

Field Notes



Kerr Center for Sustainable Agriculture

Vol. 26, #2 • Summer 2000

Diverse Projects Funded

—David Redhage

In March the Kerr Center awarded nine grants through its Oklahoma Producer Grant Program. This is the third year for the program. Since 1998 the program has awarded 20 grants to farmers and ranchers across Oklahoma.

Last fall we issued a call for grant proposals, open to all Oklahoma producers interested in researching or demonstrating innovative, sustainable farming/ranching methods.

At the same time, we also issued for the first time a special call for proposals aimed at organic producers in Oklahoma.

Applicants interested in either type of grant returned an application packet, which was evaluated by an independent technical committee of farmers, ranchers, and agriculture professionals.

Six grants went to producers interested in researching or demonstrating sustainable agriculture

Grants had to focus on one of eight priority areas.

Three grants went to organic

producers. Producers did not need to be organically certified, but did need to follow the Oklahoma Department of Agriculture's organic certification rules.

Grants awarded this time were very diverse, says Alan Ware, director of the program. Farms awarded grants make cheese, grow wine grapes, use goats to manage weeds, raise dry edible beans, and raise vegetables in a no-till, no herbicide system, as well as raise more traditional crops such as wheat, corn and cattle. One farm is establishing a three-acre corn maze to attract customers to their produce farm.

For more information on the program contact Ware at the Kerr Center or go to our web site.

Proposals for new grants will be accepted beginning this fall. To learn about the eight priority areas and common sense, sustainable farming practices contact the Kerr Center and request the fact sheet "72 Ways to Make Agriculture Sustainable."

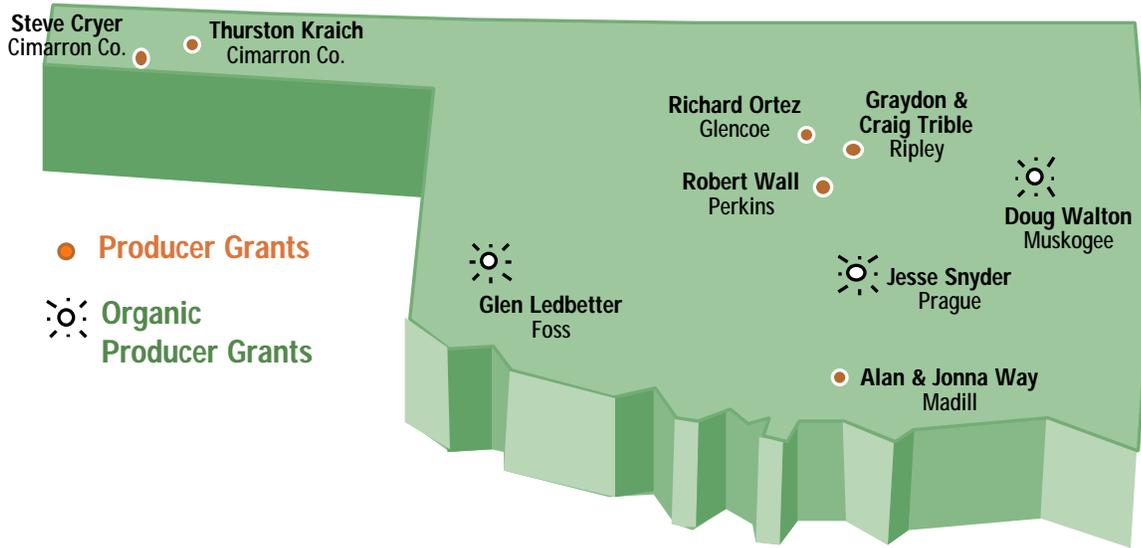
Producer Grants – Eight Points of Sustainable Agriculture

continued on page three

INSIDE THIS ISSUE

OALP– Oklahoma Agriculture Leadership Program	5
Beef Producer Survey	7
Genetic Goal Setting	11
Farmers' Market Field Day	12
Beyond Red Tomatoes: <i>Exploring Heirlooms</i>	13
Just In Time: Growing Grass A New Way	14
Goats & Grass: Calendar of Events	16

Oklahoma Producer Grants - 2000



<p>STEVE CRYER Cimarron County</p> <p>THURSTON KRAICH Cimarron County</p> <p>GLEN LEDBETTER Washita County</p>	<p>ROBERT WALL Payne County</p> <p>RICHARD ORTEZ Payne County</p> <p>GRAYDON & CRAIG TRIBBLE Payne County</p>	<p>JESSE SNYDER Lincoln County</p> <p>DOUG WALTON Muskogee County</p> <p>ALAN & JONNA WAY Marshall County</p>
---	--	--

Continued from page one

Steve Cryer of Cimarron County received a three-year, \$7340 grant, to conduct a variety trial to identify wine grape varieties adapted to the Oklahoma panhandle. The priority area: selecting adapted crops.

Three hybrid varieties will be tested for adaptability to conditions in the panhandle. Cryer has a 3500-acre farm and ranch operation in Cimarron County. The farm was started 50 years ago by his father. The farm and ranch raises wheat, corn, grain sorghum, soybeans, sunflowers, and cattle.

Cryer, his wife, and two children will be involved in the grant research project. The cooper-

ator on this project is Cherrie Brown of the Cimarron County NRCS.

