KERR CENTER

Field Notes

Kerr Center for Sustainable Agriculture Vol. 33, #2 • Summer 2007

Inside This Issue:

Biofuels Workshop	4
Grazing Conference	2
Basic Skills Workshop	3
Essay Contest Winners	6
Organic Gardens Workshop	7
Organic Foods FAQs	9
Lane Center Field Day	10
Direct Marketing Workshop	12
Annual RC&D Conference	14
Meat Goat Workshop	15
Calendar	16

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pgs. 7, 8: Maura McDermott

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pg. 15: Wylie Harris

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The King is Dead, Long Live the King?

– Maura McDermott

In 1907, Oklahoma entered the Union already #1 in oil production. Everywhere gushers were spewing clouds of crude into the blue prairie skies. Some ordinary folks– barbers and meatpackers, cowboys and Indians among them– got lucky and got rich.

In 1927, Oklahoma was still #1. In 1935, ignoring restrictive city ordinances, the governor called out the state militia to protect drilling on the capitol grounds and on the lawn of the governor's mansion. Clearly, oil was king.

In the last one hundred years, vast lakes of black gold (Okie tea) have been taken from beneath Oklahoma's fields and prairies to power a thirsty world. By 1969, the Osage lands alone had produced a billion barrels. Oklahoma has gone—pedal to the metal— on one wild ride through the Century of Oil.

Pull up to 2007. While the state is still a leader in oil (and natural gas) production, the king's crown has lost some of its luster. Oklahoma is beginning its second hundred years sizing up a possible new energy king—biofuels.

This time around, say boosters, the gold is above ground— in the stalks and seeds of a variety of plants, including sunflowers, corn and switchgrass, harvested and then converted to biofuels.

A boost to farm and rural economies, cleaner air, a slowing of global warming and last but not least—greater energy independence—are a few of the benefits claimed for these new energy sources.

Research into biofuels around the United States and in Oklahoma is proceeding at a rapid pace. In June, Governor Brad Henry signed a bill establishing the Oklahoma Bioenergy Center to coordinate research at the University of Oklahoma, Oklahoma State University, and the Noble Foundation.

In recent years, the state of Oklahoma and the federal government have instituted an array of tax and other incentives for producing and using biofuels and the market has responded. In Oklahoma there are several biofuel plants up and running or in the works.

Despite these developments, ole King Crude still seems to be a hard act to follow. There is an ongoing debate about just how lucrative, sustainable, or even worthwhile the large scale production of such biofuels as ethanol and biodiesel really are. Critics say it takes more energy to produce biofuels than they yield when burned. Others say that increasing the average mileage of cars and SUVs by 3-5 miles per gallon would save much more gas than even very intensive biofuel production in the U.S.

The Kerr Center hopes to shed some light on the subject during its seminar, "Biofuels: Could They Benefit Your Farming Operation?" to be held August 3 in Oklahoma City, cosponsored by Langston University and in partnership with the USDA Risk Management Agency.

This event will emphasize practical information for farm families. Many farmers are interested in biodiesel because it can be produced on the farm and used in farm equipment. Speakers will explore ways that producers may take advantage of alternative energy resources on the farm. In addition, attendees will learn about funding sources for biodiesel production as well as research on switchgrass, a promising biofuel plant.

Cost for the biofuels seminar is only $25 for the day. For full agenda, speakers and registration information go to page 4.

The Kerr Center for Sustainable Agriculture offers progressive leadership and educational programs to all those interested in making farming and ranching environmentally friendly, socially equitable, and economically viable over the long term.

The Kerr Center is a non-profit foundation located on 4,000 acres near the southeastern Oklahoma town of Poteau. It was established in 1985.

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Field Notes is published quarterly and is sent free to subscribers. Address correspondence to: Maura McDermott, editor.

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Design by Argus Designworks

Printed by Calvert-McBride, Ft. Smith, AR

Grazing Lands Dollar$ and Sense

Oklahoma Grazing Lands Conference to be held August 16-17, 2007

The Oklahoma Grazing Lands Conservation Association (OGLCA) will host its annual "Grazing Lands Dollar$ and Sense" conference August 16th and 17th at the Biltmore Hotel in Oklahoma City. Registration is $100 and includes lunch on both days plus a copy of the proceedings.

This year's lineup of speakers features grazing luminaries Jim Gerrish, Terry Gompert, and Greg Judy. Together, the three will address a variety of grazing-related topics, including matching livestock demand and forage supply, planning for successful winter grazing, why you should be out of the hay business, using native range in the winter, stockpiled perennial forages, use of winter annuals and crop residues, and fencing tools and techniques for winter grazing.

Jim Gerrish, of American Grazinglands Services LLC, was a researcher at the University of Missouri's Forage Systems Research Center for over 20 years. During that time, he and his family also ran beef stockers and a cow-calf operation on their ranch in northern Missouri. The author of *Management Intensive Grazing: The Grassroots of Grass Farming*, he is now an independent grazing management consultant based in May, Idaho.

Terry Gompert, an Extension Educator with the University of Nebraska-Lincoln in Knox County, Nebraska, is a Certified Educator for Holistic Management. He and his wife run a grassfed beef business, Gompert Grass Fed Beef, from their ranch just outside Center, Nebraska.

Greg Judy, of Clark, Missouri, turned his family's farm finances around by contract grazing on rented acreage. His book, *No Risk Ranching: Custom Grazing on Leased Land*, explains the fundamentals of his signature approach to pasture-based profits in the livestock business.

OGLCA is a nonprofit organization comprised of landowners, producer organizations, conservation groups, and public agencies. It spearheads the Grazing Lands Conservation Initiative (GLCI) effort in Oklahoma. GLCI is a nationwide, producer-initiated and –led network with the goal of maintaining and improving the management, productivity, and health of the nation's privately owned grazing land.

This event is sponsored in part by the Kerr Center in partnership with the USDA Risk Management Agency, an equal opportunity provider.

Deadline for registration is August 10th. Any registrations after the first person from the same family or operation are $50 per person.

To register, call Kim Barker at 580.824.9011, or visit the OGLCA website at okgrazinglands.org.

