Local Food Outreach and Education:
The Role of Arkansas County Extension Agents

by Amanda Philyaw Perez, MPH
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ACKNOWLEDGMENTS

I gratefully acknowledge the University of Arkansas System Division of Agriculture, Cooperative Extension Service County Agents for their participation in this local food program assessment. I am also very grateful to Dr. Martha Phillips, Dr. Stacey McCullough, Dr. Rick Cartwright, Dr. Ron Rainey, Dr. Martha Ray Sorter, Sharron Reynolds, Robert Goodson and Beth Phelps for guidance and support during this project. I would like to thank Kristin Higgins for editorial support and Kristen Keifer for providing data entry and editorial support.

This research was completed to meet requirements for a doctorate level practicum course. This report is intended to highlight opportunities to support Extension County Agents in Arkansas and is not a representation of all community-based or university-led efforts to develop local food systems, improve nutrition, increase access to healthy food, or reduce obesity in Arkansas.

UNDERSTANDING THE LAND GRANT UNIVERSITY SYSTEM

The University of Arkansas System Division of Agriculture is one of more than 100 public, land grant universities originally established through the Morrill Acts of 1862 and 1890 to provide research and education for food production. The Smith-Lever Act of 1914 was established to expand land grant capacity and to provide a system to translate research to the public through extension education and outreach programs.

The UA Cooperative Extension Service is part of the University of Arkansas System Division of Agriculture. With offices in all 75 counties, faculty and staff provide educational programs and research-based information to the people of Arkansas. From agricultural programs to family financial management to youth education, these educational programs have immediate and practical applications.

The Arkansas Agricultural Experiment Station is the research component of the Division of Agriculture. The Experiment Station is the primary research support agency for Arkansas farmers and ranchers, food processors, related industries and consumers. Research topics also include issues that impact the families, communities and natural resources associated with Arkansas agriculture.

Cover photo: Western Hills Elementary, Little Rock AR school garden program students.
EXECUTIVE SUMMARY

Local food systems development is a growing trend across the United States with many states expanding efforts to increase local food through the development of farmers markets, community gardens, farm to school programs, food hubs and other related activities. Arkansas is seeing increased interest in local food system development and increased demand for technical assistance and education. This report reviews the requests coming in to the University of Arkansas, Division of Agriculture, County Extension offices. A summary of this report is provided here.

A study was conducted in 2015 with Arkansas Extension Agents to better understand the level of support being provided on local food related projects or activities. Agents attending district director’s conference (n=123) completed a 19-item paper survey.

County agents reported being involved in a range of Division local foods events, programs or workshops as attendees or facilitators, including the Sustainable Strawberry Initiative, Backyard Poultry workshop, Farm to School Procurement training, Home Grown Profits, Local Foods Local Places, Local Foods and Farmers Market Grant workshops, or the U of A Food Innovation Centers tours or workshops on the Fayetteville and Pine Bluff campuses.

Most agents (63%) reported receiving requests for support to develop farmers markets, on-farm markets (24%), community supported agriculture programs (7%), and mobile markets (2%).

County agents were asked what role the Division should play in supporting Arkansas farmers and local food. Table 1 includes a compendium of recommended future areas of support. Participating county agents also reported being involved at some level with connecting farmers to local restaurants or stores (25%) and to institutions (27%) such as schools, churches and hospitals. More than half of all county agents surveyed reported providing education, training or support for school and community gardens. County agents stated the greatest infrastructure needs for supporting local food system development should include establishing or expanding capacity of local distributors, farmers markets, certified kitchens and farmer cooperatives.

Table 1: Outreach or education should address:

| Marketing and promotion |
| Best specialty crop production practices |
| Value-chain and distribution |
| Farmers market development and management training |
| Development of cooperatives |
| Market policies and regulations |
| Food safety policies and regulations |
| Promote value of local markets |
| Sustainable agriculture |
| Provide market analytics |
| Production education with field days |
| Collaborative projects for Ag and FCS |
| Conduct education in winter |
| Provide SNAP training for farmers |
| Inform of resource or grant availability |
INTRODUCTION

Local food systems development is a growing trend across the United States with many states expanding efforts to increase local food through the development of farmers markets, community gardens, farm to school programs, food hubs and other related activities. These changes come in response to decades of research showing that the U.S. population has poor nutrition, chronic disease, obesity, and has lost the understanding of how and where food is produced. Local and regional food systems development has been shown to improve access to healthy food, promote community and economic development, and encourage healthy lifestyles.

Arkansas has seen a growing interest in supporting local food systems changes in the last decade, but lags behind many other states. The number of farmers markets and community gardens has increased in most Arkansas counties; several schools and local producers are now participating in farm to school programs, and some communities are currently seeking support for establishing centers or sites to encourage local food distribution. To support further development, it is important to better understand the current demand for support for these types of activities throughout the state. A survey was developed and administered to county extension agents in Arkansas to better understand the demand for local food system development educational and technical assistance. Findings are reported here.