Thurston Kraich of Cimarron County received a two-year, \$2510 demonstration grant, to examine the potential of using goats to control bindweed on dryland wheat ground. The priority area: managing pests with minimal environmental impact.

Electric fencing will be used to control the goats. The goal of the project is to keep the bindweed at a tolerable level without using herbicides.

Cooperators on the grant include Steve Kraich, Texas County OSU Extension and Rick Kakenower of Oklahoma Panhandle Research and Extension.

Richard Ortez of Glencoe received a two-year, \$7380 research grant, to explore the production of dry

edible beans as an alternative crop for small producers in north central Oklahoma. The priority area: selecting crops adapted the environment.

Ortez's grant will look at cultivating, harvesting, cleaning, storing, processing, and marketing dry edible bean seeds. Value-added marketing is seen as an important part of making this production system work.

Cooperators on this project are Tom Denny, an independent farmer, Nathan Anderson, Payne County Extension Director, Vincent Russo, Experimental Plant Physiologist, and William McGlynn, OSU Horticultural Products Processing Specialist.

Graydon and Craig Tribble of Ripley received a two-year, \$6300

demonstration grant, addressing the priority area of increased profitability and reduced risk.

They operate Idle Knot Farm, a small vertically-integrated dairy that produces and sells cheese directly to the public. Due to the small scale of the operation and the close customer contact, the grant will look at developing a more comprehensive waste management system that will reduce odor and better use the manure to enhance the overall intensive grazing system. A solid's separator will be used to remove the solids from the dairy waste and an irrigation system will test nutrients and then pump the remaining fluid onto pastures at the correct amount based on soil test results.

Cooperators on the project include Dr. Doug Hamilton and Dr. Mike Kizer of OSU Biosystems and Agriculture Engineering.

Robert Wall of Perkins received a one-year, \$2361 demonstration grant, for using multispecies second grazers to harvest remaining dairy paddock residues. The priority area: increase profitability and reduce risk.

The objective is to implement a "lead-follow" multispecies grazing system. Chickens in an "eggmobile" share the pasture with beef cattle, and scratch in and break up manure patties. This improves nutrient cycling and reduces parasite levels. Sheep and goats will follow the dairy herd to utilize forage the cattle do not favor.

Cooperators on this grant include Nathan Anderson, Payne County Extension agent, Don McLemore, Field Technician for Heart of America DHIA, Roger Jennings, Perkins-Tryon Vo-Ag Instructor, and Steve Hart, Langston University Goat Research.

Alan and Jonna Way of Madill received a two-year, \$7372 demonstration grant, to explore alternative marketing strategies to increase on-farm sales.

The Ways' farm is 30 tillable acres. They direct market some produce in the local area and have school groups tour the pumpkin patch in the fall. Much of the produce, however, must be shipped off-farm to other markets. They would like to sell more at the farm. The grant would establish a three-acre corn maze for children and adults. The maze would be used as a customer draw. A web site will be established to help advertise the operation. Customer numbers will be tracked to determine any change in on-farm visits and sales.

Cooperators on this grant include Steve Upson, Horticulturist at the Noble Foundation and Steve Swigert, Economist at the Noble Foundation.

Producer Grants 2000– Organic

Glen Ledbetter currently raises organic alfalfa seed near Foss for the sprouting market and is developing a pecan orchard. The pecan orchard is the focus of this \$7500 grant. Ledbetter will be using a hairy vetch to supply the pecan trees with nitrogen and will be addressing the issue of water conservation by drip irrigating the pecan trees utilizing municipal waste water. He feels pecans can offer growers a way of diversifying their income sources which should create a more sustainable farming system.

Cooperators on this two-year project include Larry McConnel, Business Development Coordinator at the Western Technology Center,

Mark Gregory, OSU Area Extension Agronomy Specialist, and Gary Bledsoe, Assistant Director of Market Development at the Oklahoma Department of Agriculture.

Jesse Snyder of Prague will be examining the use of a biological control of corn ear worm in sweet corn. Insecticidal control of corn ear worm can be costly and time-consuming. Snyder will be assessing the use of a parasitic wasp as a control for corn ear worm in this \$1950 one-year grant.

The Snyder farm and ranch is a diversified operation with cattle, wheat, corn, soybeans, peanuts, milo, sweet corn, pumpkins, and goats.

Cooperators on this project will be Dr. Warren Roberts and Jonathan Edelson at the OSU Lane Agricultural Center.

Doug Walton of Muskogee will be evaluating summer and winter annual cover crops for no-till, no-herbicide vegetable production systems.

He feels that cover crops can provide many benefits to the farm landscape including soil and water conservation, catching and accumulating nutrients, and altering weed and pest cycles. Information is currently lacking on cover crops suitable for use in a reduced-tillage system in Oklahoma. Walton currently uses organic production techniques on 1/2 acre of an 8 1/2 acre farm. Produce is marketed directly to customers at the Muskogee Farmers' Market and to a local restaurant.

Cooperators on this three-year, \$7345 grant, are Dr. Vincent Russo and Dr. Charles Webber of the OSU Lane Agricultural Center and Dr. Brian Kahn and Dr. Warren Roberts of Oklahoma State University Horticulture Department.

OALP– Oklahoma Agriculture Leadership Program– Class IX

–Michelle Stephens

Do you want to have a better understanding of Oklahoma culture and agriculture in the context of the community, the state, the country, and the world? Are you a full-time agriculture producer or do you work in agriculture? If so, then the Oklahoma Agriculture Leadership Program (OALP) is awaiting an application from you.