Oklahoma Grazing Lands Conservation Association
www.okgrazinglands.org
Grazing Lands Conservation Initiative
www.glci.org

This event is presented in partnership with the USDA Risk Management Agency

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This institution is an equal opportunity provider

Basic Skills Workshop

Autry Technology Center • Enid, Oklahoma

Saturday, September 15th

Registration deadline: September 10th

Just moved to the farm or farmette or started a new venture on your farm? Maybe you need to sharpen your skills in some area. If so, this hands-on workshop might be just what you need.

The Kerr Center's "Basic Skills" Workshop is back by popular demand. This year the workshop is being offered in four locations around Oklahoma, making access easy for everyone.

Registration is $20 per person and includes lunch and materials. Each workshop is limited to 50 participants, so register early. Held rain or shine; bring a lawn chair.

Pre-registration required.

Select two sessions for the morning and two for the afternoon.

MORNING SESSION: PICK TWO

Designate #1 for first morning session (9-10 a.m.) and #2 for second morning session (10:30-11:30)

_____ Sprayer Calibration

_____ Soil Testing and Forage/ Pasture Identification

_____ Fence Building

_____ Trailer Backing

_____ Compost Basics

AFTERNOON SESSION: PICK TWO

Designate #1 for first afternoon session (1-2 p.m.) and #2 for second afternoon session (2:30-3:30)

_____ Small Engine (mowers, tillers) Repair

_____ Organic Vegetable Production

_____ Tractor Maintenance and Safety

_____ Animal Care (cattle, goats, hogs, sheep, horses) and Feed Labels

_____ Garden Irrigation

Name: _____

Address: _____

City, State, Zip: _____

Phone: _____

Email: _____

Fill out registration form and return it with workshop/topic selections to:

Kerr Center
Basic Skills Workshop
PO Box 588
Poteau, OK 74953
Include check for $20 made out to Kerr Center.

For more information call the Kerr Center at 918.647.9123

This event is presented in partnership with the USDA Risk Management Agency

RMA

This institution is an equal opportunity provider

BIOFUELS –

Could They Benefit Your Farming Operation?

AUGUST 3, 2007

Sponsored by the Kerr Center for Sustainable Agriculture and Langston University in cooperation with the USDA Risk Management Agency (RMA)

8:30 – 9:00	Registration
9:00 – 9:20	Welcome and Opening Remarks – Dr. Marvin Burns, Dean, School of Agriculture and Applied Sciences Bob Drake, President, National Grazing Lands Association
9:20 – 10:30	Growing Sunflowers for On-Farm Biodiesel Production – Thad Doye, farmer
10:30 – 11:15	Economic Assessment for Sunflower Biodiesel Production – Dr. Damona Doye, OSU Regent Professor and Extension Economist
11:15 – 11:30	Break
11:30 – 12:00	Funding Opportunities for Biodiesel Production – Jason Harvey, Market Development Coordinator, Oklahoma Dept. of Agriculture, Food and Forestry
12:00 – 1:30	Lunch, Speaker: Beating Fuel Prices with Waste Products – Wayne Keith, Alabama Farmer
1:30 – 2:15	Switchgrass Research for Biofuel Production – Dr. Paul Bartholomew, Professor, Langston University/ARS Mr. Dennis Howard, Assistant Administrator of Extension Outreach Programs
2:15 – 2:30	Break
2:30 – 4:00	Alternative Energy Sources on the Farm – Mike Morris, National Center for Appropriate Technology

Biomass/Biofuel Basics

Biomass, the organic byproducts of food, fiber, and forest production, can be used to generate electricity, and it provides an alternative for liquid transportation fuel.

Biofuel is any fuel derived from biomass, which typically includes agricultural crops such as corn and soybeans. However, current research focuses on the use of cellulosic feedstock such as switchgrass, cornstalks, and paper pulp or wood chips. Biofuels include methanol, biocrude, and methane. Ethanol and biodiesel are the most common and easily produced.

Ethanol, the most widely used biofuel today, can be used as an alternative fuel or as an octane-boosting additive to gasoline. Ethanol is primarily produced from the starch contained in grains through a fermentation and distillation process that converts starch to sugar and then to alcohol.

Biodiesel is a biofuel used in diesel engines. Biodiesel comes from plant or animal-based natural oils. Biodiesel is not the same thing as raw vegetable oil or unaltered used frying grease. It is precisely produced by a chemical process that removes the glycerin from the oil.

Adapted from the Oklahoma Department of Commerce, State Energy Office website.

During this centennial year, the Kerr Center, in partership with the USDA's Risk Management Agency, is offering a variety of educational events for farmers and ranchers. Many are free or very low cost. We invite you to come out and meet the folks working on meeting the many challenges that Oklahoma will face during its second one hundred years.

Extra: Biofuels

What's going on in Oklahoma and financial incentives
www.okcommerce.gov.
Click on *'Communities'* and then on *'State Energy Office'*

Overview of Switchgrass as a Bioenergy Crop
National Sustainable Agriculture Information Service (ATTRA)
www.attra.ncat.org/attra-pub/switchgrass.html
This paper has many links to research.

The problems with biofuels
The United States of America Meets the Planet Earth
Tad W. Patzek
www.berkeley.edu/news/media/releases/2005/08/NPC_briefing_Patzek.pdf

SPEAKERS

Dr. Marvin Burns is a professor and dean of the School of Agriculture and Applied Sciences at Langston University. The school prepares students for modern and sustainable careers in food and fiber production, family and consumer sciences, early childhood development, nutrition and dietetics, natural resources management, and other allied fields in Oklahoma, the nation and the world through an innovative infrastructure that integrates teaching, research and extension for a well rounded education.

Bob Drake of Davis, Oklahoma, has co-owned and operated Drake Farms, a purebred and commercial Angus operation with his brother, Tom, since 1964. Representing the National Cattleman's Beef Association, Drake chairs the steering committee of the Grazing Lands Conservation Initiative (GLCI). GLCI consists of individuals and organizations working together to maintain and improve the management, productivity, and health of the nation's privately owned grazing land. The Oklahoma group will hold its annual grazing conference Aug. 16 and 17th In Oklahoma City (see p. 2).

