



# Field Notes

Kerr Center for Sustainable Agriculture

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## We Know We Belong to the Land!

Do we?

You know your doctor. You know your dentist. But do you know your farmer?

Agriculture is an \$8 billion a year industry in the state, but as Oklahoma has become more urban, the personal connection that most Oklahomans once had to the land and to the farm has been broken.

New online resources from the Kerr Center are designed to restore that connection, making it easy to “find (or meet) a farmer” and find fresh, locally-grown foods.

*The Oklahoma Food Connection* is an online food directory where consumers can locate farms who sell directly to the public. The Oklahoma Farmers’ Speakers Bureau is a list of farmers available to speak at schools or willing to show schoolkids around their farms. *Closer to Home* is a new book that profiles innovative farmers in the state and tells readers how to connect with them. (See pgs. 3-15.)

These educational resources were made possible by the USDA’s Community Foods program (grant # 2004-33800-1514). All are available at [www.kerrcenter.com](http://www.kerrcenter.com). Listing in *The Oklahoma Food Connection* is free; farmers may submit their information by calling the Kerr Center or going to the Kerr Center website.

While there, farmers and gardeners can find information on educational events sponsored by Kerr Center and others. Also online are newsletters, many other publications, and descriptions of Kerr Center programs.

“We want producers to learn new skills and



find new opportunities,” says Alan Ware, organizer of this season’s extensive lineup of field days and workshops, presented in partnership with the USDA’s Risk Management Agency.

For those new to the farm or starting a new venture, four “basic skills” workshops will be held at venues around the state (see p. 16). A day-long goat production workshop near Sulphur (see p. 22), and an open house at Natural Farms Ranch near Tulsa (see p. 24) will be held in June.

The public is invited to come out and see how natural beef is produced and get shopping and cooking tips, says Jeff Emerson. The Emersons own Natural Farms Grocery Store and Restaurant in Tulsa.

In this centennial year, the Kerr Center invites Oklahomans to rediscover the land they belong to, and enjoy the bounty of the state’s farms and ranches.

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 south-eastern Oklahoma town of Poteau. It was established in 1985.

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# The Climes, They Are A-Changin': Hardiness Zone Map Shows Warming over Past 15 Years

Most gardeners instantly recognize the USDA hardiness zone map, whether from their favorite gardening books or the backs of their seed packets.

The map divides the North American continent into hardiness zones based on weather records from 5,000 National Oceanic and Atmospheric Administration weather stations across the United States.

The hardiness zones are defined based on the average annual low temperature. For example, in Zone 7, which covers much of Oklahoma, average annual low temperatures range from zero to ten degrees Fahrenheit.

The USDA last revised its hardiness zone map in 1990. However, the National Arbor Day Foundation recently updated the map using the same methods as the USDA, but with weather-station records from the 15 years following 1990.

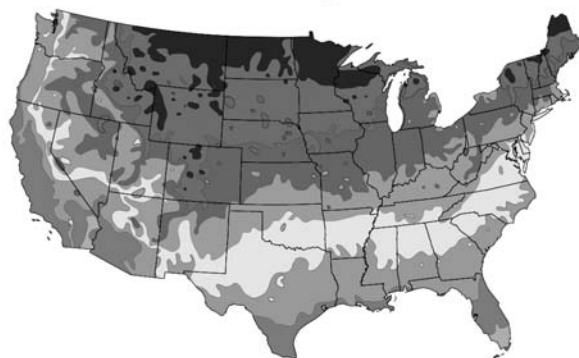
The result? Many areas, including parts of Oklahoma, have warmed enough since 1990 to shift into a warmer hardiness zone (see map).

Zone 6, (average annual low temperature  $-10^{\circ}$  to  $0^{\circ}$ F), which formerly occupied most of the northern third of the state, has been displaced by the warmer Zone 7 in all but the Panhandle.

The central part of the state remained in Zone 7, but Zone 8 (average annual low temperature  $10^{\circ}$  to  $20^{\circ}$  F) crept northward past the Red River.

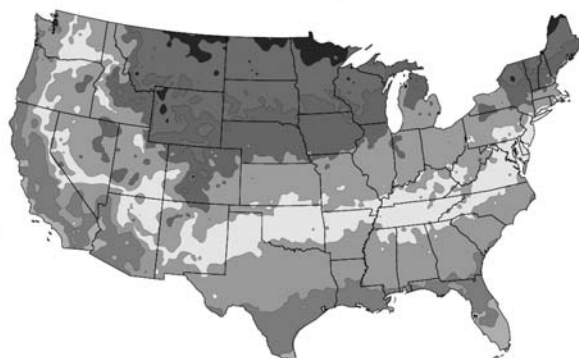
More information is available on the National Arbor Day website, [www.arborday.org/media/zones.cfm](http://www.arborday.org/media/zones.cfm).

1990 Map



After USDA Plant Hardiness Zone Map, USDA Miscellaneous Publication No. 1475, Issued January 1990

2006 Map



National Arbor Day Foundation Plant Hardiness Zone Map published in 2006.

#### Zone



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# Closer to Home: Healthier Food, Farms and Families in Oklahoma

*Excerpted from Preface and Introduction*

## 1. You're doin' fine, Oklahoma!

This declaration caps the chorus of *Oklahoma!* – title song of the Broadway musical and Oklahoma's state song. It's a simple statement that Oklahomans sing proudly, even fervently.

Unfortunately, as the state celebrates its centennial in 2007, Oklahomans are really not doing so fine when it comes to health.

Oklahoma ranks dead last in the nation in the percentage of adults who eat the recommended five or more servings of fruits and vegetables per day.

Over one-third of Oklahoma adults are overweight; one-quarter are obese. About a quarter of high school students are overweight or obese.

Only one other state outranks Oklahoma in deaths from heart disease, a condition associated with overweight. We have high rates of diabetes and stroke, conditions also related to overweight and ultimately to not "living (or eating) right."

More of us are poor in Oklahoma than in 41 other states. Ironically, poverty, too, is associated with being overweight.

The most troubling statistic of all is that far too many of us don't know if we will have money to buy enough groceries next week, or worse, are downright hungry today. Oklahoma in 2004 ranked first among the states in the percentage of households with people who are going hungry.

These stunning facts are all related to food. It is clear that in Oklahoma our health is not as good as it could be and that this is partly because of the food we eat.

Which brings up an important question: Can Oklahomans eat better? In other words, do Oklahomans understand what good food is and do they have access to it?

## 2. We know we belong to the land.

If taken to heart, this simple statement points the way to a healthier Oklahoma.

In story and song, Oklahoma is forever associated with the joys and tragedies of life on the land. *The Grapes of*



*Wrath*, Woody Guthrie's Dust Bowl ballads, and the Broadway musical *Oklahoma!* have made Oklahoma and the family farm inseparable in the public mind, even as Oklahoma has slowly but surely become more urban.

Today only about a third of Oklahomans live in rural areas. About 10% of the rural population is engaged in farming (fewer than 5% of the state's population). Poverty rates are high in rural Oklahoma counties, per capita income is low, and farming for many is barely profitable.

Do Oklahomans still belong to the land? Some would say no and feel no regret. Yet others feel a connection, a strong pull that has them planting a backyard garden or going to a farmers' market on a Saturday morning or looking for the "Made in Oklahoma" sticker on grocery store shelves.

For some this connection to the land is in the blood, part of being an Okie. For others it is simply a desire to eat better. This yen – to eat fresh food, grown locally – is a healthy one.



If more individuals had this impulse, Oklahoma would likely be a healthier state.

Which begs the question: Can we encourage this yen? Can communities make it easier for individuals to eat the fresh fruits and vegetables, lean meats and whole grains which experts tell us will keep us healthy?

### 3. The land we belong to is grand.

Oklahomans can make this simple statement without boasting. With its eleven ecological regions, Oklahoma encompasses humid cypress swamps and dry high plains. Oklahoma has 2,500 different types of soil, from the red clay of the prairies to the dark loams of the river bottoms.

Farmers and ranchers work hard to make Oklahoma an agricultural powerhouse, contributing \$8 billion annually to the state economy. We rank near the top among the fifty states in production of winter wheat, cattle and pecans, eighth in hogs, and twelfth in watermelons.

Oklahoma can grow everything from A to Z, asparagus to zucchini, yet most of the foods that Oklahomans eat are grown and processed elsewhere. Over the last fifty years, farms have become less diverse, instead specializing in one or two crops. At first glance, the “chicks and ducks and geese” in the way of the famous Oklahoma “surrey with the fringe on top” have scurried out of the barnyard for good.

Yet not all the farm scenes familiar from *Oklahoma!* have been blown away by the wind sweeping down the plain. A small yet growing number of farmers are diversifying their crops and their markets (even free range chicks are making a comeback). Farmers are selling their fresh fruits and vegetables directly to consumers at local venues such as farmers’ markets. Ranchers are taking direct orders for grassfed or

natural beef from consumers concerned about their cholesterol, but unwilling to give up hamburgers. Innovative farmers are taking orders over the Internet. Some have “gone organic;” some are acclaimed for their gourmet cheddar cheeses; some are known nationally for their successful regional marketing strategies.

And as in other parts of the country, Oklahomans are slowly rediscovering their food roots and seeking out Oklahoma-grown in restaurants and groceries.

Which brings up the question – can this trend make us healthier? Can Oklahoma farmers help us to eat better?

### 4. You’re doin’ fine, Oklahoma!

To be able to say (or sing) this, without reservation, is the motivation behind *Closer to Home*, the Kerr Center’s centennial report.

Funded by a grant from the USDA’s Community Food Projects Competitive Grant Program, *Closer to Home* attempts to answer the questions posed above:

Can Oklahomans eat better?

Can communities make it easier for individuals to eat better?

Can Oklahoma farmers help us to eat better? How?

We explore these and related questions such as:

If Oklahoma farmers can help Oklahomans eat better and therefore become healthier, can consumers in turn help Oklahoma farms become healthier – more diversified, more profitable and more ecologically sustainable?

Will these healthy farms benefit us by making our food supply more secure?

We look for answers in the stories of Oklahomans growing, processing, selling, cooking, and eating the bounty

of Oklahoma's fields and gardens. The twenty-five easy-to-read articles run the gamut— from a small school garden in Delaware County to Oklahoma's own regional dairy, Braum's.

Alongside these portraits, we explore the issues that Oklahomans should consider when thinking about how to make Oklahoma's families, farms and communities healthier. For example, alongside an article about the Oklahoma Farm-to-School program is an overview of the diet-related health problems of Oklahoma's kids. Along with a profile of Peach Crest Farm, a peach farm near Stratford, is an exploration of the money-making potential of local markets.

Two years in the making, this groundbreaking book features extensive research and original analysis. The report, along with other activities, was funded by a 2004 grant from the USDA Community Foods Program.

The USDA has identified a number of community food programs it sees as important to reducing hunger and food insecurity in the United States. These programs include

- farmers' markets - that boost incomes of small local farms and increase consumers' access to fresh produce
- community gardens - that help low-income consumers supplement their diets with homegrown produce
- community supported agriculture (CSA) farms -that can help provide small farms with economic stability and consumers with high quality produce, often at below retail prices
- farm-to-school initiatives - that help local farmers sell fresh fruits and vegetables directly to school meals programs.

Over the long term, say advocates, the hope is that community food security programs will both “strengthen local capacity for food production, processing and marketing; and boost the effectiveness of federal food assistance and education programs by increasing the availability of high quality affordable food within a community.”

Community food programs, says USDA, can also “support rural communities by strengthening traditional ties between farmers and urban consumers.”

*Closer to Home* takes a look at food in Oklahoma, from farm to table. The report takes a closer look at twelve counties in Oklahoma in the series of “county snapshots” scattered throughout.

Each “snapshot” is a collection of statistics that indicate the level of, and potential for, community food security in the county. It includes indicators of economic well-being for individuals, households, and farms.

Also included is an indicator of diet-related health (weight) of county residents. Information showing the potential for increased local food production and sales is also presented.

The county snapshots could easily serve as a starting point for groups who want to conduct a more in-depth assessment of their community's food security.

As Oklahoma celebrates its 100th birthday in 2007, it is indeed time to take stock. So we invite you to read *Closer to Home*. We hope that when you are done you will be inspired - to cook up some lean beef chili, or bake a loaf of whole wheat bread, or slice a juicy “Cherokee” tomato - and experience the good taste of food grown on Oklahoma farms. Hum a few bars of *Oklahoma!* and remember: the land we belong to, indeed, is grand.

– Maura McDermott, Editor, *Closer to Home*, for report researchers and writers Wylie Harris, Doug Walton and Mary Penick.



You've got  
to go out  
on a limb  
sometimes  
because that's  
where the  
fruit is.

– Will Rogers

► *Closer to Home* is available online at [www.kerrcenter.com](http://www.kerrcenter.com) or by calling the Kerr Center.

# Closer to Home: Healthier Food, Farms and Families in Oklahoma

## Round Up of Issues

*In each chapter we set goals and suggest actions that individuals, communities and policy makers can take to make to help achieve a healthier Oklahoma*

ISSUE:	GOAL:
<b>Nutrition and Health</b>	<b>Link Oklahoma-grown foods with good taste and good health.</b> The health of Oklahomans can be improved if Oklahomans increase their consumption of farm-fresh fruits, vegetables and whole grains.
<b>Food Insecurity</b>	<b>Increase food security in Oklahoma</b> by making fresh, affordable, locally-grown food more available to low-income Oklahomans.
<b>Children’s Health and Food Education</b>	<b>Improve the diets of Oklahoma’s children</b> through increased consumption of farm-fresh fruits and vegetables.
<b>The Cost of Good Food</b>	<b>All Oklahomans, including those with low incomes, should be able to afford to buy healthy food.</b> All Oklahomans should be food literate: knowledgeable about what healthy food is, how when and where to buy it, and how to cook it.
<b>Access to Good Food</b>	<b>Easy access to fresh fruits and vegetables, emphasizing locally grown,</b> for Oklahomans of all income levels.
<b>Direct Marketing</b>	<b>Increase the total value of direct sales made by Oklahoma farmers</b> to consumers so that farmers and their communities can retain a higher share of their food dollars.
<b>State of the State’s Farms</b>	<b>Foster the continued entry of diverse new farmers into Oklahoma agriculture</b>
<b>Food Imports and Exports</b>	<b>Increase the amount and diversity of foods that are grown, processed and consumed all within Oklahoma.</b>
<b>Farm Diversification</b>	<b>Increase the diversity of crops and livestock grown on Oklahoma farms.</b>
<b>Local Marketing</b>	<b>Increase the total value of local sales</b> made by Oklahoma farmers to consumers so that farmers and their communities can retain a higher share of their food dollars.
<b>Making Something New: Adding Value to Oklahoma’s Crops</b>	<b>Stimulate the creation of locally owned, value added enterprises</b> for processing raw Oklahoma grown commodities
<b>Something Different: Food Labels</b>	<b>Help Oklahoma farmers to meet local shoppers’ growing demand for healthy, organic and sustainably produced foods.</b>
<b>Saving Farmland: Urban Sprawl and Family Farms</b>	<b>Pursue a program of vigorous local economic development of the food system, combined with carefully crafted land-use policies,</b> to ensure that agricultural land both is protected and continues to be farmed.
<b>Keeping it Closer to Home: Food Miles and Regional Markets</b>	<b>Address the environmental impacts and vulnerabilities of cross-continental food shipment</b> by reducing the food miles of items consumed by Oklahomans.

# A Going and Growing Market in Muskogee

- Doug Walton

When making a salad in Oklahoma, what are the chances that the ingredients were grown here?

Not likely, if they came from the grocery store. The lettuce, spinach, carrots, bell peppers, onions and even tomatoes were probably grown a thousand or more miles away, perhaps even across the border in Mexico or Canada.

Not to say these items can't be grown in Oklahoma - as a trip to one of the farmers' markets in the state will confirm.

A leisurely stroll down the shade-covered sidewalk at the Muskogee Farmers' Market reveals an array of locally grown fresh fruits and vegetables

During the course of the season, a rainbow of different fruits and vegetables can be found at the market - enough to stir up any number of different salads.

In the springtime, asparagus, green onions, radishes, turnips, spinach and a mix of other leafy greens are some of the first crops to come off, soon to be joined by lettuce, peas, potatoes and beets. Next come cabbage, carrots, cucumbers, green beans and squash. And by early summer, sweet corn, tomatoes, eggplant, peppers, and okra are showing up.

Fruits that are seasonally available for foraging include blackberries, blueberries, cantaloupe, grapes, nectarines, peaches, pears, plums, strawberries, and watermelon.

Along with these, other products available throughout the market year include fresh-baked bread, free-range eggs, live plants, cut flowers, soaps, candles, gourds and even packaged composted chicken litter. (Some markets in the state offer cheeses, grass-fed beef, buffalo and lamb products.)

Between 2001 and 2005, ten new farmers' markets opened in Oklahoma, joining markets such as those in Norman and Stillwater which have been in operation for over 25 years. In 2005, 24 of the state's 40-plus farmers' markets, including Muskogee's, exclusively sold produce grown in Oklahoma. These "Oklahoma Grown" farmers' markets ensure that customers will find the freshest locally grown items available.

The Oklahoma Department of Agriculture, Food and Forestry estimates sales of at least \$3.3 million at all farmers' markets during the 2005 season.



In the U.S. there were over 3,700 farmers' markets in 2004, twice as many as there were ten years earlier.

## A Natural Growth

What is fueling the growth of farmers' markets across the nation and in Oklahoma? A look at the formation and evolution of the Muskogee Farmers' Market may help answer that question.

It was in the late spring of 1995 when three Muskogee area farmers, Deno Clopton of Ft. Gibson, Charlie Davis of Webers Falls, and Susie Lawrence of Braggs, came together in an effort to tap into what seemed to be a growing public interest in farm fresh produce.

Clopton and Davis were already raising a variety of vegetable crops. Clopton had a large market garden and was selling through a local flea market and from a vehicle parked near various street and highway intersections. Davis raised cattle and hay, as well as produce, which he was mostly wholesaling to grocers and also selling roadside off his truck.

Lawrence was new to farming, having quit a job in retail sales to begin growing specialty flowers for dried and fresh-cut bouquets.

The three say that they started the market in order to establish a reliable base of customers they could sell to and get a fair price.



During her tenure as market manager, Susie Lawrence (left) guided its steady expansion.

Surveys of Oklahoma farmers' market producers in 2001 showed the top reason for selling at the market was to receive retail value for the products sold.[2]

Davis recalls, "I couldn't count on wholesalers to buy all my crops, and got tired of feeling my produce was worth more than I was getting paid."

The three growers began meeting on Saturday mornings to sell their crops in a downtown parking lot. Within a few years, the three had grown to ten and moved to the shade-covered sidewalk behind the Muskogee Public Library. The market is open on Saturday mornings and during the peak growing season, on Wednesdays.

In 2005, the Muskogee Farmers' Market Association still included the three founding farmers, as well as over 25 other market members.

One member is Burl Doyle, a second generation truck farmer in his seventies, who raises strawberries, blackberries, tomatoes and a variety of other horticultural crops near Stilwell.

Doyle sells his produce at his on-farm store and also wholesales mainly to roadside farm-stands throughout north-eastern Oklahoma. However, Doyle says his sales at the Muskogee farmers' market have allowed him to remain profitable as a full-time farmer.

"Coming to this market has increased my overall sales by at least 50%, reaching a large group of customers who would probably never make the drive to my farm," he says.

Lawrence, the flower grower, has volunteered as market manager since the market's inception. "When the three of us set up in that first parking lot, it was hard to imagine we

would ever see this many vendors and customers," she says. "The customer support has been just incredible. Overall sales at our market have increased by 20 to 40% each season."