The OALP's main objective is to develop future leaders for Oklahoma agriculture. The OALP is open to men and women between the ages of 25 and 45 years of age, who are engaged in production agriculture or a related agriculture business. They must show a strong commitment to aspire to a leadership role to benefit Oklahoma agriculture and commit to attending all 60 days of seminars and study tours over a two-year period.

Funding for the first OALP Class came from a W.K. Kellogg foundation grant. Beginning with Class II, private contributions from individuals and organizations, support from the Oklahoma Legislature, OSU Division of Agricultural Sciences and Natural Resources and participation fees from class participants have been the sources of funding.

Class IX of the two-year Oklahoma Agriculture Leadership Program just graduated in March and the next class will be selected in July. The group is selected through an application and



Michelle Stephens, left, with OALP at Horn Canna Farm near Carnegie.

interview process.

Shortly after the selection of the 30 class IX members, all 22 men and 8 women attended the first seminar to look at leadership roles and get to know each other. The meeting highlight was the "trust-building" day spent at the popular ropes course near Stillwater, Oklahoma.

Southwestern Oklahoma was the next target for learning about diverse agriculture. The whirlwind tour took the class to areas in and around Altus, Weatherford, Hydro, Hinton and Carnegie. They toured irrigated cotton farms, cotton gins and peanut farms. A visit to a

family canna farm, established during the Great Depression, was an introduction to an alternative agriculture endeavor. Many were surprised to find an internationally known canna farm right in Oklahoma.

The next trip, hosted by the Noble Foundation, included a look at the Foundation's many research projects located at their Ardmore headquarters as well as some of their ranching operations. The group visited the Clint Williams Company, a family-owned peanut shelling and whole peanut processing company. A visit to a pecan operation included looking at their retail and whole pecan sales. The class also toured a grass-fed beef ranch where the family rancher served plenty of grass-fed beef and homemade rolls. He talked about the demand for lean beef and how his product meets that demand.

To gain a regional perspective of agriculture the group traveled by bus to Kansas City. On the way the group stopped at the regional offices of Farm Credit Services in Wichita to get a better understanding of farm credit. Upon arriving in Kansas City the class visited the Farmland Industries World headquarters, John Deere's national and international marketing group, and for fun toured the Kansas City Harley Davidson plant.

Because the federal government and its influence on agricul-

ture was the next topic of study, the group traveled to Washington, D.C., for a week of meetings. The group met with federal agriculture officials as well as lobbyists from various organizations. Many met with their congressman and all met with Senator Inhoffe. The group also toured a state-of-the-art dairy where all the methane is used to produce electricity and not allowed to escape into the environment.

Next on the agenda was a trip to Northwestern Oklahoma where the group saw everything from a small family-owned winery that was welcomed by its neighbors to large industrial swine operations that were hated by many of their neighbors.

The next month the group went to the other side of the state—southeastern Oklahoma. To gain a better understanding of the concepts of sustainable agriculture, the group visited the Kerr Center. After a visit to the ranch the group traveled to the forests of southeastern Oklahoma to view Weyerhaeuser forestry operations and poultry hatcheries.

Other trips included one to northeastern Oklahoma where the



At John Deere Marketing Division in Kansas City.

group toured the Nature Conservancy's Tallgrass Prairie Preserve and watched the buffalo roam across acres of prairie grass. The group also visited a ranching operation using goats profitably to control brush.

Two years of travel and study culminated with a two-week study tour of Argentina. Class members began preparing for the international seminar in Argentina by visiting

with native Argentines about the history of their country as well as interesting aspects of Argentine agriculture. The group looked at crop and cattle production, dairy production, the environmental regulations (or lack thereof), and the government and the impact it has on Argentine agriculture and its people. While the land was beautiful, the people friendly, and the government employees very helpful, it can be safely said that the impact of the foreign study experience helped Class IX to be even more thankful to be citizens of the great United States of America.

Most class members would agree that the Oklahoma Agriculture Leadership Program is an enriching, challenging and exciting program. All who participated made lasting friendships and valuable contacts while learning volumes about Oklahoma agriculture.

For more information on the OALP call 405-744-5132 or email bob@okstate.edu.

Stephens graduated with Class IX.



At Clint Williams Peanut company, a family-owned business in Madill.

We need your input!

Please take ten minutes and fill out this anonymous survey and return it to the Kerr Center. The return postage is paid.

Beef Producer Survey

We are conducting a beef producer survey in Oklahoma, Texas, and Kansas. The survey is part of a preliminary study of beef marketing. The Kerr Center and Oklahoma State University are studying the potential for value-added “natural beef” marketing opportunities for producers in this region. (“Natural” generally means hormone and antibiotic-free). Both producers who currently raise “natural” beef and those who do not are encouraged to fill out the survey.

Surveys of small independent beef packers and consumers, and meetings to link producers and packers will also be part of this study.

Aggregate results will be available through the Kerr Center’s web site and OSU’s food and Agriculture Products Research and Technology Center.

If you would like to be a part of future activities on natural beef marketing at the Kerr Center, please contact Eric Allenbach at 2108 E. Memorial Rd., Ste. 104, Edmond, OK 73013, 405-478-7618, or email: kcfsa@flash.net.