Thad Doye farms near Walters, in southwestern Oklahoma. He grows sunflowers, presses the seeds to extract the oil and then refines it into biodiesel using a commercial refinery that fits into a corner of his garage. The refinery is capable of producing 180 gallons of biodiesel per day. Doye uses the fuel to run his truck and tractors. (Doye and his sunflower diesel are profiled in the summer 2006 *Field Notes*.)

Dr. Damona Doye is an Extension Economist and Regents Professor at Oklahoma State University. Doye is the author or co-author of more than 400 publications on farm financial management, record-keeping, leasing, enterprise analysis, cost of production, integrated resource management and management information systems. Her website and materials that teach producers how to use Quicken for farm financial records have been used nationally.

Jason Harvey is a market development coordinator in the Marketing Division of the Oklahoma Department of Agriculture, Food and Forestry. He works with the Oklahoma Agriculture Enhancement and Diversification Program, a program established in 1999 which has distributed nearly $1.5 million dollars in loans and grants to 94 applicants. The program provides funds in the form of loans or grants for the purpose of expanding the state's value added processing sector and to encourage farm diversification.

Wayne Keith of Springville, Alabama, has converted a standard pickup truck to run on wood – or more precisely, on hydrogen, which is produced by burning wood in the back of the truck. He took a 1984 diesel truck and replaced its motor with a 1968 hot-rod engine with more horsepower. He then devised a wood-burning system with cooling and filtering units attached at the hood and in the pickup bed. He has driven 4,000 miles since he converted the truck.

Dr. Paul Bartholomew is a professor at Langston University and a research agronomist with the USDA Agricultural Research Service (ARS). He has authored many papers on cool season forages as well as low-input pasture improvement and forage management.

Dennis Howard is former Oklahoma Commissioner of Agriculture and Secretary of the Department of Agriculture, Food and Forestry. As commissioner, he established the Oklahoma Food Policy Council. Howard is currently assistant administrator of extension outreach at Langston University. The Center for Outreach Programs is comprised of the Grasslands Center of Excellence, the Small Farmer Outreach Training and Technical Assistance Project, the Conservation Training Center, the Public Policy Center and the Environmental Awareness Outreach Center.

Dr. Mike Morris is a team leader at the National Center for Appropriate Technology (NCAT) and works with ranchers and farmers to develop more efficient and sustainable ways of using energy. He is co-author of a new report/energy audit for the University of North Carolina's Cherry Research Farm. The report looked at many ways the farm could conserve energy and suggested a number of on-farm renewable energy possibilities. such as biodiesel and solar power.

REGISTRATION FORM

Register by July 30

Name _____

Address _____

Phone _____

Email _____

Make check payable for $25 to Kerr Center.

Mail to:
Kerr Center—Biofuels Seminar
PO Box 588
Poteau, OK 74953

This event is presented in partnership with the USDA Risk Management Agency

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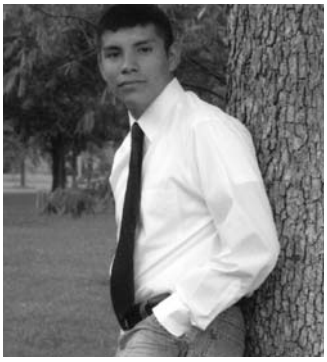
Biofuels Essay Contest Winners Announced

Sarah Hagan, Coweta High School

"The country is currently learning that too much dependence on any single item presents a problem."

Abby Winstone, Ninnekah High School

"Biofuels, although they may not be the complete solution to our energy needs, are one of the many options to answer our energy crisis."



Zachary Rice, Pawnee High School

"If we continue using commodities such as corn and soybeans to produce biofuels, then the price of food will eventually increase."

In early May, the Kerr Center announced the winners of its annual essay contest for Oklahoma high school juniors and seniors.

The subject of the 2007 contest was "Renewable Energy: Are Bio-Fuels the Answer to Our Fuel Crisis?"

The first place prize of $750 went to Sarah Hagan of Coweta High School, for her essay, "Biofuels: A False Hope for America's Energy Crisis."

"I have learned so much in the process of writing this paper," Hagan wrote in a letter submitted with her winning essay. "Even if I don't win, I have learned a lot!"

Abby Winstone, of Ninnekah High School, secured the $500 1st runner up prize with her essay, "Answering Our Fuel Crisis."

The Honorable Mention award of $250 went to an essay titled, "Renewable Energy: Are Biofuels the Answer to Our Fuel Crisis?" by Zachary Rice of Pawnee High School.

The center received over 200 entries from around the state, from schools large and small, urban and rural, said Anita Poole, contest coordinator.

A panel of independent judges chose the winners.

"We would like to commend all of the essayists for learning about the subject and for embracing the complexities of the debate," said judge Montelle Clark of Tulsa.

This year's theme was chosen because of the rapidly growing interest in bio-fuels in Oklahoma. The state's first biodiesel production plant opened in Durant in 2006, and Governor Brad Henry recently called for the creation of an Oklahoma Biofuels Center.

Biofuels are made by converting agricultural products, such as corn or soybean oil, into fuels like ethanol and biodiesel. The nationwide demand for, and production of, biofuels have both increased sharply in recent years.

Many of the writers discussed the potential that increased biofuel production could have for Oklahoma and farm communities, but they also recognized that the development of biofuels has global implications, said Clark.

"We were also impressed by the number of writers who discussed the farm economy, dependence on foreign oil, global warming, ozone depletion, soil and water depletion, and hunger," he added. "It's encouraging to see so many young adults recognizing these vital issues. A couple of writers even thought beyond the subject and mentioned the importance of conservation."

"I hope that the essayists will continue their study and debate about renewable fuels to ensure a more sustainable future," said Poole.

The annual Kerr Center essay contest, open to high school juniors and seniors, is designed to include young people in a thoughtful discussion of contemporary food and agricultural issues. Winners receive cash awards.

Contest information is sent out each January to all high schools in the state. Past themes have included the potential for farm-to-school programs, and sustainable agriculture issues. Winning essays from past contests can also be read online.