In fact, the Muskogee Farmers' Market has been so successful that a city sales tax increase was passed by voters to build a new site for the market. Permanent, covered pavilions have been constructed adjacent to the Civic Center, as part of a downtown festival-market square completed this spring. City leaders and downtown merchants expect the market's vibrant atmosphere and regular shoppers will spill over into adjacent businesses.

"We're really looking forward to having the farmers' market situated right near the heart of downtown at the Civic Center," says Jim Eaton, chairman of the Muskogee Downtown Revitalization Committee. "We definitely can see the market bringing more people into downtown Muskogee."

Sue Harris, president of the Muskogee Area Chamber of Commerce, suggests the farmers' market is an important part of the local economy. "The money spent by customers not only supports our local farmers and family-owned enterprises, it also goes to other area businesses as the farmers and vendors spend some of their earnings."

Harris often shops at the market. "The market adds such a wonderful sense of community to our town," she says. "It just feels good to go down there, and it's one of those things that really adds to our quality of life here in Muskogee."

## Future Challenges

In moving to a new, more visible location, Susie Lawrence expects customer traffic to be greater than ever. "My biggest concern is that we'll have enough produce to offer our customers a good variety," says Lawrence, who has also served as an officer for the Oklahoma Farmers' Market Alliance, a statewide association of farmers' markets.

As some farmers' markets expand and as new markets are opened within towns and cities throughout the state, Lawrence says continuous efforts are needed to recruit more produce growers.

"When markets don't have a consistent supply of fresh produce, it's hard to attract and maintain a stable base of customers. A lack of steady customers can then discourage other growers from participating in a struggling market," she says.

Meanwhile, other more established markets have sufficient volumes of produce and other items, yet need to reach out to include more customers. Lawrence suggests agencies, businesses and civic organizations all work together to develop and promote the many benefits of successful farmers' markets in their own communities.





Oklahoma has around 35 registered farmers' markets. Above: Stillwater Farmers' Market

## Survey Says

In 2001, Oklahoma State University, the Oklahoma Department of Agriculture, Food and Forestry, the Kerr Center and the Oklahoma Farmers' Market Alliance conducted surveys of farmers' market customers and managers, as well as producers.

The customer survey indicated that an important reason for shopping at a farmers' market is having direct contact with the food producer.

Jim Beller, a regular customer at the Muskogee Farmers' Market agrees. "I just like knowing who my food came from."

Interacting directly with customers is also important to producers. "By selling directly to the consumer, I can give them tips on cooking and answer other questions about my produce," says Clopton. "Also, they can let me know if there's something they want me to grow or if they're ever unhappy with something they've bought from me. The feedback really helps."

Another important reason customers choose to shop at farmers' markets is to support local farmers.

"I just like to keep the dollars in our state, where they belong," says David Willis, who shops regularly at the Muskogee market.

And while the customer surveys indicated that low prices are not an important reason for shopping at farmers' markets, anecdotal studies suggest that produce prices at two different markets in Oklahoma compare favorably to nearby retail food stores.

What was most important to Oklahomans shopping at farmers' markets? "Quality" of the fresh produce was cited by 89% of surveyed customers.

As one Muskogee farmer tells his customers, "You can't get it fresher, unless you grow it yourself."

## Who's Got Markets?

- California is first with 444
- New York is second with 275
- Texas has 102
- Missouri has 97
- Kansas has 70
- Arkansas has 28
- With 178, Iowa has the most per capita

**"I just like to keep the dollars in our state, where they belong,"**

**– David Willis, farmers' market regular**

# COMMUNITY FOOD SECURITY: SNAPSHOT

## Muskogee County

70,255 people in 2003    +1% since 2000 [+2%]  
 1,740 farms in 2002    -3% since 1997 [-1%]:  
 668 with net gains, averaging \$18,579  
 1,071 with net losses, averaging \$7,307  
 309 with federal subsidies, averaging \$2,994

Per capita personal income, 2003: \$21,926 [*\$25,936*]  
 Average farm net income, 2002: \$2,637 [*\$8,220*]

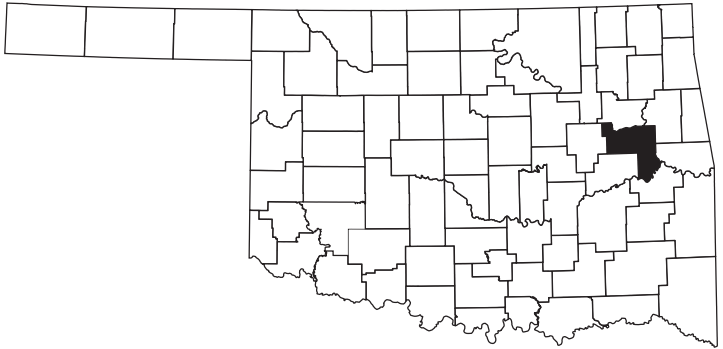
Poverty: 17.7% [*14.5%*]    Unemployment: 7.26% [*5.66%*]  
 Students receiving free and reduced price lunches: 61.3% [*54.1%*]

Percentage of county population that is  
 Underweight/normal: 43.0 [*39.9*]    Overweight: 29.0 [*36.0*]    Obese: 27.9 [*24.1*]

Amount spent in 2004 on  
 groceries ..... \$148.8 million  
 meals at restaurants ..... \$71.3 million

Value of direct sales, 2002 ..... \$149,000  
 Farmers' markets within 75 miles ..... 8  
 Number of school districts interested in farm-to-school ..... 3

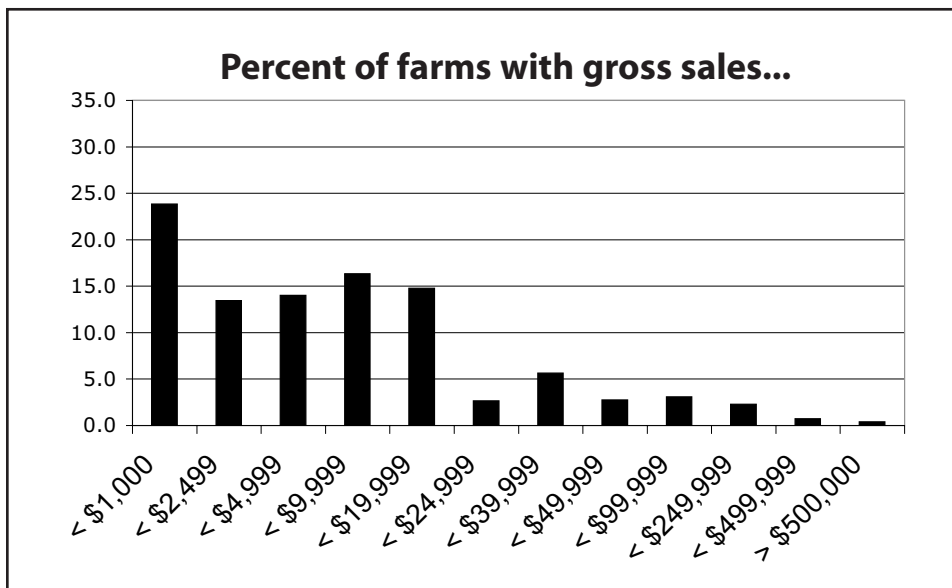
Major crops: cattle, grains, milk  
 Fruit/vegetable crops (on # of farms): pecans(51), apples(7),  
 watermelons(7), cantaloupes(6), sweet corn(5), and many others



NONMETRO - NON FOOD DESERT  
 (See p. 14 for definition of food desert.)

[Bracketed figures in italics are Oklahoma statewide figures for comparison.]

This "snapshot" is a collection of statistics that indicate the level of, and potential for, community food security in the county. It includes indicators of economic well-being for individuals, households, and farms. Also included is an indicator of diet-related health (weight) of county residents. Information showing the potential for increased local food production and sales is also presented.



Muskogee is one of several "county snapshots" in *Closer to Home*. Others are: Carter, Cleveland, Comanche, Creek, Grady, Kingfisher, Kiowa, Major, Oklahoma, and Tulsa.

# Who Shops at Oklahoma's Farmers' Markets?

## CUSTOMER PROFILE

Survey information taken from a 2002 survey of farmers' markets vendors, managers and customers. Complete results available at [www.kerrcenter.com/farmers\\_market](http://www.kerrcenter.com/farmers_market)

### Age:

- 41% are 51 to 65 yrs. of age
- 28% are 36 to 50 yrs. of age
- 14% are 66 to 75 yrs. of age
- 10% are over 75 yrs. of age
- 7% are 21 to 35 yrs. of age

### Gender:

- 79% Female
- 21% Male

### Household Make-up:

- 67% have 2 adults
- 23% have 1 adult
- 19% have children under 18 yrs. of age

### Annual Household Income:

- 60% with less than \$60,000  
(13% with less than \$20,000)
- 28% with \$60,000 to \$100,000
- 12% over \$100,000

### How far they live from their market:

- 67% .5 to 10 miles
- 13% over 15 miles
- 9% less than .5 mile
- 9% 11 to 15 miles

### How customers first learned about their farmers' market:

- 30% by word of mouth
- 24% from a newspaper article
- 16% driving by
- 9% newspaper ad

### How often they shop on Saturdays:

- 32% weekly
- 23% every other week
- 12% once a month



### Indicated the following items were very important when shopping for fresh produce:

- 89% Quality
- 54% In season
- 47% Grown in OK
- 46% Free of chemical residues
- 44% Grown by vendor

### How important having organically grown produce at their market is:

- 51% Somewhat important
- 31% Very important

### How they expect produce at the farmers' market to compare to produce purchase elsewhere:

- 84% Higher quality
- 47% Greater variety
- 44% Same price

### The number one reason they shop at their farmers' market:

- 30% Product quality and freshness
- 28% Supporting local farmer and businesses
- 24% Community involvement

# Who Sells at Oklahoma's Farmers' Markets? Vendors Speak Out

Surveys from *Closer to Home: Healthier Food, Farms and Families in Oklahoma*

- Fifty-six percent of vendors are 55 years of age or younger (compared with the 47% of all Oklahoma farmers who are less than 55 years old).
- Thirty-four percent of vendors are female (compared with the 11% of all Oklahoma farmers who are female).
- Eighty-eight percent are Caucasian (compared with 92% of all Oklahoma farmers).
- Sixty-nine percent said agriculture is their primary occupation (compared with the 55% of all Oklahoma farmers whose primary occupation is farming).
- Seventy percent consider their farmers' market income as part-time or extra income.
- Twenty-five percent consider their farmers' market income as a portion of full-time income along with sales through other outlets.
- Seventy-three percent of vendors have an annual household income below \$60,000.
- Vendors have sold at farmers' markets for an average of almost four and a half years.
- Vendors travel an average of 28 miles to their farmers' market(s).
- Two-thirds said produce was their top selling item at the farmers' market.
- Those who farm grow an average of nearly 6 acres of produce.
- Forty-four percent ranked "receiving retail value for products sold" as their number one reason for attending the farmers' market.
- Over three-quarters are mostly or totally satisfied with their profitability from their farmers' market sales.
- Two-thirds are somewhat or very interested in expanding production for sales through their existing farmers' market.
- Nearly two-thirds are somewhat or very interested in attending a second farmers' market.
- Half are somewhat or very interested in expanding production for sales through other retail outlets.
- Two-thirds would like to have more customers at their farmers' market.
- Fifty percent want more produce vendors at their farmers' market.
- Forty-four percent have found it somewhat or very difficult to find reliable employees.
- Forty percent would like more shade at their market.