Thank You!

PLEASE CIRCLE YOUR RESPONSE

PLEASE RETURN BY JULY 15

1	What is your age?	a. 18-25	b. 26-32	c. 33-40	d. 41-50	e. 51-65	f. 65+
2	What is the highest level of formal education you have achieved?	a. Less than high school b. High school diploma or equivalent (GED) c. Some college d. Completed four year degree (BA or BS) e. Graduate School					
3	Are you:	a. Male	b. Female				
GENERAL MANAGEMENT							
4	What is your job title?	a. Owner-operator	b. Manager	c. Herdsman	d. Other		
5	How many years have you been raising cattle?	a. 0-2	b. 3-6	c. 7-12	d. 13-20	e. 21 -30	f. 30+
6	Are you involved in a cow calf or stocker operation?	a. Cow-calf	b. Stocker	c. Both			
7	Is your cowherd purebred or mainly crossbred?	a. Purebred	b. Crossbred				
8	What breed or breeds of cattle are represented in your cow herd?	a. Hereford	b. Angus	c. Limousin	d. Charlais	e. Brangus	
		f. Simmental	g. Brahman	h. Other (Specify _____)			
9	What breed or breeds of sires are primarily used in your operation?	a. Hereford	b. Angus	c. Limousin	d. Charlais	e. Brangus	
		f. Simmental	g. Brahman	h. Other (Specify _____)			
10	What is the size of your cowherd?	a. 1-50	b. 51- 100	c. 101- 200	d. 201- 500	e. 501+	

11	When is your calving season?	a) Spring	b) Fall											
12	Do you implant your calves with growth hormones?	a) Yes	b) No											
MARKETING														
13	What are the primary methods of marketing your calves or yearlings?	a) Auction market e) Direct marketing	b) Order buyer f) Private treaty	c) Video auction g) Other (Specify _____)	d) Forward contract									
14	Have you ever provided the buyer of your calves the following information?	a) Calf vaccination history	Yes <input type="checkbox"/>	No <input type="checkbox"/>	b) Implant history	Yes <input type="checkbox"/>	No <input type="checkbox"/>	c) Past feedlot performance	Yes <input type="checkbox"/>	No <input type="checkbox"/>	d) Past carcass performance	Yes <input type="checkbox"/>	No <input type="checkbox"/>	e) Other information: _____
15	Have you ever received the following information back on any of your calves?	a) Feedlot performance (gain, feed efficiency, sickness)	Yes <input type="checkbox"/>	No <input type="checkbox"/>	b) Carcass data (quality grade, yield grade, carcass weight)	Yes <input type="checkbox"/>	No <input type="checkbox"/>							
16	Have you ever participated in a marketing alliance?	a) Yes	b) No	(If response is no, skip to section 3 of this question.)										
		1. If yes, which alliance did you participate in? _____												
		2. Did you receive added value through participation?		Yes <input type="checkbox"/>	No <input type="checkbox"/>									
		3. If you haven't been involved in an alliance, would you be interested in participating in one?		Yes <input type="checkbox"/>	No <input type="checkbox"/>									
17	Are you satisfied with your current cattle marketing strategies?	a) Yes	b) No											
18	Would you be interested in looking at alternative methods of marketing your cattle?	a) Yes	b) No	c) Possibly										
19	How many cattle do you sell annually as a stocker/grower, backgrounder or preconditioner?	a) 1-60	b) 61-200	c) 201-500	d) 501-1000	e) more than 1000								

BEEF PRODUCER SURVEY

(Retained ownership in questions 20-22 means continued ownership of cattle through the final finishing phase before slaughter.)

20	Did you retain ownership of your cattle last year through the final finishing phase?	a) Yes b) No (If no, skip to question 24)
21	How many years in the last 5 years did you retain ownership?	a) 1 b) 2 c) 3 d) 4 e) 5 f) None
22	<i>(Only for producers who answered yes to question 20 on retained ownership.)</i>	
22	What percentage of the total inventory of market calves did you retain ownership of last year?	a) 0-20% b) 21-40% c) 41-60% d) 61-80% e) 81-100%
23	Did you purchase cattle last year to feed to slaughter weight?	a) Yes b) No If yes, how many? a) 1-60 b) 61-200 c) 201-500 d) 501-1000 e) more than 1000
24	Do you feed your own cattle to slaughter weight?	a) Yes b) No
25	<i>(In questions 25-29, direct marketing is defined as the beef producer selling a processed meat product directly to a consumer, restaurant, etc.)</i>	
25	Do you sell any cattle by direct marketing?	a) Yes b) No (If the response is no, skip to question 30)
26	<i>(If Yes)</i> How many head per year?	_____
27	How much time do you spend each month, on the average, working on a direct marketing plan?	a) 0 b) 1-2 days c) 3-5 days d) 6-9 days e) 10 days +
28	Is your primary direct market:	a) local (1-20 miles from home) or b) regional (21+ miles)?
29	What is your primary method of advertising for direct marketing?	a) Referral b) Telephone contact c) Billboards d) Radio e) Newspapers f) Internet g) Other _____ Please rank according to success of method with 1 being most successful, 7 least successful. a) Referral _____ b) Telephone contact _____ c) Billboards _____ d) Radio _____ e) Newspapers _____ f) Internet _____ g) Other _____