UNIVERSITY OF ARKANSAS SYSTEM
DIVISION OF AGRICULTURE

The University of Arkansas System Division of Agriculture (Division), through research and the Cooperative Extension Service (CES), serves communities in all 75 counties of the state by housing a local office and county agents to provide research-based education, outreach and technical assistance. The Division provides this support on a broad range of issues such as agricultural production and processing, environmental and natural resources sustainability, healthy eating and access to healthy food, opportunities for families and youth and support for community and economic development. Much of this work directly supports local food systems development; however, no compendium of efforts exists. Thus, it is not clear what programs or activities are operating in counties or the degree to which counties are operating similar programs.

This report aims to provide a better understanding for this growing demand for support through county extension offices by investigating the types of community requests for support,
As of 2012, about half of all U.S. adults—117 million people—have one or more chronic health conditions. One of four adults has two or more chronic health conditions.18

WHY LOCAL AND REGIONAL FOOD?

Food System Change Approaches

Local and regional food systems change efforts that create alternative “networks of processes, actors, resources, and policies required to produce, process, distribute, access, consume, and dispose of food” outside and in partnership with the conventional industrial agricultural system are needed and many innovations are emerging.15 These systems changes may address inadequate access to and consumption of healthy foods,16 and communities across the country are exploring approaches to tackle these issues.17 A range of options exists for alternative sources of affordable, healthy, and culturally appropriate foods, including the sale of fruits and vegetables in discount value stores, constructing community gardens to educate on production, and providing mobile farmers markets that bring food closer to where people live, work and play.18

So why are the changes important?

Health

A significant and growing proportion of Arkansas’ population suffers from chronic diseases such as Type 2 diabetes, heart disease, cancer, and illnesses associated with poor dietary intake, limited physical activity and obesity.19,20

As of 2012, about half of all U.S. adults—117 million people—have one or more chronic health conditions. One of four adults has two or more chronic health conditions.18

- Arkansas ranks 49th in overall health outcomes.21
- 80% of Arkansans do not eat the recommended amount of fruits and vegetables.22
- About two in three adults are considered overweight or obese in Arkansas.23
• About one in three children ages 2 to 19 years are considered overweight or obese in Arkansas.²⁴

Extension, public health and medical professionals continually look for evidence-based change approaches to support healthier lifestyles. Increasing consumption of fruits and vegetables, however, continues to be a critical behavior change necessary to improving health and reducing risks for chronic disease.²⁵, ²⁶ Comprehensive local food projects offer an opportunity to address many of these health issues by connecting communities to healthy, local food.

COMMUNITY AND ECONOMIC DEVELOPMENT

Local and regional food systems offer opportunities for community and economic development. Many communities consider a farmers market as not only an economic driver for local producers, but often as business incubators and anchors for increasing foot traffic for local businesses that help create a sense of community and culture in a neighborhood.²⁷ Local food is playing a leading role in neighborhood, downtown and Main Street development efforts occurring in towns and cities across the United States.²⁸

Of the $7 billion that consumers spend on food annually in Arkansas, $6.3 billion goes to purchase food grown in other states.²⁷

If Arkansas consumers purchased just 15% of the fruits and vegetables they consume at home from Arkansas farmers, nearly $100 million in new income could be generated for Arkansas fruit and vegetable producers.²⁹

Farm to school programs are also considered a significant opportunity for economic development. A school making local food purchases can help farmers expand production capacity across growing seasons and this increased local purchasing may contribute to a boost in the local economy.³⁰, ³¹, ³² If Arkansas public schools sourced 15% of the food purchased for meals from in-state producers, $14 million in new income could be generated for Arkansas farmers.³³ Arkansas child nutrition directors spend a combined $95 million each year on food for public school children.³⁴

The University of Minnesota Cooperative Extension Service conducted an economic impact analysis on shifting a portion of the $4.2 million school food budget in the central region of Minnesota to local purchases. They found a potential annual economic impact from the shift to local food ranging from $20,000 for a monthly one-time specialty local food item to $427,000 for sourcing a large amount of easily accessible products served over the year for central Minnesota schools.³⁵
Land grant university (LGU) research and extension outreach and education services are increasingly supporting the growing local food system movement. Collaborative networks across Extension services have developed in recent years. A large network of Extension professionals participate in the eXtension Community, Local and Regional Food Systems (CLRFS) Community of Practice, which works on a range of program development areas and research that address the food system supply chain, food preparation, nutrition education, agricultural policy, food security, food justice, sustainability, strategic planning and community development.

Federal agencies such as the U.S. