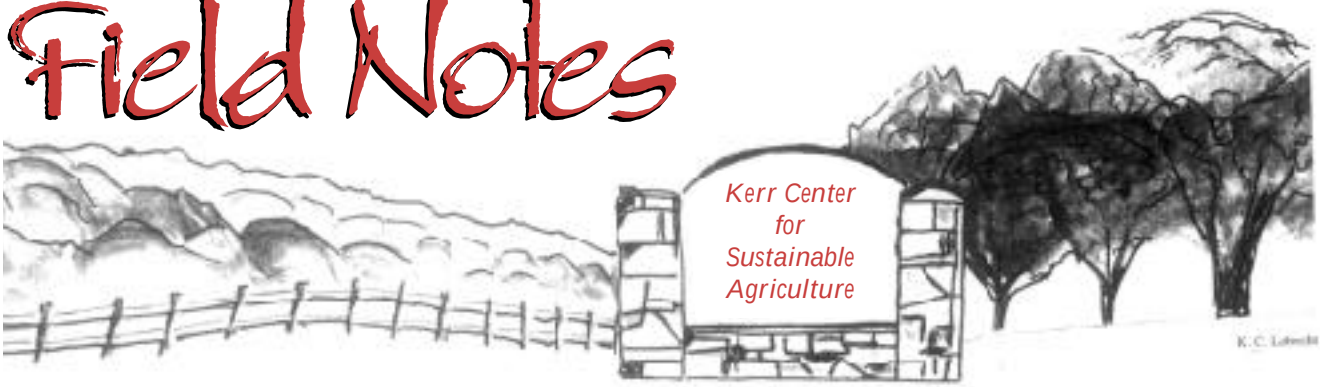
Field Notes



Kerr Center for Sustainable Agriculture — Vol. 25, #3 • Fall 1999

Join Us for Fall Events

The Kerr Center is holding a number of fun and informative public events this fall.

On October 8 and 9, the Overstreet-Kerr Historical Farm will be the site of the 8th annual **Fall Farm-Fest** (see page 14). On Thursday, October 21, farmers and ranchers are invited to the annual **Stewardship Farm Field Day** (see page 13). Research updates, a tour of ranch projects, a barbecue dinner, and a producer panel are highlights. On Saturday, October 23, at 1:30, the **Kerr Center cattle sale** will be held at the LeFlore County livestock barn in Wister (see back page).

Then in early November, the Kerr Center will host the Oklahoma legislature's **Special Committee on the Economic Status of Agriculture**. The committee has been holding public hearings this year seeking input from experts and citizens on the problems that face the agricultural industry, and what can be done to solve them. At an earlier hearing at the state capitol, Kerr Center president Jim Horne testified on the "Causes, Effects, and Solutions to Perennial Low Prices and Returns in Agriculture."

The twenty-member committee is chaired by Senator Robert Kerr of Lawton. Representative Kenneth Corn of Poteau is also a member. The Oklahoma Commissioner of Agriculture and representatives from the Oklahoma Farmers Union and Farm Bureau are also members.

The November hearing will focus on biotechnology. Speakers knowledgeable about this controversial topic will address the committee. The public is invited to attend and offer questions and comments. The exact date and location have not yet been set. Watch your newspaper for an announcement, contact Senator Kerr's office at 405-524-0126, or the Kerr Center at 918-647-9123.

Inside this issue of *Field Notes*

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 Horne, *President*
Robert Adair, Jr. *Director, Vero Beach Research Station*
Eric Allenbach, *Public Policy Analyst*
Jim Combs, *Curator, Overstreet-Kerr Historical Farm*
Lloyd Faulkner, *Assistant to the President*
Brian Freking, *Livestock Production Specialist*
Manjula Guru, *Agricultural Policy Analyst*
Maura McDermott, *Communications Director*
David Redhage, *Natural Resources Economist*
Liz Speake, *Communications/Education Assistant*
Michelle Stephens, *Director, Public Policy/ Rural Development*
Alan Ware, *Director, Producer Grant Program/Stewardship Farm*

OFFICE: Barbara Chester, *corporate secretary;* Lena Moore, *secretary/receptionist/ webpage;* Ann Ware, *business manager*

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

VERO BEACH RESEARCH STATION: Dave Davis, Citrus Horticulturist, 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. We welcome feedback and news of sustainable agriculture events and products. Address correspondence to: Maura McDermott, editor.

Design by Argus DesignWorks

from Images of a Past: No Man's Land

(Interviews with the settlers of the Oklahoma panhandle)

By Nancy Laughlin Leonard

"All of us helped in our garden. We grew roastin' ears, lima beans, butter beans, black-eyed peas, potatoes, peaches, melons. Just everythin' We had one of them separators and got 17 cents a pound for butter fat. Eggs would bring 10 cents a dozen. Once a week we loaded up what we grew and took it to town to sell."