30	Have you ever thought of selling beef through small meat processors?	a) Yes b) No
31	How far away is the closest meat processor in your area?	a) Less than 30 miles b) 31-60 miles c) Greater than 60 miles.
LAND AND CROPS		
32	What types of crop production are you currently involved in?	a) Wheat b) Corn c) Soybeans d) Cotton e) Peanuts f) Sorghum g) Oats h) Other_____
33	What types of hay production are you involved in?	a) Alfalfa b) Cane c) Brome d) Bermuda e) Native grass f) Other_____
34	How many acres of land do you lease for livestock production?	a) 1-500 b) 501-1000 c) 1001-2000 d) 2001- 5000 e) 5000+ f) none
35	What percentage of total leased land is in crops and grass?	a) Crops_____ b) Grass_____
36	How many acres of land do you own that is used primarily for livestock production?	a) 1-500 b) 501-1000 c) 1001-2000 d) 2001- 5000 e) 5000+ f) none
37	What percentage of total owned land is in crops and grass?	a) Crops_____ b) Grass_____
38	Do you have additional comments that you would like to share about this survey and its questions?	

Please fold here, staple or tape and return to the Kerr Center by July 15.

KERR CENTER FOR SUSTAINABLE AGRICULTURE
P.O. BOX 588
POTEAU, OK 74953

BUSINESS REPLY MAIL FIRST-CLASS MAIL PERMIT NO. 200 POTEAU, OK
--

NO POSTAGE NECESSARY IF MAILED IN THE UNITED STATES

Genetic Goal Setting

—Brian Freking

If I could sum up our cattle selection criteria into one phrase it would have to be: cow adaptability and carcass acceptability. Our whole program revolves around this basis.

There are probably thousands of ways to raise cattle and each person may be successful because of different aspects of their training and management. Some people are great at marketing, while others have a knack for identifying sick animal early. Some people do a great job with their natural resources such as water, soil, and harvesting sunlight through forages. The true sustainable producers for the next millennium will probably have to become better at all of these management aspects to survive.

How do I select bulls or females based on my opening remarks? Do I use EPDs or performance records? Look at pedigrees? First, you need to write goals to make sure you have a destination in mind. You need to have both production goals and financial goals in writing. This way if your goal is to wean an animal that weighs 600 lbs or 400 lbs at some standard date of calf age you can measure if the cost of raising a bigger animal is worth it.

When I took over the research herd here, my first thought was to find out where are we now. The best tool available to accomplish a baseline measurement of where our ranch was at was to run a

Standardized Performance Analysis (SPA). This gave me information for critical performance traits and a dollar value associated with it.

Rather than get into our numbers I would like to share which categories seem to be synonymous with the most profitable producers. Production categories include these items: pregnancy percentage, weaning percentage,

Our whole
program
revolves around
cow adaptability
and carcass
acceptability

lbs. feed/cow, and lbs. weaned/cow exposed. Cost categories include: feed cost/cow, grazing cost/cow, and total cost/cow. Cow-calf production is relatively low on return on investment.

Once we have these numbers we can now formulate goals and implement selection practices that will lead us to our goals. You can also measure improvement by focusing on areas that need the biggest improvements.

The basic goal of selection is to develop superior genotypes for future production and market requirements. Too often, temporary

fads and fancies take precedence over practical, economically sound criteria. Many generations of selection toward consistent goals are required for appreciable success, so the challenge is to identify the requirements of the commercial industry ten years from now.

Our market goal has been to match a particular grid with premiums paid for approximately 60% choice grade or better and 60% yield grade 1&2. This market goal seems to be a trend that consumers tend to like over the long term. Therefore, carcass acceptability for us is to meet that grid. Participating in some sort of carcass feedback program is a must to evaluate your goals.

Our selection for cow adaptability is based on these economic traits: fertility or fleshing ability, resistance to disease and parasites, and hybrid vigor. This is best accomplished by long-term selection of animals within a closed herd. Once a certain level is achieved it may require selection from outside the herd to make further improvements.

Obviously, not all breeders or breeds should select for the same traits. Animal breeders can achieve this goal of cow adaptability and carcass acceptability by using breed complementarity and heterosis in carefully designed crossbreeding programs.

Join Brian for a pasture management clinic August 11. See back page for more details.

Farmers' Market Field Day

—Alan Ware

Area market gardeners and farmers recently had the opportunity to learn more about growing for Oklahoma farmers' markets at the annual Oklahoma Farmers' Market Workshop. Participants toured two well-known and respected family farms on April 1. The CD3 Farm is owned and operated by Cindy and Daryl Bailey of Bristow. The Shanks farm is owned and operated by Debbie and Nathan Shanks of Leonard. The tours were sponsored by the Cherry St. Farmers' Market, Muskogee Farmers' Market, Oklahoma Cooperative Extension, and The Kerr Center for Sustainable Agriculture.

The purpose of the annual field day is to expose potential farmers and market gardeners to successful operations that participate in farmers' markets across the state. This effort is made to help recruit new members to many of the growing markets in Oklahoma. It is also a time for established market growers to come together to exchange ideas and experiences from the previous year.

This year's event was also an opportunity to promote the newly formed Oklahoma Farmers' Market Alliance. This organization was formed to give Oklahoma farmers' markets a united voice in helping to improve farmers' markets in the state. Each member market pays an annual membership which gives that market association a voice in



the alliance. Proceeds from the workshop were to benefit the newly formed organization.