# Coupons Worth Clipping

—Doug Walton, from *Closer to Home*

**F**armers' markets increase public access to high quality fresh produce, and when located accordingly, can also be effective at providing better food choices for low-income populations.

Case studies of successful farmers' markets within food-insecure communities across the nation have found these markets greatly increase the availability and quality of fresh produce. This is especially so when these markets participate in the USDA's Farmers' Market Nutrition Program (FMNP).

Since 1992, this national program has helped provide fresh locally grown fruits and vegetables to women, infants and children eligible for WIC benefits. More recently, low-income seniors were added to the list of recipients.

The FMNP distributes coupons to eligible participants through federal grants to states and tribal nations. These coupons, often in \$2 or \$5 denominations, can be redeemed at approved farmers' markets, roadside farm-stands, and Community Supported Agriculture (CSA) programs, in exchange for locally grown fruits and vegetables.

Participating farmers can then simply deposit the government-backed coupons in their bank account, as they would a personal check.

In Oklahoma, the Osage and the Chickasaw tribal nations have successfully applied for and utilized these federal funds. In fact, 85% of the participants in the Chickasaw Nation's WIC Farmers' Market Program indicated they ate more fresh produce than they did before they participated (see sidebar).

Because four counties (Carter, Coal, Garvin and Jefferson) within the Chickasaw

Nation are considered food deserts (see next page for definition), anything to help increase the availability and consumption of fresh produce could be worth its weight in home-grown tomatoes.

As part of the Chickasaw Nation Farmers' Market Nutrition Program, a variety of educational activities take place in conjunction with farmers' markets in Ada, Ardmore, Durant and Purcell.

These efforts include on-site cooking demos and samples using produce from participating farmers, printed recipes distributed at the markets, special events around National 5-A-Day Month and National Farmers' Market Week, and cooking classes at nutrition centers in Ada, Ardmore and Purcell.

"All of our nutrition education programs really seem to help people be more comfortable eating fresh fruits and vegetables," says Jennifer Hayes, Chickasaw FMNP Coordinator. "A lot of what we do is just showing simple ways to prepare these delicious and nutritious foods."

Three other farmer's markets outside the tribal Nation (Noble, McAlester and OSU-Oklahoma City) also have farmers who accept the Chickasaw Nation coupons. Between all seven participating farmers' markets, over \$160,000 of produce was sold through this program in 2004. "By encouraging our people to eat healthier," Hayes says, "we're also helping our farmers, too."

Despite the tremendous success of these programs, Oklahoma itself is not currently one of the 42 states participating in either the WIC or Senior Farmers' Market Nutrition Programs.

"By encouraging our people to eat healthier," Hayes says, "we're also helping our farmers, too."



## In Summary: Chickasaw Nation FMNP

- Seven farmers' markets, 41 farm-stands, 95 farmers
- 4,590 voucher recipients
- Participating seniors receive fifty \$2 coupons for use May through November.
- Participating WIC mothers receive six \$5 coupons.
- \$163,390 in coupons were redeemed by Oklahoma farmers in 2004.
- 70% redemption rate

## WIC (Women, Infants, and Children program) recipients surveyed said:

- 85% ate more fresh produce than before.
- 35% had never been to a farmers' market before participating in the FMNP.
- 97% indicated produce quality at markets was as good as or better than at their local grocery store.
- 45% bought a fruit or vegetable they had never tried before.
- 46% spent money at the market in addition to their FMNP coupons.
- 80% will continue to shop at farmers' markets, even without coupons.
- 93% plan to eat more fresh produce all year round.

# It's a Desert Out There

-Wylie Harris, from *Closer to Home*

Lack of physical access to adequate supplies of healthy, affordable food is often seen as an inner city issue.

While food insecurity and hunger in urban areas are relatively well-publicized, most people in the United States do not realize that a higher proportion of people go hungry in rural areas than in cities.

Contributing to rural food insecurity and hunger is lack of access to supermarkets and supercenters, which researchers have found offer the most affordable range of nutritionally adequate food. Supermarkets are defined as grocery stores with 50 or more employees.

Thirty-two of Oklahoma's 77 counties are classified as food deserts, meaning that at least 25% of their population lives ten miles or more from a supermarket or supercenter. Nine of those counties are

"severe" food deserts, with the entire population living that far from such sources of food.

These food deserts are forming due to shifts in the kinds of food stores, the types of food that they sell, and where they sell it.

Smaller grocery stores are in decline everywhere, and in about the same proportion.

But the larger supermarkets, while also disappearing, are vanishing fastest from rural areas - and taking their fresher produce, larger selections, and lower prices with them.

Their replacements - supercenters and warehouse clubs - are strikingly absent from the most remote rural areas, where no comparably diverse and affordable source of food is appearing to take the place of the grocery stores and

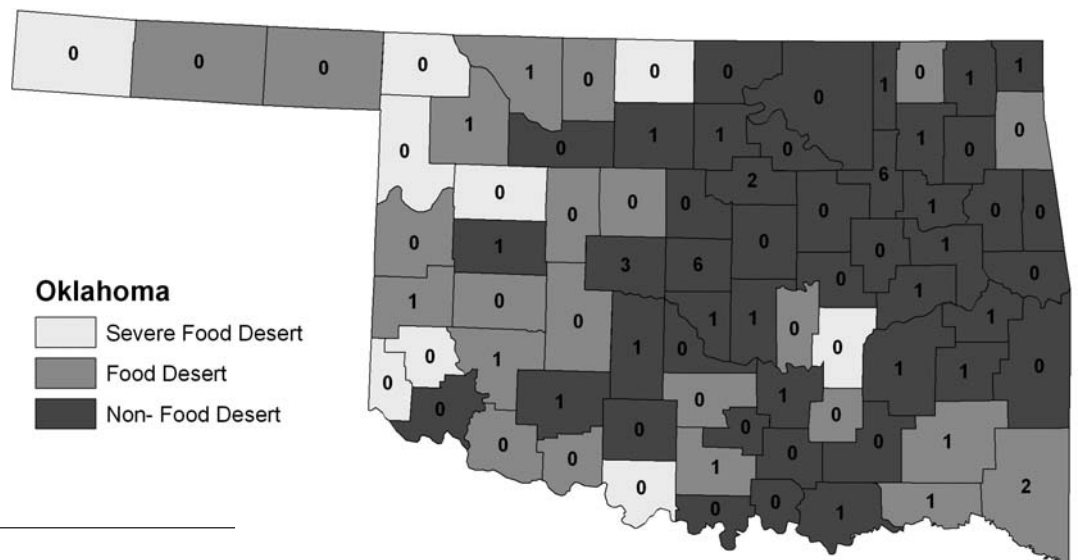
supermarkets.

Instead, gas-station convenience stores and "quick marts" are spilling into the void. These kinds of food stores offer little in the way of fresh fruits and vegetables, whose scarcity in Oklahomans' diets already contributes to so many of the state's health problems, and they often charge higher prices for the little fresh produce that they do carry.

Farmers' markets, CSAs, and home and community gardens can all offer higher quality food, often at a better bargain, than large food retail outlets. In practical terms, though, this definition of food deserts still works for Oklahoma, because these local alternatives to giant food retail corporations are just as tightly clustered around the state's urban centers (see map).

## Food Deserts and Farmers' Market Access

Map by Mary Penick



### FOOD DESERT COUNTIES:

Alfalfa	Cotton	Seminole
Beaver	Delaware	Texas
Beckham	Garvin	Tillman
Blaine	Kingfisher	Washita
Caddo	Kiowa	Woods
Carter	McCurtain	Woodward
Choctaw	Nowata	
Coal	Pushmataha	

### SEVERE FOOD DESERT COUNTIES:

Cimarron	Harmon
Dewey	Harper
Ellis	Hughes
Grant	Jefferson
Greer	

# Busting a Myth:

Farmers' Market Produce is

# Fresh and Affordable

The following items grown by Three Springs Farm and sold at the Tulsa Cherry Street Farmers' Market in 2005 were either cheaper than or comparably priced\* to produce sold at Tulsa supermarkets.

- Basil
- Beets
- Bok Choy
- Green leaf lettuce
- Chard
- Green garlic
- Green onion
- Lacinato kale
- Leeks
- Red leaf lettuce
- Butterhead lettuce
- Romaine lettuce
- Green peppers
- Red bell peppers
- Yellow bell peppers
- Poblano peppers
- Salad mix
- Patty pan squash
- Yellow squash
- Heirloom tomatoes
- Vine-ripened tomatoes

\*25 cents or less per lb difference between the cheapest of the grocery store prices and the farmers' market price.