The 2007 winning essays can be read online at www.kerrcenter.com

The Name Says It All:

Organic Gardens Hosts Workshop September 9th

–Wylie Harris

"My entire knowledge of gardening is word-of-mouth or from gardening books," John Leonard grins.

That was in the beginning. Today, Leonard has years of experience in the garden under his belt and an interesting story to tell.

Continuing the tradition of spreading the word, Leonard will share his unconventional but time-tested thoughts on organic gardening at his aptly-named farm, Organic Gardens, near El Reno on September 9.

While working as a landscaper and then a feed-store hand, Leonard picked up enough tricks of the trade to launch a successful certified organic market gardening operation on 5 acres at the edge of El Reno.

Six years later, Organic Gardens is going strong, selling certified organic produce from roughly two and a half cultivated acres at two farmers' markets (OSU-OKC and Edmond), as well as to several Oklahoma City restaurants, including the new Wedge Pizzeria.

The farm gets calls from restaurants every day, according to Organic Gardens partner Jonathan Stranger. "They say, 'Give me what you have.' Everything we grow is taken."

Tomatoes and melons are the mainstays of the produce operation. Other crops include edamame, okra, cauliflower, and a variety of herbs and salad greens.

In addition, Organic Gardens features a greenhouse where Leonard grows bedding plants and herbs, a lucrative component of the overall business. The farm also sports several rows of blackberries, with a new planting of blueberries this year.

John Leonard in his garden

Tricks of the Organic Trade

The thought of struggling with stubborn clay soils deters many would-be Oklahoma gardeners. "We are so fortunate," Leonard says of the soil at Organic Gardens. "We have very sandy loam."

Truth is, fortune only played a small part. Leonard carefully chose the farm's site, less than a mile from the Canadian River, testing the soil and water before purchasing the property.

Leonard's self-taught approach to organic growing manifests itself in many unique practices.

For one, his vegetable beds are covered with weed fabric. "Everybody uses poly," he explains, "but weed fabric is reusable and lets the rain run through."

"We roll it to the ends of the beds at the end of the year, do very light tillage, put down drip tape, and unroll it. It sure saves on weeding."

The weed fabric also allows Leonard to leave tomato plants unstaked, keeping the plants from coming into contact with the soil, and the diseases that lurk there, when they sprawl over the fabric.

While most people would plant okra in closely spaced rows, Leonard has individual plants separated by three or four feet in weed fabric. "They get 3 to 4 feet wide, yield just as much, and you don't have to mess with weeds," he explains.

Handling pests can also complicate the lives of organic growers. "The squash bugs have already found the squash this year," Leonard says. "There's not a whole lot you can do about that, organic or otherwise."

"We rarely get aphids, whiteflies, or spider mites," says Leonard. "We have high populations of lacewings and ladybugs," beneficial insects that prey on pest species.

Jonathan Stranger and his lemon cucumbers

"Our biggest threat is caterpillars on the tomatoes – we spray Bt for that," he says, referring to a natural pesticide approved for organic use.

The Spice of Life

Even the most flawless approach to production wouldn't keep a direct market farming operation going for long without a sound marketing plan. Leonard has a few tricks up his sleeve in that department, too, centered on a variety of crops and close communication with his customers.

"We generally grow the same stuff, but add new stuff every year," he says. "We try stuff all the time. Sometimes it works, sometimes it doesn't – but we just give them a shot."

"Cherokee Purple," an heirloom tomato that's now a mainstay at Organic Gardens, started out as one such experiment. The tomato's color seemed to scare a few customers.

"We had to give those away the first year we grew them – we couldn't sell them," says Leonard. "It went from, 'My God, I'm not going to eat that!' to, 'Give me more!' We almost made addicts out of people."

Lemon cucumber, a more recent experiment, is currently at the give-away stage. At the farmers' markets, says Stranger, "Someone will take one, eat it, and come back and buy two or three pounds."

"The cucumber beetles don't mess with them as much as regular cucumbers. It doesn't hold up well in the store, but

"We had to give those away the first year we grew them – we couldn't sell them," says Leonard. "It went from, 'My God, I'm not going to eat that!' to, 'Give me more!' We almost made addicts out of people."

we don't care," says Leonard, whose direct marketing operation lets him sell perishable heirloom varieties within a day of harvest.

In addition to drawing new customers to his stand with unusual vegetable varieties at the farmers' markets, Leonard stays in touch during the week to keep them coming back.

"I keep an email list of about 80 people," he says. "I send out a weekly email to give customers a heads-up on what's coming."

One of this season's coming attractions is Tuscan melons. "They're like a cantaloupe on steroids," says Stranger. "Once you eat one, you'll never want a normal cantaloupe again."

Spreading the Word

The Kerr Center is sponsoring the workshop on September 9th, in partnership with the USDA Risk Management Agency, an equal opportunity provider.

According to Doug Walton of the Kerr Center, the workshop will cater to people interested in very small-scale organic production for farmers' markets and other direct-marketing channels.

"Leonard will address practical considerations for folks just starting out, and also looks forward to conversing with other experienced growers," said Walton.

The workshop runs from 2 to 6 and will be held rain or shine; bring a lawn chair.

Contact Information/Directions

Organic Gardens
John Leonard, mleoll2@aol.com
7401 Britton NE
El Reno, OK 73036
405-422-2890

From Interstate 40, take Highway 81 north through El Reno and across the Canadian River. Take the first right after crossing the river (Britton Rd.), and go east 4.5 miles. Look for a large greenhouse on the north (left) side of Britton Road.

Organic Foods: What Do We Need to Know about Them?

The growth of demand for organic foods in recent years has been phenomenal. The organic sector has grown about 20% each year for more than a decade. US sales topped $13.8 billion in 2005 and continued expansion is predicted.

It is estimated that three out of every four Americans have at least tried organic products. However, the growth of interest in organics has been accompanied by considerable confusion over terminology, labeling, and the regulations that surround it. This FAQ sheet attempts to shed light on some of these issues.

What does organic mean?