The rainy day did not discourage participants as over 100 people came to CD3 farm. The Baileys split the crowd into groups to tour different areas of the farm. During the tours, participants saw many components of this diversified farm. The different enterprises include gourmet vegetable production, shiitake mushrooms, herbs, perennial flowers, and value-added gourmet products. Daryl took his group to the shiitake mushroom laying yard and explained cultiva-

tion techniques for growing shiitake mushrooms. He also demonstrated how to inoculate a shiitake log. Cindy took participants on a tour of their greenhouses and gardens. She explained the many challenges of growing vegetables and the successes during her first few years of production. A person could also sample the Shiitake Mushroom Tortilla Soup that the Baileys market under a different label called Redbud Gourmet.

In the afternoon, the program moved to the Shanks' farm. Although the rain kept coming down the crowd didn't shrink much. Fortunately, the Shanks had room in one of their

greenhouses to accommodate everyone. Debbie and Nathan Shanks are the second generation to farm on this land. They grow a wide range of fruit and vegetables, marketed at the Cherry Street Farmers' Market. The Shanks have two large greenhouses in production. One greenhouse is used for producing early tomatoes, cucumbers, spinach, and lettuce for the market. The other greenhouse is used for seedling production for field planting. The Shanks' discussed their operation and the challenges of finding equipment to meet the specific needs of each crop. They explained that they also have difficulty in finding equipment that is size-appropriate for their operation.

Both farm tours were informative and educational. A common thread that tied these two farms together was that the people running these farms loved what they were doing. These are family operations with everyone pitching in to make the farm a success. Another similarity is that these farmers have chosen a lifestyle that isn't always the easiest, but the rewards are many. During her presentation, Debbie Shanks commented, "It is especially rewarding when someone comes back to your sales booth and comments that the tomato they bought from you last week was the best they had ever eaten. That is when it is all worth it."

If you are interested in learning more about farmers' markets, or the Oklahoma Farmers' Market Alliance, contact the Kerr Center for Sustainable Agriculture or Jason Harvey at the Oklahoma Department of Agriculture (405) - 522-5563 for more information.

Beyond Red Tomatoes: Exploring Heirlooms

—Alan Ware

The Kerr Center Horticulture Farm will host an "evening walk" through the farm on Thursday, July 20th, from 6:30 p.m. until dark.

The Farm is currently investigating a number of different crops for suitability to Oklahoma. All aspects of organic vegetable production, as well as blueberry and muscadine grape production will be covered on the walk. Also featured will be variety trials of heirloom vegetables.

The presentations will be informal and will include plenty of time for grower questions. New this season on the Farm is the variety trial of heirloom vegetables. Heirloom vegetables are open-pollinated varieties that were bred prior to the 1950s. Many of these varieties have been grown for over 100 years. They often look different than today's hybrids and claim superior taste. Heirloom vegetables are becoming very popular with consumers and are "hot" at farmers' markets. Growing and buying heirlooms helps preserve our genetic heritage.

One example that visitors will see is a dark purple tomato called *Cherokee Purple*, originally cultivated, as its name implies, by the Cherokees. It has a smoky flavor, with fruit weighing 8-12 oz. Another tomato we are trying is *Yellow Stuffer*. This small tomato looks like a bell pepper. It can be used for stuffing or for adding color in a salad.

One of the most unusual watermelons in the trial is called *Moon and Stars*. It has a dark green skin with one large yellow spot and many smaller yellow dots. It was very popular in the 1930s.

Yield, insect and disease resistance, and overall suitability to Oklahoma are being monitored on these plots. Squash, cantaloupe, okra, and beans are also being tested. The unique colors and shapes of these different vegetables will be on display and also be available for tasting!



In addition to heirloom vegetables, the Farm is investigating a blueberry variety known as *Ozark Blue* that was released from the University of Arkansas a few years ago. It has shown great potential for areas south of I-40 and east of I-35.

Come and join us for an enjoyable and educational evening exploring heirloom vegetable production and small fruits in Oklahoma.

Want to taste an heirloom tomato? The Muskogee Farmers Market will have them for sale this summer. Check your local market for other heirloom veggies.



Just In Time: Growing Grass A New Way

– Maura McDermott

Timing is everything. Farmers know how true that is. For rancher Kim Barker, however, the old adage has a special meaning. For the past eleven years he has been practicing cell grazing (also known as planned or management intensive grazing) on his 1500 acres of grass near Waynoka in northwest Oklahoma. With cell grazing, the key to success is timing: managing the amount of time the cows spend grazing an area, and the time that area is then allowed to "rest" and regrow.

Keeping pastures healthy and growing profitable beef cattle is always a challenge in country that normally gets about 22 inches of rain per year, on a ranch where the soil ranges from sand to tight red clay. But cell grazing works, says Barker.

He is able to stock his cattle at about double the rate of the area. With cell grazing, "you actually produce more forage," he says. He has also been able to drastically cut expenses for inputs. He doesn't fertilize his pastures, and he doesn't spray them for weeds. The cattle wear no fly tags, do not have hormone implants, and he doesn't worm them. They get very little mineral supplement. So does he have poor-looking cattle and weedy pastures? The opposite, in fact, is true. His pastures and cattle are healthier than ever, and Barker is making more profit. All thanks to

cell grazing.