## Selected produce price comparisons (\$/lb.), Tulsa-area farmers' market and supermarkets.

	FARMERS' MARKET	WAL-MART	ALBERTSON'S	WILD OATS
<b>SPRING</b>				
Romaine Lettuce	\$0.76	\$1.38	\$2.65	\$4.55
Turnips	\$0.91	\$1.46	\$0.99	\$1.99
Green Onions	\$1.63	\$3.26	\$4.21	\$5.96
<b>SUMMER</b>				
Vine Ripe Tomatoes	\$2.74	\$2.84	\$2.99	\$2.99
Red Bell Peppers	\$2.74	\$4.48	\$5.31	\$7.99
Eggplant	\$1.83	\$1.54	\$1.99	\$2.29



Excerpted from "Fresh and Affordable," by Emily Oakley and Mike Appel, from the Kerr Center Centennial Report: *Closer to Home: Healthier Food, Farms, and Families in Oklahoma*. The full report is available on the Kerr Center website, [www.kerrcenter.com](http://www.kerrcenter.com) or by calling 918-647-9123.



This project is supported by the Community Food Projects Program of the USDA Cooperative State Research, Education and Extension Service, grant # 2004-33800-15141

# Basic Skills Workshops

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

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

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

Pre-registration required. Follow the 3 steps below to register.

For more information  
call the Kerr Center  
at 918.647.9123

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



This institution is an equal opportunity provider

## 1 Step 1: Please select one workshop listed below.

- BASIC SKILLS WORKSHOP #1**  
The Kerr Center for Sustainable Agriculture  
Poteau, Oklahoma  
Saturday, May 12th  
*Registration deadline: May 7th*
- BASIC SKILLS WORKSHOP #2**  
Great Plains Technology Center  
Lawton, Oklahoma  
Saturday, June 16th  
*Registration deadline: June 11*
- BASIC SKILLS WORKSHOP #3**  
Connors State University  
Warner, Oklahoma  
Saturday, June 30th  
*Registration deadline: June 25*
- BASIC SKILLS WORKSHOP #4**  
Autry Technology Center  
Enid, Oklahoma  
Saturday, September 15th  
*Registration deadline: September 10*

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



### Kerr Center Basic Skills Workshop

PO Box 588  
Poteau, OK 74953

Include check for \$20 made  
out to Kerr Center.

## 2 Step 2: Select two for the morning session and two for the afternoon session.

Note: Some topics are not available at all locations, so doublecheck your choices.

### MORNING SESSION: PICK TWO

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

- \_\_\_ Sprayer Calibration
- \_\_\_ Soil Testing and Forage/Pasture Identification
- \_\_\_ Chainsaw Demonstration and Safety  
*(Not available at Enid or Lawton)*
- \_\_\_ Fence Building
- \_\_\_ Trailer Backing
- \_\_\_ Compost Basics

### AFTERNOON SESSION: PICK TWO

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

- \_\_\_ Small Engine (mowers, tillers) Repair
- \_\_\_ Organic Vegetable Production
- \_\_\_ Tractor Maintenance and Safety
- \_\_\_ Animal Care (cattle, goats, hogs, sheep,  
horses) and Feed Labels
- \_\_\_ Garden Irrigation

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

Address: \_\_\_\_\_

City, State, Zip: \_\_\_\_\_

Phone: \_\_\_\_\_

Email: \_\_\_\_\_



# Buy Fresh, Buy Local Comes to Oklahoma

– Doug Walton

Oklahoma has joined the ranks of twenty-four other states with groups working collectively to make it easier for consumers to find locally produced foods.

This past December, the Kerr Center received approval to serve as a regional chapter affiliate for the Buy Fresh, Buy Local campaign. As the Oklahoma affiliate, the Kerr Center will help coordinate the campaign's future growth across the state, one community at a time.

The national Buy Fresh, Buy Local campaign is spearheaded and coordinated by FoodRoutes Network (FRN), a non-profit whose mission is "reintroducing Americans to their food – the seeds it grows from, the farmers who produce it, and the routes that carry it from the fields to their tables."

The campaign's rallying cry and title track is simple and concise, encouraging food shoppers and establishments to "Buy Fresh, Buy Local." The goal is also straightforward: to increase individual and community support of local farms and food systems.

But to truly achieve that goal requires a grassroots food and farm activism unlike any seen before.

Yet as Oklahoma's first campaign begins to take shape, this new level of local food activism is already blossoming, opening the way for others to follow. Sustainable Green Country (SGC), a chapter of the Oklahoma Sustainability Network (OSN), is implementing a Buy Fresh, Buy Local pilot project within the greater Tulsa area.

With six current chapters, including those in Norman, Stillwater and OKC, and several more in the works, the Oklahoma Sustainability Network is a

natural partner in the Buy Fresh, Buy Local effort.

According to OSN President Seneca Scott, "OSN will use the strengths of the network to expand the campaign from the Tulsa area across the state of Oklahoma in the coming years."

## Plans Taking Shape

Since last winter, Kerr staffer Doug Walton has worked closely with SGC President Rita Scott and other dedicated volunteers to design and plan campaign activities and guidelines for the 2007 season.

Kamyar Enshayan, coordinator of the University of Northern Iowa's Local Food Project since 1997, has also shared his expertise with the Kerr Center and SGC on this new venture.

In late February, Enshayan came to Tulsa for a full day of consulting with the campaign steering committee, as well as conducting two public forums and a 30 minute interview on the University of Tulsa public radio station. Out of these and other ongoing efforts, plans are taking shape for this year's campaign.

The primary Buy Fresh Buy Local activity for the 2007 season will be the creation and distribution of a Tulsa area Local Food Guide, a colorful and concise listing of farmers' markets and farmers who offer fresh, great tasting, locally grown products directly to consumers within the greater Tulsa area.

The Food Guide will also include helpful information about the seasonal availability of the many diverse foods grown in Oklahoma.

Key to the campaign's success is the initiation of a multi-year social marketing effort to raise public awareness about the availability and benefits of locally pro-



duced foods and the importance of supporting family farmers.

Farmers' market signage, paid advertising and various media and educational events will foster the dialogue necessary for empowering individuals to take action in their households and within their communities.

The campaign is expected to launch in mid-June, 2007.

Of course, these activities will not be possible without the funding and people power to make them happen. While budget estimates are not yet solidified, Sustainable Green Country expects that a one year campaign such as this will require at least \$40,000 for staff time and materials.

As Tim Schlitzer, executive director of FoodRoutes, puts it, "We are working to build a new culture that helps the public understand that a local food system is something that needs their financial support well beyond their purchases."

Efforts are currently underway in the Tulsa area seeking local in-kind printing services and funding assistance from prospective campaign sponsors and local foundations. Initial interest in the campaign looks promising.

### For more information visit:

[www.kerrcenter.com](http://www.kerrcenter.com) and

[www.foodroutes.org](http://www.foodroutes.org)

Or contact:

Doug Walton, Kerr Center,  
[doug.walton@suddenlink.net](mailto:doug.walton@suddenlink.net),  
918.686.6939.

Rita Scott, Sustainable Green Country,  
918.640.5408.

# THINKER, TINKER:

## Tools for Saving Time and Making Money at Sunrise Acres

- Wylie Harris

**"M**y boss' boss used to call me his 'thinker,'" says Robert Stelle. "He'd say, 'I want to do this. Tell me how to do it.'"

At the company where Stelle worked, the bonuses went up as the amount of product that was put out increased. That provided an incentive for productive creativity, to a mind already naturally inclined in that direction.

Now a retiree-turned-market gardener, Stelle finds ample outlets for the same style of thinking. "I find myself in the garden thinking 'How can I grow more, how can I pick more? How can I do this easier? Faster?'"

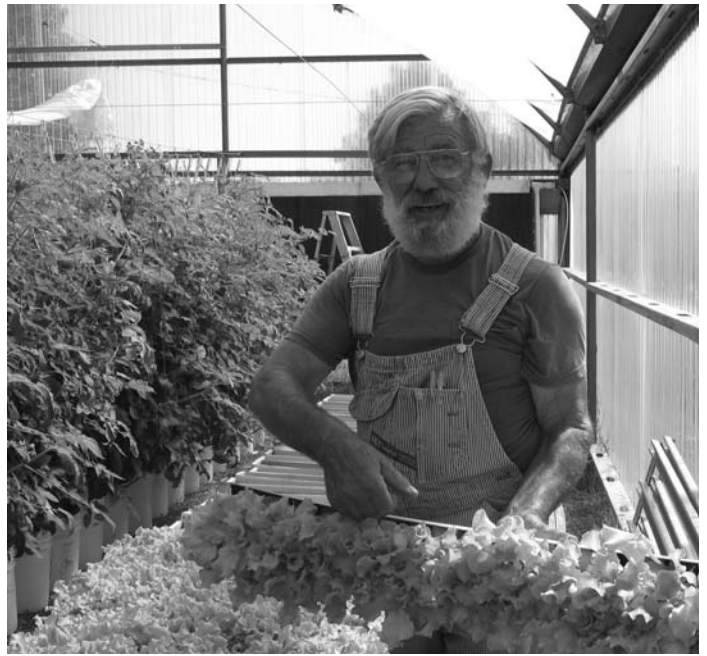
"The current term is 'just-in-time manufacturing.' In the garden, that means having it ready to come off the day before you're ready to sell it."

Together with his wife Barbara, Robert Stelle raises farm-fresh certified organic produce and transplants on their 10-acre farm in Blanchard. They sell at the OSU-OKC farmers' market, through the Oklahoma Food Cooperative, and directly off the farm at Sunrise Acres.

### Tools of the Trade

Their 'thinker's' approach to market gardening is evident in every aspect of Sunrise Acres, but perhaps most visibly in the ingenious array of gadgets that Robert Stelle has devised to save time and energy in the garden (see page 20).