"Organic" refers to the way that food and other agricultural products are grown and processed. The USDA's National Organic Program defines organic food this way: "Organic food is produced by farmers who emphasize the use of renewable resources and the conservation of soil and water to enhance environmental quality for future generations. Organic meat, poultry, eggs, and dairy products come from animals that are given no antibiotics or growth hormones. Organic food is produced without using most conventional pesticides, fertilizers made with synthetic ingredients or sewage sludge, bioengineering, or ionizing radiation. Before a product can be labeled "organic," a government-approved certifier inspects the farm where the food is grown to make sure the farmer is following all the rules necessary to meet USDA organic standards. Companies that handle or process organic food before it gets to your local supermarket or restaurant must be certified, too."

Can't organic also be called GMO- and/or pesticide residue-free?

It is true that organic foods are produced without the use of genetically modified organisms (GMOs) and most synthetic pesticides. Unfortunately, pollen from genetically engineered crops like corn and canola is so prevalent in the environment that small levels of contamination are almost impossible to avoid. The same can be said for synthetic pesticides, residues of which can be found in ground water, rainfall, and soil. Therefore, claims that organic products are completely GMO- or pesticide residue-free are not made. However, studies indicate that pesticide residues are much lower in organic products. Also, GMO contamination of organic crops appears to be slight in those instances where it has been measured.

Why is it called organic?

Several farm and garden writers began using the word "organic" in the 1940s to describe a natural system of agriculture then commonly called "humus farming." It was intended to capture the essence of these farms as biologically complete, balanced, and self-contained units, and "organic" quickly became the more popular term. This is contrary to the prevailing assumption that the name is associated with organic chemistry or the kind of fertilizer organic farmers use.

Who regulates organic production, marketing, and labeling?

The federal government set parameters for the production, processing and certification of organic food in the Organic Food Production Act of 1990 and mandated the creation of the National Organic Program (NOP). The NOP is responsible for implementing and enforcing the National Organic Standard, which went into full effect October 2002. (The National Standard may be downloaded in its entirety from the NOP website at www.ams.usda.gov/NOP/.)

The key to implementation of the National Organic Standard is the certification of farms and processing or handling operations. Certification—the license to sell or represent a product as organic—can only be granted by certifying agents that have been fully accredited by the NOP. Farms or processors that sell less than $5,000 of organic products each year are exempt from becoming certified."

Information excerpted from a newly updated Kerr Center publication, *Organic Foods: What Do We Need to Know about Them?* by George Kuepper. The full publication is available free online at www.kerrcenter.com

Extra: Getting Certified in OK

As of summer 2007, Oklahoma counts 20 certified organic produce farms. There are two farms growing certified organic nuts, twelve each for small grains and livestock, and fourteen certified organic processor/handlers.

The Oklahoma Department of Agriculture is an accessible and inexpensive certifier for Oklahoma agricultural producers wishing to become certified as organic. Forms and information for the certification process are available on ODAFF's website at www.state.ok.us/~okag/forms-text.htm

Many other certifiers also include Oklahoma within their range of operations; for a complete listing, visit NewFarm.org's Organic Certifiers Database (www.newfarm.org/ocdbt/index.php) and search on 'Oklahoma.'

The Fast Lane to Successful Farming: Lane Agriculture Center Field Day

–Wylie Harris

What do organic vegetables, farm-to-school, and biofuels have in common? They're all part of the ongoing research that was on display at the Lane Agricultural Research and Extension Center's annual field day June 9th.

Each year, the station opens its doors to the public to share its current projects and latest results. The event is part carnival, with live music, an antique tractor show, stock dog demonstrations, rides in horse drawn wagons, and a catfish-and-watermelon feast. But behind the food and fun, there's a solid core of research driven by the present and future needs of Oklahoma agriculture.

Located in Lane, 10 miles east of Atoka, the center was set up some 20 years ago. In any given year, cropped research plots occupy from 40 to 80 of its total 287 acres, with other parts of the land in an irrigation reservoir, woodlands, wetlands, and a wastewater treatment area.

According to Lane researcher Warren Roberts, the center's primary emphasis is on vegetable production, with many projects also focused on what he terms "alternative agriculture."

Research Tailored to Growing Markets

The lion's share of those alternatives takes the stage on the Lane Center's 8 certified organic acres. The Oklahoma Department of Agriculture completed the certification in December 2005, making Lane the only public institution in the state with certified organic production.

"Organic farming is not new," says

Dr. Jim Shrefler, another Lane Center scientist. "In some respects, it was the farming and gardening of our forefathers."

What is new, Shrefler points out, is the large and growing market for organic foods. His and other Lane researchers' work with organic crops offers a vital source of information for Oklahoma farmers seeking to profit from that market.

The centerpiece of Lane's organic research program is a 4-year crop rotation growing watermelons, tomatoes, southern peas, and sweet corn. These crops all fit eastern Oklahoma's growing conditions, and each plays its own unique role in the sequence.

As the number one fresh market vegetable in Oklahoma by acreage, watermelon earned its place as a major cash crop, as did tomatoes. Sweet corn, another moneymaker, belongs to a different group of plants than the other crops in the rotation. That allows farmers to use different methods of weed control in the corn, "shaking things up" and keeping any one kind of weed from building up a large population over time. Southern peas, a legume, add fertility to the soil.

"Some vegetables can be grown organically in southeast Oklahoma," Shrefler says, summarizing four years' worth of results from the organic crop rotation experiment. "Peas and sweet corn are easy. Tomatoes and watermelon have considerable risks and some critical needs."

For example, some insect pests were attracted to the turnip cover crop, then remained to devastate the tomatoes that followed when the turnips were plowed under.

"There will be a learning curve," says Shrefler.

Crops for Fertility and Fumigation

Apart from the cash crops in the

rotation, Lane's organic researchers also grow sudangrass as a soil builder. In the off-season they plant turnips and crimson clover, to be plowed under in the spring as green manures to replenish soil fertility.

Fall applications of poultry litter, a readily available resource in much of eastern Oklahoma, provide the other major source of fertility for the Lane Center's organic acreage. "We now know we can use poultry litter as a fertilizer," explains Roberts. "We want to find out how long we can use it before phosphorus and other contaminants start to build up in the soil."