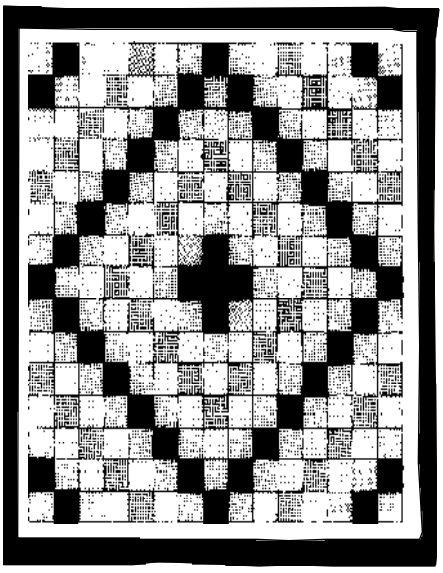
– Tal Redimer

"We had two fourteen foot rooms when I was growin' up. One had a floor and one didn't. We sewed rags and wound 'em in balls. There was a Mrs. Wright that had a carpet-weaving machine. She wove us twenty-five yards of carpet from the rag balls, then my mother put it together with twine....My mother put three things down. We had a field of corn, so we had that pile of corn shucks. She put them on the floor and then she put down straw, then paper. She'd put this rag carpet over all of that. My father laid a frame of boards just about two inches wide all around the edge of the room. Boy, that made a pretty room. Then, she went to Montgomery Ward and got paper and papered that old gyp wall. It got to be kind of crumbly before she got the paper up. The paper was a pretty green with red and some other colors in it. She hung that herself. People would come in and say 'Oh, isn't it pretty in here.' Mama had quilts and things like that and her beds were made up pretty."

– Alice Hendricks

"When I was eleven, I went right in the fields with the men, kept right up with them. A boy learned to do things pretty young. That's all the fun there is in life is learnin' somethin'."

– Tom Lemmons



U.S. Trade Policy Should Benefit Family Farmers

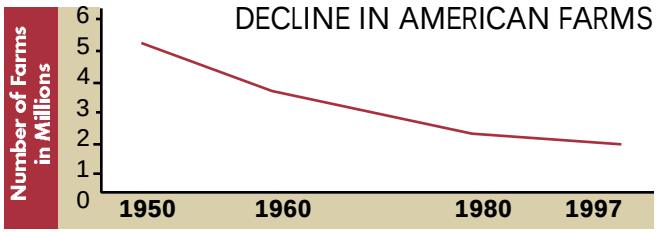
Agriculture Secretary Dan Glickman and U.S. Trade Representative Charlene Barshefsky announced on May 4, 1999, that the US Department of Agriculture (USDA) and the Office of United States Trade Representative (USTR) would hold 11 public listening sessions to solicit public comment on agricultural trade issues.

Listening sessions were held around the country throughout the months of June and July. These sessions were organized to give the USDA and USTR officials an opportunity to outline general approaches for the 3rd Ministerial Meeting in Seattle, Washington, scheduled for November 30th - December 3rd, and for the ensuing World Trade Organization (WTO) negotiations in early 2000, when new talks are due to start on agriculture and services and possibly a range of other issues.

The WTO came into being in 1995, as the successor to the General Agreement on Tariffs and Trade (GATT) which had been established in the wake of the Second World War. Today, the WTO is the only international organization dealing with the global rules of trade between nations. Its main function is to ensure that trade flows as smoothly, predictably and freely as possible.

The session for Oklahoma, Texas, Louisiana, and New Mexico was held on July 8th in Austin, in the Texas state capitol. Twenty-seven groups testified. The Kerr Center was the only testifier from Oklahoma and the only one to speak out openly about the interrelationship of U.S. agricultural and trade policies, the potential dangers of biotechnology for American family farmers, and why U.S. policies may not be helping American farmers..

Following is the testimony: "The Inseparable Trade and Agricultural Policy" written by Kerr Center president James Horne and agricultural policy analyst Manjula Guru.



Introduction

A country's trade and agricultural policies are interlinked, and one cannot separate the two. The purpose behind major agricultural policy decisions in the U.S. such as allotments, subsidies, supply management, and such other tools, is not just to balance supply and demand and stabilize net farm income, but is in fact also to increase U.S. trade by increasing exports. And it is for this reason that trade policy should be made to explicitly reflect not just the costs of production of commodities, but also hidden costs such as degradation of natural resources. Degradation may occur in the form of soil erosion, groundwater depletion and pollution. Furthermore, industrial agriculture contributes to global warming, air pollution, and loss of biodiversity through monoculture production systems and confined animal feeding operations.

Impact of U.S. Trade Policy on the Structure of Agriculture

Trade policy must take into account its effect on the structure of agriculture in the U.S. If policy favors the continued expansion of the industrial model of agriculture, then we will have fewer family farmers, less stewardship of natural resources, and declining rural communities. Food security and quality of life issues will accelerate as significant problems for our country.

Historically, the result of farm policy was consolidation, rural community decline, and the price of subsidies being bid into the price of farmland. This was the era of the vanishing farm. In 1950 there were 5.3 million farms, by 1960 down to 3.7 million, by 1980 2.4 million, and in 1997 about 2 million. In short, 62% of American farms have disappeared since 1950, or in other words, in the last 20 years America has lost 300,000 farms. While many believe that we have an efficient agriculture system, the truth is that the price of commodities such as wheat are still at 1960 levels. Producing surpluses with only the hope of good export markets is not rational in terms of resource allocations.

There is clear evidence of concentration in farming

and agribusiness. Today, less than 20% of the largest farms in the U.S. are responsible for more than 80% of the total production. The largest broiler operations account for 97% of sales nationwide. Less than 4% of the largest farms produce 66% of vegetables, sweet corn and melons. In the meat packing industry, the four largest firms control more than 80% of steers, heifers and boxed beef. In grain the four largest firms control 24% of the total bushels produced and 39% of the grain elevators.

The most recent census report showed that 3.6% of the 1.9 million U.S. farms in 1997— which amounts to about 68,400— earned 57% of all farm receipts. Even if farmers use the very best management practices in producing food, and the most sophisticated marketing techniques, such as the use of futures and options, it is not enough— they cannot even come close to negating the effect of a handful of firms controlling the market. Export policy and trade policy often favors these large corporate entities rather than the nation's family farms. Trade policy also affects the structure and type of agriculture in the countries we are exporting to. In those countries that are developing, is it right to encourage monoculture and factory styles of production and the displacement of indigenous populations from rural to urban areas? We may not be thanked for this assistance in the years to come.

Trade Policy Should Work for American Farmers Not Against Them

The aim of trade policy should be to benefit American farm families and not to reflect the profit maximization goals of a handful of corporate entities that control virtually all of the beef, pork, and poultry packing plants, confined animal production units, grain trade, and vegetable producers and processors.

Trade policy must reflect the highest of American values and standards. Agricultural exports, while helpful, are not the solution to agriculture problems of persistent low returns and food security issues, such as putting too much power in the hands of vertically integrated companies. When farms disappear so do the families that farm them. The loss of farmers and the resultant structure puts communities in turmoil. At risk is the loss of more family farms to be replaced by corporate agriculture. The corporate structure of confined animal operations is taking away from farmers the right to produce using their methods, and are essentially making farmers serfs on their own land. Agriculture and trade policy often sends the wrong signals to farmers about how much and what to produce. Embargoes destroy the best of planning.

Trade policy must take into account its effect on the structure of agriculture in the U.S.

In a similar way, agribusinesses are assuming greater control of production agriculture. Agribusinesses are developing genetically-modified seed that the farmer not only has to purchase, but also has to agree to sell back to the same company. Corporate-owned operations like these are growing at a staggering rate and few are looking at the downside of such technologies. The current trend toward monopoly in the US agricultural industry is undoing family farms by destroying competition, and along with them rural and sustainable America.

Trade and agricultural policies must be linked to ensure that they are not working to the other's disadvantage and they are not counter to other U.S. initiatives that seek to reduce pesticide usage. In this respect, we must phase out imports of food from countries that have policies that are counter to our policies. Allowing other countries to export to us with unfair labor practices also puts American farmers at a disadvantage competitively and furthermore encourages the exploitation of workers in other countries.

The U.S. should not allow the importation of any food products that are grown with chemicals banned in the U.S. as they reduce costs of production, thus allowing other countries an unfair competitive advantage. Also, this practice endangers the health of Americans, particularly those that are least able to speak for themselves, such as infants, the elderly, the ill and the poor.

Standardized labels stating country of origin, or whether food has been genetically modified, irradiated, or grown organically should be required for products coming into this country.

U.S. Trade Policy and its Effect on the Environment

Trade polices should aim to develop a national accounting system that takes into account the cost of degradation of natural and human resources, as well as the direct cost of production. Unfortunately, policy often does not account for the true or total cost of agricultural production. What gets counted are those resources that are expended, while others are ignored, partly because it is very difficult to assign values. Social costs associated with agriculture and the loss of rural communities represent true costs of our industrialized system of food production.

In industrial agriculture today, profit margins are low and risk is high, so maximum production is paramount. These factors have led farmers to adopt farming methods that increase production but may cause soil erosion or jeopardize the biological functioning of the soil. Examples include the increasing use of pesticides and fertilizers to overcome the effects of a disrupted ecosystem from overuse of pesticides, and substituting synthetic fertilizers to mask the loss of organic matter in the soil. Farmers have followed the practice called monoculture in order to take advantage of government programs and use specialized machinery. It is efficient— like making the same item in a factory is efficient— the machinery is ready, the routine is known, and the markets are there. However it depletes the soil of its life and health, increases erosion, and decreases biological diversity.

The drive to increase exports and hence for increases in production has resulted in bigger farms becoming the norm. Big farms demand big, high horsepower tractors and heavy farm equipment. As they roll across the fields their weight compacts the soil, taking out air spaces, which decreases the capacity of the soil to hold water. In turn this increases runoff and erosion. In addition, the financial pressure on the few big farmers to increase their acreage has led to farmers being responsible for more land than they can manage in a sustainable way.

Conclusion and Suggestions

1. Trade policies should not be structured to use food as a weapon against the poor in order to achieve military or governmental goals in other countries.
2. Trade policy should be focused on ensuring that the needs and not just the wants of Americans are met in such ways that we ensure the sustainability of our food system and the natural resources upon which our system depends, with fairness, consideration, and compassion for all people who work the land.
3. Trade and agriculture policy should use total cost accounting.
4. Policy should be examined to ensure that the benefits of such policies are distributed evenly to American taxpayers and to those rank-and-file workers farming our land.

Do Rural Towns Need Corporate Hogs?

Bringing Home the Bacon?, The Myth of the Role of Corporate Hog Farming in Rural Revitalization, has just been released by the Kerr Center. It is based upon research conducted by the North Central Regional Center for Rural Development at Iowa State University, under the direction of Dr. Cornelia Butler Flora.

Information in the report will help rural communities in Oklahoma and throughout the United States respond intelligently and appropriately when faced with rural development options. The report, focusing on Texas County, Oklahoma, illustrates the impact of the recruitment of industrial swine production on a particular rural county.

The impact was measured by changes in 1) financial indicators– including job, income, taxes, business activity, banking activity, public assistance and housing; 2) people-related indicators– including population size and diversity, and education; 3) social indicators– including crime rates and civil court cases and 4) environmental indicators– including water, soil, and air quality.

Bringing Home the Bacon? reports findings from multi-county research. Two major questions were used as the basis for the study: Do the benefits of the particular economic development proposal outweigh the costs? and Will the outcomes for the community serve the people of that community and state? These are the overarching questions that citizens and government officials should ask when they are faced with deciding whether and to what extent to pursue industrial recruitment as a means of rural revitalization.