In one of several greenhouses, crawling with a jungle of 6-week-old tomato plants in early October, each one of hundreds of vines is trained to its own individual length of twine suspended from wires stretched overhead. To wind all that twine, Stelle modified an antique hand-cranked grinder that he

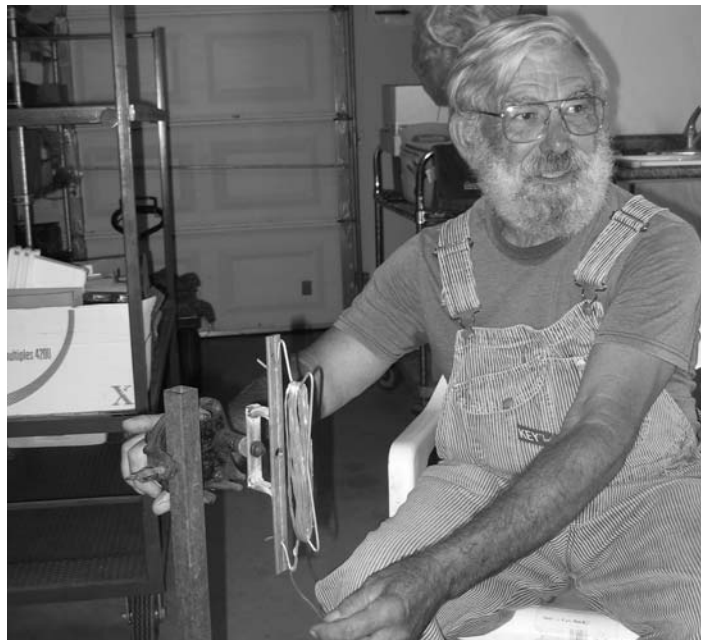


Robert Stelle displays a greenhouse flat of winter lettuce, ready for cutting.

bought for a dollar at an auction.

He replaced the grindstone with a spindle for winding the twine. A single turn of the crank winds the twine around the spindle twelve times – getting all those spindles wound in one-twelfth the amount of time that it would take otherwise.

Stelle mounted his grinder-turned-winder using an old plow disc as a base, leaving the height adjustable so that the machine can be used from a sitting or standing position. "I'm usually on the love seat in the house," he says, "drinking coffee or watching TV."



Robert Stelle demonstrates his homemade twine winder.



Tomato plants trained to their own individual lengths of twine in the greenhouse 'jungle'.

## Double Dipping

The Stelles have been married for four decades, and have had a garden in almost all of those years. In all that time, they've never relied on a chemical approach to gardening.

In 2003, Sunrise Acres was certified organic by the state agriculture department.

"I'm a double-dipper," Stelle says. "You can turn an organic plant into synthetic, but not vice-versa. I can sell to both."

Similarly, the Stelles sell not only fresh produce, but also bedding plants, and an amazing variety of garden vegetable transplants. Their greenhouse space is divided roughly equally between crops for food and plants for transplanting.

These days, they're selling transplants to several other farms that grow food to sell at farmers' markets, as well as to the state agriculture department's plasticulture program for minority and limited-resource farmers.

## Taking the Fall

The Stelles' double-dipping approach applies to the seasons as well. Over the years, they've refined their approach to getting more than one growing season out of a single year. To that end, they rely on an expanding area of greenhouse space, as well as fall gardening.

When the Stelles started their farming business in 1996, they had about a thousand square feet of greenhouse space. By 2002, that area had grown to 6,000 square feet, and the most recently completed structure raised the total square footage to 10,000.

Together, the couple has done virtually all of the construction and improvement work on the farm. Most of the greenhouses were built using salvaged or low-cost materials.

Up until this winter's ice storm took out the 'jungle' greenhouse of container tomatoes, the Stelles were selling them every week at the farmers' market. But for the storm, he'd have had tomatoes to sell all winter long. Fresh greenhouse salad greens are another winter staple at the Sunrise Acres market stand.

But much of what the Stelles grow outside the traditional 'growing season' is also

## Fall Gardening Workshops

The Stelles' next gardening workshops will be a series on fall gardening at different branches of the Pioneer Library System (Cleveland, McClain, and Pottawatomie Counties). For details, see the Kerr Center Events Calendar at [www.kerrcenter.com/HTML/events.html](http://www.kerrcenter.com/HTML/events.html), or visit the Pioneer Library System website at [www.pls.lib.ok.us](http://www.pls.lib.ok.us).

## You Can Contact...

### Sunrise Acres

Robert & Barbara Stelle

405.392.2680

[sunriseacres@att.net](mailto:sunriseacres@att.net)

<http://sunriseacres.home.att.net/>

### OSU-OKC Farmers' Market

405.945.3358

[www.osuokc.edu/agriculture/farmers](http://www.osuokc.edu/agriculture/farmers)

### Oklahoma Food Cooperative

Robert Waldrop

405.613.4688

[customer@oklahomafood.coop](mailto:customer@oklahomafood.coop)

[www.oklahomafood.coop/](http://www.oklahomafood.coop/)

### Oklahoma Plasticulture Program

Micah Anderson

Market Development Coordinator

Oklahoma Department of

Agriculture, Food, and Forestry

405.522.5595

[micah.anderson@oda.state.ok.us](mailto:micah.anderson@oda.state.ok.us)

[www.state.ok.us/~okag/](http://www.state.ok.us/~okag/)

[mktdev-plast.htm](http://mktdev-plast.htm)

outside the protection of the greenhouse – right out in the ground and in the open.

“The carrot is the only vegetable that’ll grow 12 months out of the year – if you keep it from freezing, that is,” says Stelle. The Stelles protect their fall carrot crops from frost with floating row covers, or just hay.

Green beans are another mainstay in the Stelles’ fall garden. “We harvested once and paid for the seed - harvested twice and paid for the time, plus nutrients.”

The Stelles plant radishes every week through the beginning of December, and quit harvesting in January. Other fall crops include mustard greens, turnips, green onions, arugula, and squash.

“With fall squash you don’t have problems with bugs, because the bugs are looking for a place to spend the winter, they’re not looking for a place to mate and have babies,” Stelle explains.

### Teaching the Tricks of the Trade

The Stelles rely on the fruits of their quiet ingenuity for profit, but they freely share its seeds.

“If people see my garden with red dirt and weeds in it, they think, ‘If he can do that, I can do it in my garden at home,’” Stelle grins. The effect is similar, he says, when he tells young women that he canned 21 pints of peppers himself.

“We’re children of the canned society,” he says. “People want to prepare fresh vegetables, but don’t know how.” So, to sell at the farmers’ market, he explains, it’s important to share recipes.

But sharing recipes is only the tip of the iceberg. Robert Stelle puts on a steady round of workshops for Master Gardener groups, natural food groups, and local libraries (see sidebar).

Are the Stelles worried about giving a leg up to the competition by sharing their trade secrets so freely? Not a bit – because, as Robert Stelle explains, ingenuity is only part of the mix.

“I will tell anybody anything, because ninety-nine percent of all people are looking for a way to make money without working. And you cannot do this without working.”

# Garden



The Stelles use homemade carts for loading and hauling their plants and produce to market, and displaying them while there. Each cart has 3 or 4 shelves that sit flat for transport, but tilt up at the rear for display. Five flats will fit on each shelf, and all 4 carts fit in the trailer. The tires have actual tubes, since hard rubber tires don’t give, and thus would increase the likelihood of spills. “Every time I go to market it saves me two hours of hauling flats back and forth,” Stelle says.

When squash bugs start to suck on his tender plants, Stelle sucks right back – with a cheap store-bought handheld vacuum. The vacuum unit is powered by a battery via an automotive cigarette-lighter adapter, and the whole assembly – vacuum, battery, and adapter – is mounted on a small cart originally used for laying stripes. Stelle pulls the cart behind him with one hand while addressing the business end of the vacuum to insect pests with the other.



# Gadgets



With the number of steel T-posts that he relocates all over the garden each season, Stelle needed a way of getting them all in the ground that would be quicker and less tiring than pounding them all in by hand. The solution: the tube of a metal post driver mounted on the front-end loader arm of his tractor. The mount pivots freely on two axes so that the posts automatically go into the ground vertically.



To reduce wear and tear on knees during close-to-the-ground gardening chores like weeding and transplanting, Stelle devised a three-wheeled seat. The width of the wheels is adjustable to fit different row spacings; the height and position of the seat can also be changed. Stelle can propel himself along the rows by pushing off with his feet, or hitch the seat-cart to a vehicle.

# Growing Goats: Meat Goat Workshop, June 2nd

-Wylie Harris

**B**etween 1997 and 2002, meat goat production in Oklahoma doubled, propelling the state to fifth place nationwide. With such rapid growth, the demand for information on goat management is intense.

On June 2nd, Oklahoma goat producer and OSU Extension Agent J.J. Jones will satisfy some of that curiosity with a meat goat workshop at his farm near Ada.

Sponsored by the Kerr Center in cooperation with the USDA Risk Management Agency, the free workshop is meant both for newcomers to goat production as well as established goat producers.

In fact, both of those groups are represented at the Jones farm. Jones and his father own adjacent acreages, and though they are separate entities, they run the goat operation together. The father has been keeping goats for more than 15 years, while the son got into the business only two years ago.

"You'll get the old school versus the new school," at the workshop, Jones jokes.

For example, over the years, the two men have tried many different approaches to fencing, all of which will be on display and under discussion at the workshop – from wire panels, to electrified fence, to wire fence.

On the father's side of the property, old barns have been converted to kidding barns, while a new 30' by 40' concrete-floored barn adorns the son's portion.

While Jones' father originally had Spanish and "brush" goats, the pair



James and Johnathan Jones helping out with feeding.

currently run Boer goats, both fullblood with papers, as well as crosses, or "grade" goats.

Between father and son, there are 80-90 mother goats on a total of 35 acres. The goat pasture is usually divided into 9-10 separate paddocks.

According to Kerr Center Stewardship Ranch Director Alan Ware, the workshop program will consist of a talk about the Jones' operation and how they started, a basic goat care and marketing session, and a discussion of the new goat handbook (forthcoming from OSU extension).

"Folks getting into the goat business usually have little or no ag experience," Jones explains. As such, portions on the workshop will focus on the basics of management – "when, why, and how things are supposed to be done," as he puts it.

The goat workshop will run from 9-2. **Preregistration Required.** Preregister by

May 28 to get lunch. To register call the Kerr Center at 918.647.9123.