Outside the main crop rotation, the Lane Center keeps up a number of other experiments related to organic farming. Some compare organic to synthetic fertilizers; others evaluate different organic methods of weed and insect control in crops such as onions, turnips, and collards.

Even the crops themselves can sometimes be used for pest control. Nationwide, 75% of the watermelon crop is susceptible to a disease called fusarium wilt, which is conventionally controlled with methyl bromide, a highly toxic substance.

At Lane, some research focuses on crops called "biofumigants," such as India mustard and white mustard. These crops produce cyanide-like compounds that can also help to control fusarium wilt. In addition, the mustards are effective at capturing nutrients from the soil that would leach out from under other crops and be lost.

Farming for Schools and Fuels

Many Lane experiments, both organic and non-, incorporate variety trials to determine which cultivars of a given crop do best under Oklahoma growing conditions.

Some of those variety trials now also support Oklahoma's growing Farm-to-School program. Lane agronomists are currently trialing sixteen varieties of carrots, and a whopping ninety cultivars of tomatoes, in search of tasty, bite-sized vegetables that can go from field to cafeteria with little or no processing.

Lane Research and Extension Center

In addition to flavor and ease of handling, the Lane Center's research also evaluates traits that make one vegetable variety healthier or more nutritious than another.

For instance, lycopene, the naturally occurring substance that makes watermelons red on the inside, is also a powerful antioxidant with reported cancer-fighting properties. Some of Lane's research measures lycopene levels in different kinds of watermelon. Researchers are also evaluating low-sugar watermelon varieties as an alternative for people with diabetes.

The biofuels bandwagon has also rolled into Lane's research plots. The seeds of the same mustards that work as biofumigants yield oils that can be turned into biodiesel. The station also grows canola and castor for biodiesel research.

"We have more crops on biodiesel right now," says Roberts. "We'll probably do more on ethanol."

Lane is currently doing some work on sorghum for ethanol production, and may soon add the much-publicized switchgrass to that research, as well as another less widely known candidate: watermelon.

"Statewide, there's as much watermelon left behind in the field as harvested," Roberts says. That waste might conceivably be fermented for fuel ethanol, he explains.

Fulfilling the Mission

A strong common theme unites all of the Lane Center's disparate projects: the mandate to serve Oklahoma agriculture's current needs and anticipate those of the future. Information flows both ways; sometimes the researchers take new ideas for the farmers, and sometimes farmers come to the center with questions of their own.

That dynamic is plainly at work in the story of Sam and Willa Mae McClure, a Hughes County peanut farming couple who needed a new crop to stay profitable (see *Field Notes,* Spring 2003). With ample assistance from the Lane Center, McClure successfully switched to growing sweet onions, and onions still occupy much of researchers' attention at Lane.

"If we didn't have them to help us, we'd just be stumbling around in the dark," says Willa Mae McClure.

While the annual field day is certainly not to be missed, the answers to many questions don't even require a trip to Lane. The Lane Center maintains extensive resources on its website, www.lane-ag.org, including production manuals, pest management strategies, variety trial results, short research summaries, and much more. Whether in cyberspace or in the fields, the Lane Ag Center provides an invaluable service for Oklahoma farms and farmers.

The Field Is Just the Beginning:

Direct Marketing Workshop at Three Springs Farm August 2nd

–Wylie Harris

By the rulebook of industrial agribusiness, Three Springs Farm shouldn't exist.

Operating from just a handful of acres, and using only their own labor, farmers Emily Oakley and Mike Appel have been raising and selling fresh fruits, vegetables, herbs, and flowers for Tulsa-area customers since 2004.

Yet not only are they making a living, they're succeeding to the point that they've been able to move from rented land to a farm of their own.

Oakley and Appel may make standing the conventional wisdom on its ear look easy, but it takes continued careful planning and dedicated effort.

On Thursday, August 2nd, the couple will share the strategies that have helped them to succeed in a workshop on direct marketing. The free workshop runs from 5 to 9.

"We'll be focusing on direct marketing issues: how we market, and how that affects what we grow," says Oakley. In addition, she says, the couple will share some of the lessons they've learned in the process of transitioning from leased land to acreage that they own.

The Road to Market

The couple studied sustainable agriculture in college, and interned and worked on a variety of farms before returning to Oakley's native Oklahoma to start a farming enterprise of their own.

Their experiences taught them the ins and outs of growing food. However, Oakley says, "the field component is actually just one component." She ticks off some of the many other elements that have to be factored into the larger production plan: infrastructure, equipment, irrigation, fertility, pest control, post-harvest handling and processing, and transportation.

The couple's own experiences, and their planned program for the workshop, emphasize the office aspects of farming as a business, and recordkeeping in particular, as essential for keeping all these threads woven together.

"Recordkeeping is a big component, and critical to our crop production plan. It helps us to provide a diversity of products that's exciting to the customer, but still allows us to farm smart in terms of getting the biggest bang for our buck."

Oakley describes a three-pronged approach to marketing, including farmers' market, CSA, and wholesale venues.

Three Springs Farm sells at the Brookside and Cherry Street farmers' markets in Tulsa. They also run two separate CSA, or Community Supported Agriculture, operations with a total of 60 members.

In a CSA, customers pay an up-front fee at the beginning of the season for a weekly share of the farm's produce.

One of Three Springs Farm's CSAs works on that standard model, delivering baskets containing an assortment of whatever produce is ready for harvest that week. For the other CSA, the couple has developed a sort of debit-card system. Customers come to the farmers' market stand and receive their choice of items in any combination and amount, until their initial share fee is used up.

Oakley describes wholesale markets, the third prong of her and Appel's marketing approach, as "not the least important, but rather the last resort." Taken together, the three different venues act as a kind of insurance, to help the couple spread their risk.

"We focus on direct marketing retail, and that affects our production plan," Oakley explains.

"A major philosophy of ours is that we're committed to staying a two-person operation," says Oakley. At the workshop, she says, "We'll talk about how direct marketing helps us do that."

Breaking New Ground

This year marks Appel and Oakley's first season on acreage that they own, and they're adapting to the new chal-

Mike Appel

Emily Oakley and customer

lenges and opportunities that emerge from that transition.