The report can be accessed online at www.kerrcenter.com. To receive a copy of the full report or the executive summary contact the Kerr Center 918-647-9123.

Start the Century Right with a Producer Grant

– Maura McDermott

Farmers teaching other farmers how to be more profitable while also conserving natural resources and protecting the environment— that is the goal of the Kerr Center's Oklahoma Producer Grant program. The program brings farmers, ranchers, Extension agents, NRCS technicians, and researchers together to explore new ways of solving problems on the farm.

The program encourages producer innovation. Both research projects and demonstrations are funded. (Research projects are on-farm tests of an idea or technology. Demonstrations are on-farm presentations of a proven farming/ranching practice.) Grants are awarded on a competitive basis. Those interested must fill out a grant application. Proposals are evaluated by an independent technical committee of farmers, ranchers and agriculture professionals. Grants range from up to $3,500 for a one-year project to $7,500 for a two or three- year project.

The Kerr Center program is unique in several ways. Government programs such as CRP and WHIP offer financial assistance to Oklahoma producers to help them adopt conservation practices or improve wildlife habitat. But often the improvements made on individual farms go unnoticed by all but the farmer and his immediate neighbors. The Kerr Center program asks its grant recipients to spread the word about what they are doing. One way to do this is to host a field day. The philosophy underlying this approach is that farmers are more apt to adopt something new if they see it demonstrated, especially if it is being used on a farm like theirs.

The Kerr Center program also differs from others because it is broader. Grants can be awarded in eight areas. They include traditional conservation areas such as soil conservation, clean water, and preserving wildlife habitat. But grants in other areas, such as managing pests with minimal environmental impact or conserving energy, are more unusual.

Kerr Center specialists cannot help a farmer devise a specific grant project, but they are available to help grant recipients with problems and with planning outreach activities like field days. Applicants are urged to link up with agriculture professionals from Extension, other agencies or non-profit organizations for assistance in analyzing and executing a project.

After October 18, an information packet with samples and application form will be available by mail from the Kerr Center or online at kerrcenter.com. Deadline for applications is February 15, 2000. Grants will be awarded March 20.

To be eligible for funding, the project must fit into one of eight areas. These are:

1. Conserving soil and soil health
2. Conserving water and protecting its quality
3. Managing organic wastes and farm chemicals so they don't pollute
4. Selecting plants and animals adapted to the environment
5. Encouraging biodiversity on the farm
6. Managing pests with minimal environmental impact
7. Conserving energy resources
8. Increasing profitability and reducing risk

What kinds of projects might be eligible for a grant? A farmer who wanted to test a reduced spray program or a biological pesticide and then compare the new system to the old might have a viable project. Or a farmer who saved energy and money because of a new tillage approach might qualify. Or a farmer could experiment with growing a cover crop to stop erosion and build soil. Growing an unusual high-value crop or trying a new marketing approach could increase profitability and might be a worthwhile project.

Projects that may fit in one area should not violate another area. For example, an applicant might want to demonstrate a conservation tillage method. Conservation tillage helps stop soil erosion by leaving a large percentage of crop residues in the field to protect the soil. However, if using this tillage method requires that more herbicide be applied, then the project would not be "managing pests with minimal environmental impact." However, if the project also includes plans to demonstrate approaches to managing weeds that would also cut the amount of herbicide used, then it would have a better chance of being funded.

Producers who get involved with this program join thousands of others around the country who are trying new approaches to solving old problems. Many of these approaches fall under what has come to be known as sustainable agriculture. The boxes scattered over the next few pages contain lists of sustainable approaches to farming and ranching. For those who are interested in improving their bottom line while protecting the natural resource base of their farm, perhaps these lists will provide a few ideas. We are looking for fresh, innovative approaches....think about what will work on your farm.

CONSERVE AND CREATE HEALTHY SOIL

Stopping erosion conserves topsoil. Healthy soil is fertile, high in organic matter, has good texture and structure and is teeming with soil life. Preserving healthy soil guarantees a farm's viability into the future.

1. Stop soil erosion by terracing, strip cropping, repairing gullies
2. Add organic matter (with "green manure" cover crops, compost, manures, crop residues, organic fertilizers)
3. Conservation tillage
4. Plant wind breaks
5. Rotate cash crops with hay, pasture, or cover crops

CONSERVE WATER AND PROTECT ITS QUALITY

Agriculture affects water quality when sediment, nutrients, and chemicals are washed into waterways or enter groundwater. Farming methods that prevent soil erosion or filter pollutants can dramatically improve water quality. Water conservation is needed because irrigation is expensive, some groundwater sources are drying up, and farmers face conflicts with urban areas for access.

1. Stop soil erosion in field and pasture
2. Reduce use of chemicals
3. Establish conservation buffer areas
4. Grow crops adapted to rainfall received
5. Use efficient irrigation methods

MANAGE ORGANIC WASTES AND FARM CHEMICALS SO THEY DON'T POLLUTE

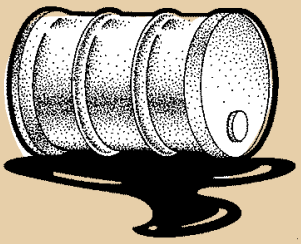
Organic wastes such as manures can be valuable fertilizers on the farm if they are managed correctly, and pollutants if they are not handled properly.