## **DIRECTIONS:**

### **From I-35:**

Take exit #66 to Highway 29 eastbound. Go through Wynnewood and continue 12 more miles on Highway 29 until the stop sign where it intersects with Highway 177. Continue straight (east) through the stop sign. After 2 miles the pavement ends. After the pavement ends, the Jones' farm is at the 3rd and 4th driveways on the right (south).

### **From Ada:**

Take Highway 1 through Roth. Turn west (right) onto Pontotoc Avenue. After crossing the railroad tracks, Pontotoc becomes Dolberg Road. Cross over the Chickasaw Turnpike, then turn north onto county road 1650. From that turn, go 1 mile north, 1 mile west, one mile north, and 0.3 miles west.

# 2007 Meat Goat Forage Buck Test

With the growing importance of meat goats in Oklahoma agriculture, it's necessary to know which lines perform best on pasture.

With that goal in mind, the Kerr Center and the OSU Cooperative Extension Service are conducting the 2007 Meat Goat Forage Buck Test.

"The rationale behind the Oklahoma Meat Goat Forage Buck test is to begin to identify individual bucks, as well as their sires and dams, that carry genetics expressing strong traits important in commercial meat goat production," said test manager Mary Penick, livestock specialist at the Kerr Center.

"Additionally, this test will allow breeders to compare genetics within their herd to make better management decisions as to herd lines that will produce profitable progeny for future herds. This test will also provide valuable information for all goat producers and the public."

Goat producers wishing to test their bucks' performance on forage are invited to enter bucks in the test, which will run from mid-July until the end of October. Fee is \$100 per buck, and nominations are due by June 15, 2007.

For details, nomination forms, and questions, visit the Kerr Center website at [www.kerrcenter.com](http://www.kerrcenter.com), or contact:

Mary Penick  
918.647.9123 Fax: 918.647.8712  
E-mail: [mpenick@kerrcenter.com](mailto:mpenick@kerrcenter.com)

Dr. Dave Sparks, D.V.M.  
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Extension Service  
918.686.7800 Fax: 918.686.7819  
E-mail: [dave.sparks@okstate.edu](mailto:dave.sparks@okstate.edu)

Oklahoma State University Cooperative  
Extension Service & The Kerr Center for  
Sustainable Agriculture, Inc.

## 2007 Oklahoma Meat Goat Forage Buck Performance Test

### NOMINATION FORM

Nomination Deadline: June 15, 2007

NAME(S): \_\_\_\_\_

ADDRESS: \_\_\_\_\_  
\_\_\_\_\_

PHONE: \_\_\_\_\_

EMAIL: \_\_\_\_\_

NUMBER OF BUCKS: \_\_\_\_\_

BREED: \_\_\_\_\_

It is hereby understood that all bucks submitted by me, \_\_\_\_\_, to the 2007 OKLAHOMA MEAT GOAT FORAGE BUCK PERFORMANCE TEST are at my own risk and that neither the Oklahoma State University Cooperative Extension Service nor The Kerr Center for Sustainable Agriculture, Inc. nor any persons employed by them will be liable in the event of death, sickness or injury to the animals entered into the above programs. I consent to the publication of data relating to the performance of bucks which I enter.

I have read the rules of the performance test and agree to abide by them.

SIGNED: \_\_\_\_\_

Please send your signed nomination form  
and \$100/buck fee to:

### Oklahoma Forage Buck Performance Test

c/o The Kerr Center for Sustainable Agriculture, Inc.

Mary Penick  
PO Box 588  
Poteau, Ok 74953

# Natural Growth, Local Success:

## Natural Farms Field Day, June 12th

-Wylie Harris

**O**n June 12th, one of the most dynamic enterprises on Tulsa's local foods scene will share its story at an on-farm field day.

Farmers, ranchers and members of the public are all invited to attend this free event from 6-9 p.m.

From its beginnings as a beef cattle operation, Natural Farms has expanded through sales at the Cherry Street Farmers Market, through the operation of their own on-farm processing facility, to the opening of two natural-foods stores/restaurants in Tulsa.

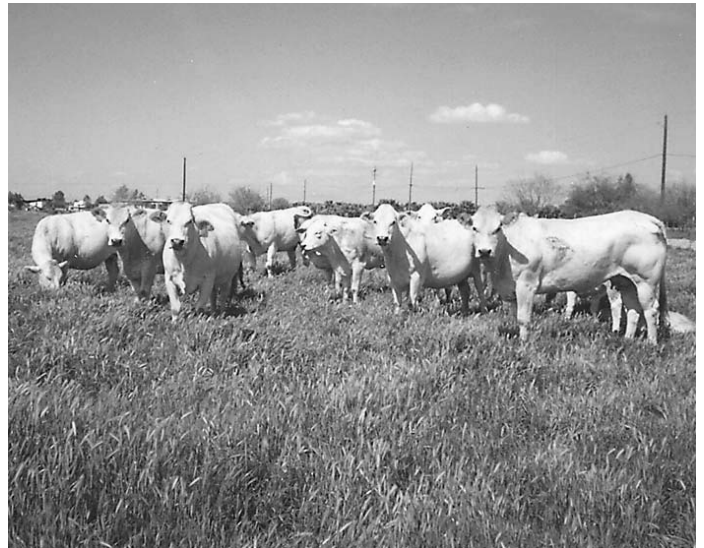
At every step along that path, Natural Farms has worked hard to bring its customers the healthiest options in natural and organic food, from the most local sources available. In fact, Natural Farms is always looking for suppliers of organic produce as well as natural meats, and invites interested producers to attend the field day.

Jeff and Chris Emerson, Natural Farms' owners, began raising animals many years ago. The family raises Piedmontese beef, fattened on certified organic grains, without synthetic hormones, antibiotics, or pesticides.

More recently, Natural Farms opened its own USDA-inspected processing facility. The processing plant lets the Emersons direct-market their own beef "from the pasture to the plate."

The Emersons also offer their own all-natural chicken meats, as well as buying naturally raised hogs from another local producer for processing in their own plant. Two large smokers expand the range of meats that they offer to include smoked hams, briskets, jerky, and nitrite-free sausages.

"Just because it is healthy doesn't mean you have to sacrifice taste, tenderness, or quality!" they proclaim.



### Market Magic

Six years ago, even before opening their own processing facility, Natural Farms began selling its meats at Tulsa's Cherry Street Farmers Market.

Natural Farms also opened a retail store in Tulsa, at 420 S. Utica. This retail outlet is unique in that it sells primarily local meats raised and/or processed by Natural Farms. Some other items, such as a selection of different kinds of fish, are also available. In addition, the firm is set up to wholesale most of its products to other retailers.

Natural Farms also sells through the Oklahoma Food Co-op, as well as operating a 'co-op' of its own. In the Natural Farms 'co-op,' members pay a \$45 annual fee for the ability to order two weekly share bags – one of meat items, and one of produce. The bags are sized to feed one or two people for a week.

The weekly price of each bag is \$29.50, or both together for \$57. In late April, for example, the meat bag contained chicken breasts, tenderized steak, chicken sausage, cod filets, a dozen eggs, and ground beef. Contents of the produce share bag vary seasonally, but are always organic.



The store's service includes free delivery within 30 miles of Tulsa on any order of \$65 or more. Natural Farms weekly share bags can be delivered within the same range, for an extra \$8 fee.

## Growing Local Links

As much as possible, the Emersons try to source the store's offerings from other local farmers and ranchers, while still maintaining their own standard of natural/organic quality.

"We try really hard to support Oklahoma growers who do things the correct way - not using any growth hormones, steroids, etc.," Jeff Emerson says.

However, local suppliers are scarce enough that even during the growing season, the Emersons still buy over half the produce that they sell from sources outside the state.

To help change that situation, they encourage specialty crop growers, as well as producers of natural/organic chicken and turkey, to investigate the possibility of selling to Natural Farms.

With the success of their original store, Natural Farms recently opened a second retail outlet in south Tulsa, at 91st and Sheridan. The new store includes a deli, as well as an upscale restaurant.

The restaurant is open on Friday and Saturday nights by reservation, and features the culinary expertise of chef Michael Cook. Recent menu items included tomato soup and spinach artichoke dip among the starters, entrée choices like Piedmontese ribeye steak, pan-fried tilapia, and chicken picatta, and dessert choices including crême brulee and organic vanilla ice cream.



## Spreading the Word

With all these diverse undertakings, from raising, processing, and retailing their own natural foods, to building demand and markets for other local farmers and ranchers, the Emersons are doing as much as seems humanly possible to foster the growth local food in the Tulsa area.

They'll be sharing their insights on that process, along with a view of the opportunities it presents for both producers and customers, at the June 12th field day.

The audience they hope to draw includes ranchers interested in raising and marketing natural meat products.

In addition, producers of natural and organic poultry, as well as fruits and vegetables, are also welcome and encouraged to attend, to learn about the rapidly growing demand for those items within wholesale markets.

Also invited are supporters of natural foods and local agriculture who want to visit a local ranch and learn about the selection, preparation, and nutritional benefits of naturally raised meat products.

All field day attendees will take a tour of the Emersons' farm, highlighting their controlled grazing of Piedmontese cattle and Boer goats, and then enjoy some locally grown snacks.

Producers will then embark on a more comprehensive tour of the ranching operations, while others will receive shopping and cooking tips on natural meat products, as well as information about current happenings at the Natural Farms Grocery Store and Restaurant.

To reach the Emerson's ranch from Tulsa go to S. 161 St. Look for 43rd E. Avenue (between Harvard and Yale) and turn south. Go to the end of the road to a double white gate.

From outside Tulsa, go on highway 75 to 161st South and go east. Then follow directions above.

This event is sponsored by the Kerr Center in cooperation with the USDA Risk Management Agency. For more information, call either store (918.779.6300 or 918.583.5354), or call the Kerr Center at 918.647.9123.

To learn more about Natural Farms, visit their website at [www.naturalfarms.com](http://www.naturalfarms.com).