The search for suitable ground was long and arduous. Like the marketing plan, the ideal acreage had to combine a number of features that were difficult to find in a single location. Good soil, access to water, and affordable prices all factored into the equation.

"We leased two and a half acres in west Tulsa for three years," Oakley recalls. "We looked at 150 different properties in that time."

But perseverance paid off. "We found twenty acres one hour from Tulsa, in northeastern Cherokee County," Oakley says.

"We're on Class II soil rather than Class I – that's one of the compromises we had to make," explains Oakley. "The joke around that area is that the land grows more rocks than soil."

"But it has good roads, and a lot of the infrastructure was already in place."

With so much more space now at their disposal, Appel and Oakley are feeling their way gradually into the new farm.

"So far, we've taken the old system and just placed it on this land," Oakley says.

"We have roughly three acres currently in vegetables, and we'll double-crop some of that. There's another three acres in a mixture of improved and native pasture grasses. We're discing, mowing, and incorporating that area repeatedly," she says, in order to build organic matter in the soil and segue into a long-term soil-building rotation.

"We're also excited about planting perennials," Oakley says. As part of the longer-range plan for adapting their operation to the new acreage, she explains, such high-value crops will help "to make our time pay us better."

Three Springs Farm's marketing approach played a major role in the move to the new farm. "Without the CSA," says Oakley, "there's no way we could have transitioned to the new farm, with the plethora of expenses."

"The support from our CSA members was huge – financial, emotional, and psychological."

Putting It All Together

The Kerr Center is sponsoring the August 2nd workshop, in partnership with the USDA Risk Management Agency, an equal opportunity provider.

Oakley and Appel plan an interactive session tailored to the backgrounds and interests of the participants, be they established or beginning farmers, people contemplating a farming venture, or customers.

"When farmers share with each other, there's just so much to be gained," Oakley says.

The pair actively practice what they preach about sharing with other farmers. In addition to hosting workshops like this one, they regularly publish articles on their own insights and experiences in publications such as *Growing for Market, Small Farmer's Journal,* and *Acres USA.*

That may seem like too much work on top of the small-farm entrepreneurs' already lengthy list of chores, but to Oakley and Appel's way of thinking, it's an inseparable part of their reason for farming.

"If we're not doing outreach," says Oakley, "we feel like we're not doing all of our job."

Held Rain or Shine; Bring a Lawn Chair

Three Springs Farm
Mike Appel and Emily Oakley
1367 Highway 82A
Oaks, OK 74359
918.868.5450
farmers@threespringsfarm.com
threespringsfarm.com

DIRECTIONS: From Tulsa, go east on US-412. A few miles east of the Choteau exit, 412 turns into the Cherokee Turnpike. Take the Turnpike for approximately 17-20 miles to the Rose/Leach Exit (the second exit on the Turnpike). At the end of the exit ramp, make a right onto Scenic 412, and follow it approximately 3.4 miles east to the town of Leach. At the sign for Rocky Ford State Park, turn right (south) on road 540. Go approximately 4.7 miles, passing over a creek, to a "T" intersection. Turn left at the "T." After approximately 2.3 miles, there will be two black mailboxes on the left. The driveway to the farm is on the left just after the mailboxes. Cross the bridge over the creek and look for a tan house with a red roof. Look for field day signs.

This event is presented in partnership with the USDA Risk Management Agency

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This institution is an equal opportunity provider

OKLAHOMA RC&D

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Save These Dates Partner!

"Traditions & Transitions"
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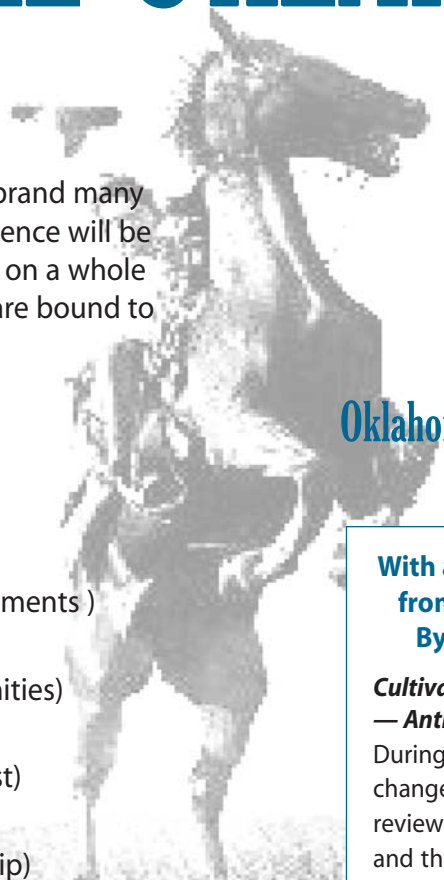

Should You Saddle Up?

Whether you've been riding for the brand many years or are a green horn, this conference will be full of information and offers forums on a whole herd of Rural Oklahoma topics that are bound to make your outfit a better place.

Here's a sample of the RANGE of sessions:

- **Celebrating the Traditions**
  (History, Arts & Humanities Achievements)
- **Celebrating the Transitions**
  (Cultural & Demographic Opportunities)
- **Dealing with a Stampede**
  (Planning for the Best and the Worst)
- **Rounding Up Future leaders**
  (Boosting Volunteerism & Leadership)
- **Staking New Claims**
  (Building Successful Entrepreneurship Programs)
- **Riding for the Brand**
  (Post-Conference Session for Oklahoma PRIDE)
- **Legislative Perspectives & Rural Caucus**
- **Exhibit / Trade Show Area -**
  Door Prizes, Silent & Live Auction items

Base Camp Location?

Just a short ride over to the "Sunny side of the Arbuckles" to the Ardmore Convention Center

Annual Conference of the Oklahoma Association of RC&D Councils
www.okrcd.org

With a Presentation Monday, August 13th, from 10:20-11:50 am and 3:15-4:30 pm
By Jim Horne, President, Kerr Center

Cultivating that Which is Good: Honoring the Past — Anticipating New Futures in Agriculture

During the last century Oklahoma agriculture has changed immensely. This presentation will briefly review the diversity of our people, crops, animals, and the time honored traditions that have served us well over the last century. Fast forwarding to the future, agriculture will be discussed in terms of transitions to the future by identifying viable trends. Trends discussed will offer a realistic opportunity to strengthen Oklahoma agriculture by improving the quality of life in rural communities, protecting natural resources, and improving profitability for those that farm and ranch.