ORGANIC WASTES:

1. Test soil and apply manures and litters only when needed
2. Compost dead animals and litters
3. Store litter piles out of the rain and snow
4. Raise pastured or free-range poultry
5. Raise hogs in hoop houses or free-range

FARM CHEMICALS AND TRASH:

1. Look for alternatives to chemicals
2. Use the least amount necessary
3. Buy the least toxic chemical
4. Recycle
5. Dispose according to label instructions



MANAGE PESTS WITH MINIMAL ENVIRONMENTAL IMPACT

SUSTAINABLE WEED MANAGEMENT

MECHANICAL APPROACHES

1. Mowing
2. Flaming
3. Flooding
4. Tillage
5. Controlled burns

CULTURAL APPROACHES

1. Crop Rotation
2. Smother crops
3. Cover crops
4. Allelopathic plants
5. Spacing plants closely

BIOLOGICAL APPROACHES

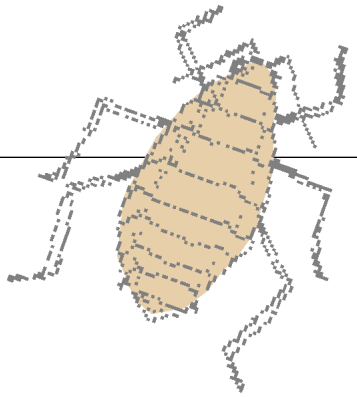
1. Multispecies grazing
2. Rotational grazing

CHEMICAL APPROACHES

1. Integrated Pest Management
2. Using a narrow spectrum, least toxic herbicide
3. Properly calibrated sprayers
4. Application methods that minimize amount used, drift, and farmer contact

SUSTAINABLE INSECT AND DISEASE MANAGEMENT

1. Enhancing existing populations or introducing natural predators, pathogens, sterile insects, and other biological control agents.
2. Traps
3. Maintaining wild areas or areas planted with species attractive to beneficial insects
4. Selective insecticides or botanical insecticides which are less toxic
5. Trap crops
6. Crop rotation (avoid monoculture)
7. Intercropping, strip cropping
8. Crop rotation
9. Maintain healthy soil (prevents soil-based diseases)
10. Keep plants from stress



Pesticides are costly, can cause farmer health problems, and can pollute the environment. Heavy use can make target species resistant.

SELECT PLANTS AND ANIMALS ADAPTED TO THE ENVIRONMENT

Adapted crops and livestock require fewer costly inputs in order to produce well.

1. Grow crops and crop varieties well-suited to Oklahoma's climate
2. Match crops to the soil type
3. Experiment with older, open pollinated varieties that do well without chemical inputs and breeds of livestock that are hardy and require less management
4. Raise livestock adapted to your climate
5. Raise livestock that gain well on grass and native forages

CONSERVE ENERGY RESOURCES

Cutting both the direct use of fossil fuels (gasoline, diesel) and products made from fossil fuels (fertilizers, pesticides) protects producers from price increases or fluctuations in supply that will occur as supplies of fossil fuels decline.

1. Reduce number of tillage operations
2. Cut use of chemicals and fertilizers
3. Develop production methods that reduce horsepower needs
3. Recycle used oil
4. Use solar-powered fences and appliances
5. Use renewable, farm-produced fuels: ethanol, methanol, fuel oils from oil seed cops, methane from manures and crop wastes

ENCOURAGE BIODIVERSITY

(of domesticated animals, plants, wildlife, microbic and aquatic life)

Biodiversity on the farm means the farmer raises a variety of livestock and crops and also leaves habitat for wildlife.

1. Diversify crops and livestock raised
2. Leave habitat (field margins, unmowed strips, pond and stream borders, etc.,) for wildlife
3. Maintain the health of streams and ponds
4. Provide wildlife corridors
5. Rotate row crops with hay crops

INCREASE PROFITABILITY AND REDUCE RISK

Reducing expenditures and diversifying farm enterprises reduces financial risk. Adding value to crops or livestock, trying new crops or livestock, or direct marketing can help producers escape low commodity prices.

1. Diversify crops and livestock
2. Substitute management for off-farm inputs
3. Maximize the use of on-farm resources
4. Work with, not against, natural cycles
5. Keep machinery, equipment and building costs down
6. Add value to crops and livestock
7. Try direct marketing (susbscription farming (CSA), farmers' markets, farm stores, mail order)
8. Grow crops/livestock that receive premium prices (ex. – organically certified)

FARMER PROFILE: *Experimenting to Cut Costs*

The following is the story of a peanut farmer who did on-farm research as part of a sustainable agriculture project in North Carolina. The trials he did allowed him to change his approach to pest control and improve his bottom line.

Peanut farmer Rusty Harrell has a strong incentive to cut costs. Changes in the federal peanut program have reduced both the quota of peanuts farmers can grow and the price they will receive for their crop. With an expected yield of 3000 lbs. per acre and a break-even yield of 2500 lbs. per acre, Rusty doesn't see much room for error – or the unpredictability of weather. He sees his best strategy for improving profitability and reducing risk to be reducing his input costs.

Rusty farms Harrell Family Farms with his brother Robby and their father Melvin. Each owns or rents his own farms, but they pool labor and equipment. Together, they farm 185 acres of peanuts, 900 acres of cotton, and 75 acres of tobacco near Hobgood, in north-eastern North Carolina. When he started coming to meetings of the Peanut Project*, Rusty was skeptical. "I really didn't think that we could cut out a lot of chemicals and practices that we were using. I thought that we were entrenched too deep. I also thought that it was going to be hard to get people to accept change. We had pretty much been doing the Cadillac treatment. We had to learn that just because you have a tool in your tool bag doesn't mean you have to use it."

