777 in tire

repair bills last year, she said.

"This machine will save you from having to take a bar and beating on (the tire to get it off of its wheel), Mr. Pfannenstiel said.

"This zips the bead right off," he added.

The shop's biggest need, however, Ms. Smith said, is to get rewired. The building was not made to handle the power load it now has to carry.

The commissioners agreed with her.

"We can't afford to burn that place down and most fires are electrical," said Commissioner Charles Posson.

In other business, the commissioners:

- Held a 10-minute closed session to discuss non-elected personnel and a 20 minute session with attorney Doug Sebelius and Emergency Medical Services director Jane Wyatt on a matter of patient confidentiality.
- Visited with Wanda Vin-

cent on what is happening in the register of deeds office. She went over what her office does and what fees are charged for services. In 2010 the office put \$70,072 in the county general fund; in 2011, \$71,454; and in 2012, \$78,677.

• Accepted a contract between the county noxious weed department and the Kansas Department of Transportation for spraying along state highways.

• Heard that Emergency Management Supervisor Justine Smith has received a quote for \$3,858 to have safety lights and a radio installed in her county vehicle. The quote also includes two hand-held radios for use by any county employee needing them.

"We have no backup radios anywhere in the jurisdiction," Ms. Smith explained to the commissioners when asked why she needed the hand-held models.

## The Sea Chanters FRIDAY, March 8, 2013

7:30 P.M.

East Campus Auditorium, Norton

*The 20-voice chorus, accompanied by a three-piece rhythm section, will perform a variety of styles ranging from patriotic selections to Broadway showstoppers*

**The Concert is FREE, but Tickets are Required**

Tickets are available by sending a self-addressed, stamped envelope to:  
**SEA CHANTERS CONCERT**  
P.O. Box 225, Norton, Kansas 67654

Name: \_\_\_\_\_

No of Tickets Requested: \_\_\_\_\_

TICKETS ARE ALSO AVAILABLE AT THE  
FIRST STATE BANK,  
105 W. MAIN, NORTON, KS

**SPONSORED BY THE:**

**NORTON COUNTY  
ARTS COUNCIL**