# A Different Kind of Fish Story: Aquaponics and Vermicompost at Urban Harvest

– Wylie Harris

“Give a man a fish, and he’ll eat for a day; teach a man to fish, and he’ll eat for a lifetime.” Since its inception, the Urban Harvest Program at the Regional Food Bank of Oklahoma City has taken its guidance from that old proverb.

Now, though, Urban Harvest is taking it literally, and even going a step further. The program isn’t teaching people how to catch fish, but rather how to raise their own finned fare for the table, as well as rich food for the soil.

## Eating for a Lifetime

Urban Harvest’s mission, explains director Bruce Edwards, is to assist the food bank in obtaining and distributing fresh produce.

Urban Harvest has gleaning programs that gather crops directly from the fields, and on-site gardens to grow produce directly. Both efforts help with the eating-for-a-day part of the fish proverb, adding over 100,000 pounds of fresh fruits and vegetables into the Food Bank’s offerings in a single year.

That sounds like a whopping amount of produce, but Edwards says it’s still “miniscule” compared to the quantities that the Food Bank brings in from commercial donors.

That’s why he’s focusing Urban Harvest’s efforts on the second half of the proverb, tackling the eating-for-a-lifetime side of the equation.

Urban Harvest administers and supports Oklahoma City’s twenty community gardens, where school kids, church congregations, seniors, and other community members grow food for themselves as well as for the needy in their midst.

The program also maintains demon-

stration gardens on the Food Bank’s grounds, using them for workshops to help ever-larger numbers of Oklahomans begin to produce more of their own food. (See *Field Notes*, Summer 2005.)

It’s in that capacity – demonstrating the immense potential productivity of small-scale home gardens – that the swimmers and wrigglers make their appearance.

## Spreading the Word – and the Worms

A few years back, Edwards attended the Community Food Security Coalition’s annual conference at a place called Growing Power, in Milwaukee. (See sidebar.)

At Growing Power, fish are raised in tanks in turn-of-the-century greenhouses. The water, rich with nutrients from fish waste, is circulated to nourish the roots of fresh vegetables – a system called “aquaponics.”

The resulting produce is sold to the community. Vegetable waste from it goes into large bins where worms convert it to a fertilizer that nourishes the next crop of vegetables.

It’s a self-contained system for growing protein and vegetables from what would otherwise be waste products, all right in the middle of a city.

Edwards was fascinated. After assuming the director’s post at Urban Harvest, he went back to Growing Power for an intensive workshop on their aquaponics and vermiculture systems, and decided to mimic the model in Urban Harvest’s demonstrations.



## A Fishy Feeling

At first glance, Urban Harvest’s fish-farming setup doesn’t look like much: three shallow troughs stacked one above the other and filled with plants, with a 300-gallon tank of water on one end.

However, the parts are all connected, with each component turning another’s waste into food.

The tank holds 100 tilapia, a kind of tropical fish with tasty, nutritious meat. Just like aquarium fish, the tilapia excrete wastes directly into the water, and would rapidly poison themselves without some sort of filter.

In this case, the plants themselves act as the filter. Water from the tank spills into the lowest trough, to be pumped to the highest trough, and then run back through the middle trough.

All along the way, the nitrogen in the fish waste becomes plant food, producing lush growth and abundant harvests. From the end of the middle trough, the plant-filtered water spills back into the fish tank, aerating the tank in the process.

The only external input is food for the fish, and soon that too will come from the same system, as soon as a tank for growing duckweed is added.

A hundred fish may not sound like

much, but the current system is just a prototype. The ultimate design, says Edwards, will hold thousands of fish at a time. At that point, the current prototype will become a fry tank, allowing Urban Harvest to breed its own replacement fish.

On the other hand, since the project is about teaching people – many of whom have limited space – how to grow their own food, he also has plans for a simple, small-scale version of the system using three 55-gallon barrels.

## A Squirmy Subject

Say “fish,” and the next word to pop into many an Okie’s mind might well be “worm.” Sure enough, Urban Harvest grows worms as well as fish – but the connection between the two isn’t quite as direct as a barbed hook.

Instead, the program feeds piles of food waste to bins full of worms, which churn the waste into a high-nutrient form of compost. The worms’ droppings, or ‘castings,’ are ideal as an organic fertilizer, or as an ingredient in the potting soil for the vegetable part of the aquaponics system.

“The worms are my cattle,” Edwards says. “All winter, they’ll be munching away.”

Vermicomposting, as this process is called, has been a part of Urban Harvest’s bag of tricks for some time, beginning with four bins. That initial setup yielded over 1,000 pounds of compost for the spring of 2006, and kept thousands of pounds of food waste out of the landfill.

Now, thanks in part to a Boy Scout Eagle project, the number of bins has climbed to a dozen, sheltered under a salvaged steel pole building.

Despite those impressive numbers, Edwards says, much of the worm bins’ value is educational.

“The kids are either tickled, or grossed out,” he grins. Either way, the sight of wriggling worms turning food waste into rich fertilizer creates a lasting impression.

Earthworms, long regarded as gar-

deners’ friends, have gotten a bad rap lately, as scientists discovered that certain non-native earthworm species are severely impacting the ecology of forests in more northerly portions of the U.S.

However, vermicomposting systems like the one at Urban Harvest are normally well contained. Even if the worms did escape into the wild, the species most commonly used in composting – *Eisenia fetida*, commonly known as the “red wiggler” – does not normally thrive in natural habitats in the southern U.S.

## Teaching by Example

Fish tanks watering vegetable gardens, and worms creating fertilizer, aren’t the first things that people imagine when they think of food banks.

But then, Urban Harvest is all about redefining the role of the Food Bank – assisting the critical work of helping the people who come to the Food Bank, but also adding ways to help those people help themselves.

Urban Harvest also practices what it preaches, choosing projects that make the program as self-sufficient as possible.

For instance, with tilapia becoming an increasingly common item on in the seafood section of restaurant menus, Edwards has an eye toward selling the fish and herbs harvested from the aquaponics system to local chefs, as a means of making the Urban Harvest program more self-supporting financially.

Though he currently has no plans to sell worms or worm castings, the vermicomposting project helps Urban Harvest save money on the supplies it needs to start plants for the community gardens, while cutting down on the Food Bank’s waste stream.

Like the components of the aquaponics system, Urban Harvest’s projects support each other, turning waste into wealth and making the most of the space and resources available.

That’s one fish story with a hook in it for everyone.

## Growing Power

Growing Power is a nonprofit organization and land trust located inside the city of Milwaukee, Wisconsin. Growing Power’s 2-acre site is the last remaining greenhouse from what was, in the 1920s, a whole district of hothouses supplying out-of-season produce to Milwaukee.

Growing Power’s programs aim to restore that kind of neighborhood-scale agriculture. Its mission is to inspire “communities to build sustainable food systems that are equitable and ecologically sound, creating a just world, one food-secure community at a time.”

To fulfill its mission, Growing Power conducts training and networking, as well as producing food.

In the training department, Growing Power’s 2007 workshops include “Growing Your Community Food System ‘From the Ground Up,’” and “Growing Power — Growing Farmers! Commercial Urban Agriculture Training Program.” In addition, the organization conducts a variety of smaller workshops, tours, and maintains an active youth program.

Growing Power’s networking efforts encompass “everything from assisting farmers to helping communities that want to transform city lots into gardens and urban farms.” As part of that, Growing Power is a member of the Rainbow Farmers Cooperative, a group of Chicago-area farms that market to a number of restaurants and university food service in the region.

Through the Rainbow Co-op, Growing Power also participates in the Market Basket program, a weekly year-round produce delivery service with projected deliveries of 2 million pounds in summer 2007 to customers in Illinois, Wisconsin, and Michigan.

For more information, visit [www.growingpower.org](http://www.growingpower.org).

# CALENDAR: SUMMER WORKSHOPS

## WORKSHOP: MEAT GOATS\*

June 2, 9 AM – 2 PM,  
J.J. Jones farm, Ada

For producers who already have or are considering getting meat goats, this workshop will feature a discussion of the forthcoming OSU Extension goat handbook, a tour of the Jones' meat goat operation, and basic goat care and marketing. Lunch is included; deadline for registration is May 28. (See p. 22.)

## FIELD DAY: NATURAL FARMS\*, June 12, 6 – 9 PM,

Emerson Ranch, Bixby  
For both producers and buyers of natural meat products, this field day will showcase the Emersons' cow-calf operation, featuring controlled grazing of Piedmontese cattle and Boer goats. Organic/natural poultry

and specialty crop producers interested in selling to the Natural Farms Grocery Store and Restaurant are also encouraged to attend. (See p. 24.)

## DEADLINE: Nominations for Meat Goat Forage Buck Performance Test, June 15

Nomination forms are due on this date from goat producers wishing to test their bucks' performance on forage in a trial run by the Kerr Center and the OSU Cooperative Extension Service. For details and forms, visit the Kerr Center website at [www.kerrcenter.com](http://www.kerrcenter.com). (See p. 23.)

## WORKSHOPS: BASIC SKILLS\*

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

Registration is \$20 per person and this includes lunch and materials. Each workshop will be limited to 30 participants. Each participant will choose 4 different workshops for the day, from topics including soil testing and forage/pasture identification, fence building, composting, small engine repair, organic vegetable growing, basic animal care, and many others. Workshops run from 9 AM to 3:30 PM and are offered at the following locations and dates:

■ **May 12 - Poteau**  
Kerr Center

■ **June 16 - Lawton**  
Great Plains Technology Center

■ **June 30 - Warner**  
Connors State College

■ **September 15 - Enid**  
Astry Technology Center  
(See p. 16 for registration deadlines and more info.)

## Details on these later summer/fall events will follow in future newsletters:

**Workshop: Direct Marketing\***  
August 2nd, Tulsa area

**6th Annual Oklahoma  
Grazing Conference (Dollars  
and Sense)\***  
August 16-17, Oklahoma City

**Workshop:  
Organic Gardeners\***  
September 9, El Reno

**Farm Fest  
Overstreet-Kerr  
Historical Farm**  
October 13th



\*These events presented in cooperation with the USDA Risk Management Agency



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