The Harrells were some of the first to try field trials of thrips control with the Peanut Project. Thrips, small insects which feed on the unopened peanut bud, cause leaf crinkling, and in severe cases, stunting and necrosis. "Years ago," says Rusty, "an Extension agent had told me that thrips were overrated as a problem. That stuck with me, and I wanted to see if it was true." At meetings of the Peanut Project, he talked over possible changes with Extension agents and specialists and with other farmers interested in the same thing. He then tried a field experiment on just a few acres, with a direct comparison with and without chemicals replicated several times across the field. The Peanut Project helped by scouting the field during the trial to make sure the thrips didn't get out of control and by measuring yields at the end of the season.

> "Any time we can reduce the use of pesticides without jeopardizing yields and profitability, I think it's healthier for me, the handler."
> – Rusty Harrell

Their field trials showed them they could do without the thrips control, and they stopped using it. Says Rusty, "The big concern was being able to treat the peanuts if the thrips got bad. We have the labor so that we can spray them if we need to, and so I felt pretty confident about leaving it off. There was a point this summer that I swore I wouldn't leave off the in-furrow insecticide again because they looked pretty rough, but at the end of the season they all yielded the same."

After they dropped the chemical thrips control on their fields, the Harrells continued the comparison tests, making test plots with 16 rows with the chemical next to 16 rows without. The paired plots are replicated three times in the field and yields are carefully measured at harvest. In 1998, unlike previous tests, the test plots showed an increase in yields when the in-furrow insecticide was used. Says Rusty, "We probably could have made another 200-300 lbs. per acre, and the price was high, so we would have come out well with our additional peanuts." Rusty has not fully decided how to respond to this year's data. In the three years of his tests, only in 1998 have the treated plots out-

"We had pretty much been doing the Cadillac treatment. We had to learn that just because you have a tool in your tool bag doesn't mean you have to use it."

– Rusty Harrell

yielded the untreated ones. He figures that even if the chemical control does sometimes give a higher yield, he's not sure that he can count on a price that will justify the additional expense of the treatment.

Other changes in the Harrells' production system have included the elimination of other preventive pesticide applications. "We cut out using a soil insecticide for rootworms last year because we just haven't seen much damage." To avoid problems with Cylindrocladium Black Root Rot (CBR), a potentially devastating disease for which most growers use a soil fumigant, they changed a number of practices. "We noticed that when we planted late, there was less of a problem, so we started planting later. We changed to resistant varieties and started a longer rotation. That's difficult because we have a limited amount of good peanut land, but we try to do a 3- to 4-year rotation now."

Cutting back on pesticides has provided considerable savings for the Harrells. "In all, we cut about $120 per acre out of our production costs in 1997 reports Rusty. "I've never made more money off of my peanuts except the year when the price doubled - and this is with the reduction in quota and price."

Rusty sees other benefits as well. Says Rusty, "I don't like messing with [pesticides]. Any time we can reduce the use of pesticides without jeopardizing yields and profitability, I think it's healthier for me, the handler."

He believes that the field trials that he and his brother have conducted for the last two years have given him the confidence to make changes in the whole operation. He's now thinking about what changes he might make next, perhaps going to a no-till operation, trying to cut costs by making fewer trips over the field.

From Breaking New Ground: North Carolina Farmers Explore Sustainability. This booklet is full of ideas and stories like the one above. Published by Carolina Farm Stewardship Association for Partners in Agriculture P.O. Box 448, Pittsboro, NC 27312.

*The Peanut Project worked with North Carolina peanut farmers to reduce input costs and improve profits; sponsored field trials, workshops, etc. In 1997, Peanut Project farmers reduced their use of chemical pesticides from 1994 levels by over 25,000 pounds of active ingredient, on over 2,000 acres. Ninety percent of participating growers increased their profit and most reported no reduction in yields. For more information, contact project manager Scott Marlowe 919-361-9866. The Peanut Project was sponsored by the Rural Advancement Foundation – USA (RAFI), www.rafi.org, P.O. Box 655, Pittsboro, NC 27312

Learn More About It

Kerr Center specialists will be conducting free workshops on the Producer Grant program during November and December. Workshop attendees will learn how to develop ideas into proposals and how to fill out the grant application. Dates are:

NOVEMBER 2
Tulsa Community College,
7 p.m.

NOVEMBER 4
Ada Vo-tech,
7 p.m.

NOVEMBER 8
Woodward Vo-tech,
7 p.m.

NOVEMBER 9
Panhandle State University,
7 p.m.

NOVEMBER 11
Great Plains Vo-tech, Lawton,
6:30 p.m.

DECEMBER 6
Stillwater
(Tentative)

DECEMBER 7
Oklahoma City Public Library
7 p.m. (Tentative)

DECEMBER 9
Kerr Center, Poteau
7 p.m.

For information on workshops or the grant program contact Alan Ware or David Redhage at the Kerr Center at 918-647-9123.

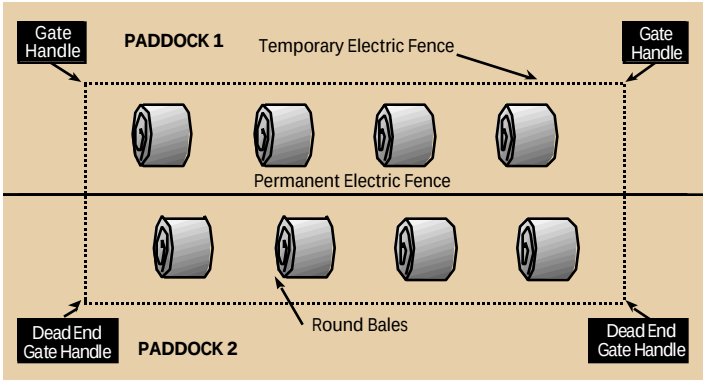
An Efficient Hay Feeding System

by Brian Freking

One aspect of sustainable cattle production is to manage forage to ultimately reduce or eliminate feeding hay. We have not been able to achieve this elusive goal, but we continue to refine how we feed hay.