J&S Goat Farm Hosts Meat Goat Workshop

–Wylie Harris

Forty-odd visitors congregated on Glenn & Imogene Stroud's J&S Goat Farm outside Roff on Saturday, June 2nd, to learn some tricks of the goat trade.

The Strouds, together with their son J.J. Jones and his wife Jean, hosted a meat goat workshop on their jointly operated farms. The two families raise full blooded Boer goats and Boer crosses, both for show and breeding.

Oklahoma is a leader in the current meat goat boom, ranking fifth in the nation in production. Between 1997 and 2002, meat goat production doubled in Oklahoma.

Worldwide, said J.J. Jones, more goat meat is eaten than cow meat.

As the market for goat meat grows, many beginning goat producers lack basic management and marketing information. To address that, OSU Cooperative Extension is currently developing a meat goat manual and training program, scheduled to be completed in early August.

The workshop at J&S Goat Farm offered a sneak preview of the kinds of information that the training program will provide.

The workshop began with a fencing demonstration by Denise Lemoin of Stay-Tuff Fence Manufacturing. With help from audience members, Lemoin stretched a 330' section of high tensile mesh wire.

"Fencing is probably the biggest problem area," said J.J. Jones, who also works as a Cooperative Extension Agent for OSU.

Following the fencing demonstration, Jones described the history of the two families' goat operations, focusing on both production and marketing aspects. The Strouds have been in the goat business since around 1990; the Jones switched over from cattle more recently, about two years ago.

In the beginning, the Strouds kept only Spanish, or "brush," goats – "just to kind of clean up the place," Jones explained, referring to the high percentage of woody shrubs and brush in goats' diets.

Since then, the Strouds have gone almost entirely to the Boer breed, originally developed in South Africa for meat production. Almost all their stock is now at least 50% Boer or more, and they keep registration papers for the premium that registered animals can bring at some sales.

Though J.J. Jones grew up around cattle and raised them as an adult, he and Jean made the decision to go with goats when they bought the place next to his parents'. "We wanted the kids to do something around the farm growing up," he said. "Goats were better than cows for that."

"My six-year old can catch any goat on this place," he laughed.

Following a lunch provided by Klein's Catering, of Perry, Jones and Stroud led workshop participants on a tour of the 35-acre farm, which is currently stocked with about 70 mother goats.

During the tour, visitors had a chance to examine various types of fencing, including electric, wire panels, and wire netting. Another highlight of the tour was a stop at the kidding barn, where "goat midwife" Jean Jones discussed the basics of kidding.

Goats appeal to many new livestock producers because of the relatively low entry cost, said J.J. Jones. Most of the buildings used on the farm, says Jones, were there when they bought the property. "We made it work," he emphasized.

The Kerr Center for Sustainable Agriculture and OSU Cooperative Extension sponsored the workshop, in partnership with the USDA Risk Management Agency (an equal opportunity provider).

Calendar: Summer/Fall Events

WORKSHOP: Direct Marketing*
August 2, 5 – 9
Three Springs Farm, Cherokee County
Farmers Mike Appel and Emily Oakley will relate their experiences and lessons learned about direct marketing fresh fruits, vegetables, herbs, and flowers through farmers' markets and CSAs in this free workshop. The couple recently transitioned from leasing land to owning their own farm, and will discuss that process as well.
(See p. 12-13)

CONFERENCE: Biofuels – Could They Benefit Your Farming Operation?*
August 3, 8:30 – 4:30
Oklahoma City
Farmers and researchers in the field of biofuels will gather to share their insights and vision for farm-based energy alternatives at this one-day workshop, sponsored by the Kerr Center and Langston University. Topics include production and economics of sunflowers for on-farm biodiesel production, funding opportunities for biofuels, fuels from farm waste, switchgrass and sorghum as sources for biofuels, and other alternative energy sources on the farm.
(See p. 1, 4-5)

CONFERENCE: 6th Annual Oklahoma Grazing Conference (Dollar$ and Sense)*
August 16-17
Oklahoma City
The annual Dollar$ and Sense grazing conference is co-sponsored by the Oklahoma Grazing Lands Conservation Association and the Oklahoma Land Stewardship Alliance. Featured speakers include Jim Gerrish, Terry Gompert, and Greg Judy. Registration is $100 and includes lunch and a copy of the proceedings, with discounts for additional family/farm members. Registration deadline is August 10. (See p. 2)

WORKSHOP: Organic Gardeners*
September 9, 2 – 6
El Reno
John Leonard of Organic Gardens in El Reno will describe his approach to successful marketing of certified organic fruits, vegetables, and bedding plants at Oklahoma City farmers' markets and restaurants from a small acreage outside El Reno at this free workshop. (See p. 7)

WORKSHOP: Basic Skills*
September 15, 9 – 3:30
Enid
Just moved to the farm or farmette, or started a new venture on your farm? If so, this hands-on workshop might be just what you need. Registration is $20 per person and includes lunch and materials. The workshop will be limited to 50 participants. Each participant will choose 4 different workshops for the day, from topics including soil testing and forage/pasture identification, fence building, composting, small engine repair, organic vegetable growing, basic animal care, and many others. (See p. 3.)

FARM FEST
October 12-13
Overstreet-Kerr Historical Farm
The annual Fall Farm Fest is held the second Friday and Saturday each October. Friday is reserved for school groups. On Saturday, the festival is open to the general public from 9 – 4. Volunteers demonstrate activities and crafts common on farms one hundred years ago, including blacksmithing, herb craft, soap making, Dutch oven cookery, rifle making, quilting, and the use of antique farm equipment. Also not to be missed is sorghum cooking, an authentic piece of Americana resurrected each year at Farm Fest.

**These events presented in partnership with the USDA Risk Management Agency, an equal opportunity provider*

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