Barker first became interested in the approach in 1988, when he heard cell grazing guru Allan Savory speak in Woodward. Savory was a game biologist who developed his principles of "holistic resource management" after seeing the land on game preserves in Africa be mismanaged. While it may seem a far piece from Africa to Oklahoma, the problems Savory described "fit in

"In my lifetime,
I've seen pastures
deteriorate from
conventional
grazing."

perfectly with what I was seeing out on the land," Barker recalls. The ranch he has converted to cell grazing is the same one where he grew up. Cattle grazed the pastures continuously, going where they chose, and eating the most palatable plants down until they eventually declined and other less palatable species took over. Although continuous grazing is the most common grazing system in Oklahoma, it contributes to poor pastures, Barker believes. "I knew what was wrong before I knew what

was right," he recalls. "In my lifetime, I've seen pastures deteriorate from conventional grazing." The solution was deceptively simple: manage grazing so you have a healthier plant community.

But how exactly? Barker decided to find out, and ended up reading Savory's 500 page book *Holistic Resource Management*, by now five or six times. He began subscribing to the *Stockman Grass Farmer*, the newspaper whose name sums up the approach that ranchers like Barker are taking. In 1990, Barker was a member of the Oklahoma Ag Leadership Program (see p. 5) where he was encouraged by meeting a couple of others doing cell grazing.

Barker's approach was to read about it, then try it. Cell grazing requires that pastures be broken into smaller units— cells or paddocks. The cattle are moved from one paddock to another when the rancher observes that the forage has been eaten down to a certain level. Then the grass is allowed to rest, and grow again without disturbance. The amount of time the grass is grazed and rested varies according to season, rainfall, size of herd, and other factors.

Around Waynoka, Barker was a lone ranger in trying cell grazing— none of his neighbors had tried it, so there were no nearby models to

follow, and he admits making a lot of mistakes. He persevered and today sees many positive changes to his land. More water is being absorbed—runoff into one pond virtually halted. There is more litter covering the ground. The plant communities in some of his pastures have changed dramatically. In one area where the soil was mostly sand (Little Sahara State Park is only seven miles away), cell grazing changed the plant makeup from lower quality forages like sand burs, crab grass, and three awn grass to little bluestem and other higher quality perennial grasses. With cell grazing, "you can get animals to turn land into anything you want it to be," he believes. The secret is management.

Barker has a cow/calf herd that varies between 75 and 100 head and this year has 300 stocker steers as well. Barker credits cell grazing for his improved forage base, which in turn allows him to grow these stocker steers successfully, with a weight gain of 1.6 lbs per day.

Barker claims cell grazing can work on ranches of various sizes in various locations. But it is "not a cookie cutter deal." Ranchers cannot just take his numbers—for example, he has 720 acres divided into 56 paddocks—and just apply them wholesale to their own operations. But they can apply the basic principles of cell grazing (and holistic resource management) to their own situations and be successful.

At times Barker has found it difficult to convince others of the soundness of his approach, even though, he observes, they may be going broke following conventional advice. From the road, Barker's place may not look that different from the average. But if a curious



Kim Barker, (l) and Charles Griffith compare notes.

rancher will get out of the pickup and walk Barker's pastures, he/she can easily see the difference.

Learning to do cell grazing is not that hard, Barker says, once you understand the basic cycles—water, mineral, succession and energy. The most common misconception people have is that his approach is terribly time consuming. Not so. He moves his stocker steers every two days and it takes him fifteen minutes. They hear him coming and are ready to go, he says. He knows of a Kansas study where the rancher, who used both continuous and cell grazing, kept

strict track of his time. He spent less than half the time (per head) on the cell grazing.

The biggest investment comes at the beginning, in time spent learning about the approach and in building fence to create the paddocks. The electric fence is low maintenance—Barker "rides the hot wires" twice a year. He now says he has more free time than at any time in his life.

Barker thinks that any rancher, whether full-time or part-time, can successfully manage a cell grazing system. That is, if they get the timing right.

Cell Grazing Field Day

Kim Barker will hold a field day at his ranch near Waynoka on Saturday, July 22. Also on hand will be Noble Foundation grazing specialist Charles Griffith and Bennington rancher and grazing consultant Walt Davis. The focus will be on getting started in cell grazing. Barker and friends will give attendees specific tips on getting started. Their goal, says Barker, is to help people avoid the most common mistakes. Visitors will also tour the ranch and view the new watering points that Barker put in with the help of a 1998 Kerr Center producer grant. The new watering points will help decrease erosion on a lane the cattle used to follow to a pond and improve nutrient cycling in the paddocks. Barker also fenced out a pond, thereby improving its water quality.

The program will begin at 2 p.m., and the cost is \$20. Call ahead – 580-824-9011 – to reserve a hamburger, to be served that evening.

Grass and Goats: Summer and Fall Field Days

(For more information on these events contact the Kerr Center at 918-647-9123.)

JULY 22- Field Day at Kim Barker's Waynoka Ranch. Focus on management-intensive grazing in western Oklahoma. See p.14-15 For more details.

AUG. 11- Stockpiling forage before winter so as to reduce the need for hay will be the focus of a Pasture Management Clinic August 11 at the Kerr Center. Livestock production specialist Brian Freking will lead the evening walk and discuss the Kerr Center's rotational grazing system.

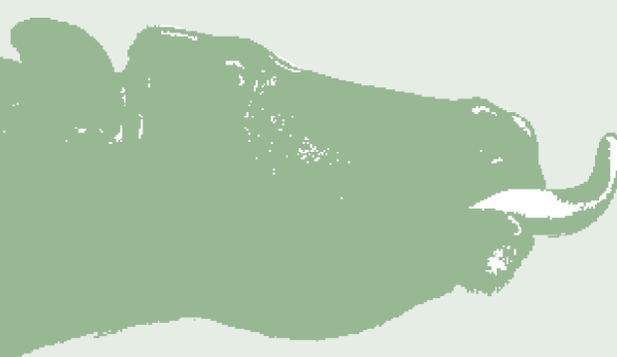


OCT. 7- Find out about a large-scale goat operation (1200 nannies) at the Kelley Ranch Field Day Oct. 7. Ranch manager Wallace Olson will share his experiences raising goats and the results of his research into goat impact on wildlife habitat. The research has been supported by a producer grant from the Kerr Center.

NOVEMBER – Goat School sponsored by the Kerr Center. Learn about the production and care of goats, marketing options, goats for brush control and stocking rates. Time and place to be set.

Kerr Center for Sustainable Agriculture
P.O. Box 588
Poteau, OK 74953

Nonprofit Organization
U.S. Postage
PAID
Poteau, Ok 74953
PERMIT No. 64



**Interested in getting a premium for your beef?
Take our Beef Producer Survey on page 7.**



Printed on recycled paper

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.

PROGRAMS INCLUDE:

- Oklahoma Producer Grants
- The Stewardship Farm
- Rural Development and Public Policy
- Communications/Education
- Vero Beach Research Station
- Overstreet-Kerr Historical Farm

STAFF:

James E. Horne, *President and CEO*
Robert Adair, Jr. *Director,*

Vero Beach Research Station
Eric Allenbach, *Public Policy Analyst*
Jim Combs, *Curator, Overstreet-Kerr Historical Farm*

Brian Freking, *Livestock Production Specialist*
Manjula Guru, *Agricultural Policy Analyst*
Maura McDermott, *Communications Director*
David Redhage, *Natural Resources Economist*
Liz Speake, *Communications Assistant*
Michelle Stephens, *Director,*
Public Policy/ Rural Development
Alan Ware, *Director, Producer Grant Program/Stewardship Farm*

OFFICE: Barbara Chester, *Corporate Secretary;*
Lena Moore, *Secretary/Webpage;*
Carol Vise, *Office Coordinator*
Ann Ware, *Business Manager*

INTERNS

Janell Smalts, Kat Metheny

STEWARDSHIP FARM: Simon Billy, Charlie Kimble,
Andy Makovy, Scott Phillips

VERO BEACH RESEARCH STATION:

Dave Davis, *Citrus Horticulturist,* Nik Mehta,
Research Scientist, Bev Norquist, *Secretary*

OVERSTREET-KERR HISTORICAL FARM:

Jeremy Henson, *Grounds/Maintenance*

For further information contact us at:

P.O. Box 588, Poteau, OK 74953
918/647-9123 phone, 918/647-8712 fax
mailbox@kerrcenter.com, e-mail
www.kerrcenter.com on the web

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

Copyright 2000 by the Kerr Center for Sustainable Agriculture. Newsletter articles may be reprinted if credit is given and a copy is sent to the newsletter editor.

Design by Argus DesignWorks

New Kerr Center Fact Sheets



- **"72 Ways to Make Agriculture Sustainable"**
by James E. Horne, PhD. and Maura McDermott
(checklist of specific sustainable agriculture methods)
- **Oklahoma Producer Grants 2000**
(Describes this year's recipients)
Also available: 1998 and 1999 fact sheets
- **Riparian Area Management Techniques** by David Redhage
(Overview of experiences on the Kerr Center Stewardship Farm.
Includes information on fencing riparian areas, limited-access watering
(pond watering ramp and floating fence) and stream crossing points.)
- **New Use for Old Tires** by Will Lathrop, revised by Brian Freking
(How to recycle used tires into sturdy cattle watering troughs— types of
tires to use, installation tips)
- **Management Intensive Grazing: An Overview**
by Will Lathrop and Brian Freking
(Advantages of this method of grazing over continuous grazing)
- **Management Intensive Grazing** by Will Lathrop and Brian Freking
(Definitions, comparison with continuous grazing, forage utilization
rates, grazing and rest period calculation, stock density calculation,
Kerr Center experience)
- **An Efficient Hay Feeding System** by Brian Freking
(Description of the spaced-bale feeding system used at the Kerr Center,
where hay bales are left in the pastures during the feeding season)

Other Fact Sheets of Interest

- **Cover Crops for Soil Improvement in Horticultural Crops**
by Alan Ware
(Why plant cover crops; tables covering planting instructions
and adaptability for 32 crops)
- **Pasture Legumes: Establishment and Management** by Chris Agee
(Why plant pasture legumes, site prep, lime, fertilization and weed
control, selection, inoculation, planting, estimating establishment costs,
grazing management, companion grasses, winter annual legumes,
summer annual legumes, perennial legumes, pasture surveying)

These fact sheets are free, with a fifty-cent shipping and handling charge. Contact the Kerr Center for a publication order form or to order in bulk. See a list/order form of the numerous Kerr Center publications at www.kerrcenter.com.