Neighbors, or at least their wives, seem to always ask me, "why do you leave the hay bales in the field?" We do use a system where hay bales are left in the pastures during the hay season, rather than stored somewhere else and taken to the herd. This system was coined the spaced-bale hay feeding system by the Forage Systems Research Center (FSRC) in Missouri. There are numerous advantages to this system. Primarily, our reason for using it is to reduce the damage to our pastures and equipment when conditions are less than ideal.

The basic set up of the feeding system is illustrated at right. Large round bales are pre-set prior to winter feeding time to reduce labor, tractor usage, and pasture damage from running equipment in the field during muddy times. The pasture can be any size and the number of bales in each can vary as well. We generally figure our hay needs based on previous history of usage. We generally have had to plan on feeding for 70-90 days. We also keep an inventory of cattle to determine needs on a per head basis. If I know the number of head of cattle and estimate consumption based on historical data I can preplan my hay needs fairly closely. Because of our stocking rate and rotational grazing system we have fed approximately 1-2 bales per head for the winter period. The number of cattle this year is planned to be 450 head.



Spaced-bale hay feeding system using portable electric fence.

Therefore we will prepare for 500 bales spaced throughout our pastures. Bales are spaced according to the total number of pastures used in the planned rotation. One example illustrating the math is the Stewardship Farm where we rotate our stocker cattle through approximately 208 acres divided into 18 paddocks. Our rotation is primarily a two-day rotation. Therefore enough hay should be placed in each paddock for a 90 day period. With 18 paddocks and a two-day rotation we would need approximately six bales per paddock to last the desired time. In this system each pasture would be rotated through three times with a rest period of 34 days. We could also be flexible and speed up the rotation when it gets closer to spring green-up. In this scenario we could have two rotations with a two day rotation, and two with a single day rotation.

We prefer to use biodegradable sisal twine for the bales since we are not transporting the bales from the barn to the pasture. It is critical that twine spacing be kept to less than three inches to

minimize storage waste. The narrow twine spacing provides excellent storage protection for grass-dominant hay. Hay from pastures which have a higher percentage of legumes is generally stored in the barn.

Even setting out a month's worth of hay at a time is much more efficient than feeding on a daily basis. In our rotation system we've also found that using hay rings doesn't save that much hay from wastage. When cows are limited to only a few bales they tend to vacuum up any hay available.

One negative behavior we have observed is that dominant cows tend to spend more time at the hay than grazing. With this drawback in mind, producers could divide the herd into smaller, common groups. Examples are first-calf heifers, stocker calves, bulls, mature cows in good body condition, and older cows, etc. Using this system allows us to manage at a more efficient level. If the mature cows look to be maintaining body condition, why feed hay just to put weight on those few that are a little thinner?

We prefer a small number of bales in many paddocks rather than a large number of bales in just a few paddocks. Trampling damage does occur around hay bales and a light discing or harrowing may be required to smooth the ground out and reestablish forage. Our general experience has been that this is not necessary and that seed from hay spreads throughout the pasture.

Many producers are beginning to look at this system more closely. Maybe you should re-evaluate the traditional practices of feeding hay!

October 21 Field Day

Ranchers, mark your calendars: the annual Stewardship Farm Field Day will be held on the afternoon and evening of Thursday, October 21 at the Kerr Center Ranch, on Highway 271 south of Poteau. Hear research updates and tour the ranch in the afternoon. A barbecue dinner will be available at six p.m. After dinner, a panel of producers will convene to discuss what it means to have a sustainable ranching operation, and the audience will have an opportunity to ask questions and offer comments.

Bobby Gage, David Pickle and Brian Freking at the 1998 Kerr Field Day

2:30-3:00 • REGISTRATION AT THE KERR CENTER RANCH BARN

3:00-3:30 • RESEARCH UPDATES
Heifer replacement: Two years of results from a heifer management study comparing breeding and first-calf information on three groups of heifers fed either grain, grass and grain, or grass only. *Retained ownership:* Research updates comparing marketing through a branded program with a more conventional feedlot with implants. Costs and returns will be the focus.

3:30-5:30 • RANCH TOUR. Participants will see and learn about: *Riparian areas* (examine the changes that occur after streams are fenced off). *Livestock water crossing* (a stabilized crossing that features gradually sloping banks covered with a material that resists the wear and tear of cattle and/or machinery). *Limited access watering* (a floating electric fence in a stock watering pond) *Pasture hay storage* (see article on page 10) *Mobile fly trap* (the pros and cons of this innovative device) *Rotational grazing system* (how the Kerr herd is managed) In addition, information on the Kerr Center's Producer Grant Program will be presented.

6:00-7:00 • CATERED BARBECUE DINNER
(Brisket, sausage and all the trimmings –
$4 adult, $2 under 12. ***(MUST RESERVE BY OCTOBER 15)***

7:00-8:00 • PRODUCER PANEL DISCUSSION

Sale cattle may be inspected during the Field Day. *See story on back page*

Enjoy an Old-Fashioned Fall at the Farm-Fest

The sky is the deepest, cleanest blue, the air is crisp, the oaks on the hillsides are turning bronze–fall has arrived. Enjoy an autumn day in the lovely hills of southeastern Oklahoma at the 8th annual Overstreet-Kerr Historical Farm-Fest.

The farm-fest offers a unique glimpse of Oklahoma farm life in days gone by.

Volunteers will show visitors skills every farm family once took for granted. The atmosphere is casual, and visitors are encouraged to visit with craftspeople and ask questions.

The highlight of the festival is watching the old timers (and a few youngins') mill and cook sorghum, Oklahoma's answer to maple syrup.

New this year for visitors to enjoy is the playful Buddy, the baby buffalo.

The Historical Farm received the 1998 Native Beauty Award from the Oklahoma Tourism and Recreation Department. The award recognizes outstanding scenic attractions or picturesque areas.

Friday, October 8, is reserved for schoolchildren. Admission is free, but teachers must reserve entrance in advance by calling 918-966-3396. On Saturday, October 9, the festival goes public. Visitors can tour the 1895 home and farmstead during the festival. Food and soft drinks will be available. Admission is $5 for adults, $3 for school age youth (6-18), under 6 free.

The Farm is located on highway 59, about ten miles south of Sallisaw exit on I-40, or 23 miles north of Poteau, or approximately 60 miles north of the Talimena Drive.

If you have a Native American or pioneer craft or skill you would like to demonstrate or want more information about this fun, family event, call 918-966-3396.

Photos counter-clockwise from top left: David Redhage cooks sorghum. Alan Ware with sorghum; Delmer Robinson, Master Sorghum Cooker; Mammoth Donkey; sorghum press; Bonnie Cox making a rag rug; Wayne Cox crafts an old-style rifle; John Williams operating a late 1800s foot-powered scroll saw.

Is There a Black Walnut Tree in Your Future?

– Maura McDermott

In my opinion, the black walnut is the best-testing nut in the world. Those who favor pecans, and lovers of macadamias may take exception to this statement, and to be sure those nuts can hold their own in any taste test. But the black walnut (Juglans nigra L.) is to my taste, the best, with a sweet, rather exotic flavor that is unlike any other. Furthermore, when it comes to delicacy and aroma, the black walnut leaves its cousin, the English walnut, in the shade.

However, when it comes to sales (not to mention number of acres planted), the English walnut is far ahead. "The black walnut is underutilized," says James E. Jones, president of the newly-formed Center for Advancement of the American Black Walnut. Jones and his organization in Stockton, Missouri, aim to remedy that. They are setting up variety trials/test plantings in demonstration groves in nine states. Currently, the Center is looking for a few landowners in Oklahoma to who have 1-3 acres easily accessible and visible from a road. The Center will provide the seedlings. The grower must agree to open the grove up for a field day each year. While experience with tree crops is a plus, it is not a requirement for prospective growers.

Jones has had plenty of experience with black walnuts. He worked for Missouri's Hammons Products for twenty-five years, first as director of forestry and land management and then as vice-president. Hammons is the only black walnut processing company in the world. Jones directed the planting of over one million black walnuts trees during his tenure with the company.

Native black walnuts grow well in the eastern three-quarters of Oklahoma. They make great shade trees, are useful in shelterbelts, and offer food for wildlife. Lumber from large trees is prized for furniture.

Growing new varieties of higher-yielding black walnuts holds a lot of promise for farmers interested in a crop that is both sustainable and renewable. Recently Jones and his colleagues put together a Nut Production Handbook for Eastern Black Walnut for prospective growers. The 147 page, five-section handbook is an excellent guide to the subject. For more information contact Jones at:
P.O. Box 600, Stockton, Missouri, 65785-0600.
Phone: 417.276.6010. Fax: 417.276.6011.

KERR CENTER CATTLE SALE

Saturday, October 23, 1:30 Le Flore County Livestock Auction Barn, Wister

Forty-five heifers and fifteen cows from the Kerr herd will be sold. Angus and Senepol crosses will be the primary breeds. Cattlemen may inspect the cattle the Thursday before the sale during the Stewardship Farm Field Day (see page 13) and on Friday from 9-12 at the Kerr Center Ranch headquarters. Brian Freking will be on hand to answer questions.

Featured will be the service of these sires: KCR Ext 8022, KC 8054 H, **Traveler 198 SDG** (His sire Sitz Traveler 8180 is enjoying tremendous success across the country. He stems from the famous "Everalda Entense 1137" cow who was the $32,000 top-selling cow of the '95 Sitz sale to Shady Brook Angus). Also, AI sires: Paramount Ambus 2172, Leachman Conveyor, Fink's Bando, KAR Shoshone Traveler.

Ten bulls will also be on sale by private treaty at the ranch. For more information contact Freking at 918-647-9123.

FALL HARVEST FESTIVAL

Saturday, October 2, 1999 8-3, Muskogee Public Library 801 West Okmulgee, Muskogee

The Muskogee Farmers' Market and the Muskogee Library will team up again this fall for an old-time country fair. Local crafters and organizations with fundraising items will join farmers with their abundant fall produce. Entertainment, food, fun, and lots of pumpkins!

For information call Jan Bryant, Muskogee Public Library 918-682-6657 or Susie Lawrence of the Farmers' Market at 918-497-5474

BASIC TRAINING FOR FOOD ENTREPRENEURS

September 21, October 19, November 16, 1-4:30, Oklahoma Food and Agricultural Products Center, OSU, Stillwater.

Do your friends tell you that you make the best salsa? Is your grandmother's bread the hit at every social function? Maybe you have a family recipe for lasagna that you think can go commercial. Perfecting your product is only the first step in starting a food business. This "basic training" workshop will help entrepreneurs answer questions such as: When should I expect my business to make money? How much up-front capital will I need? What regulations apply to me? Who are my target customers? How do I get my product into their hands?

A light noon lunch is included in the fee of $20. Call 405-744-6071 for more information.

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

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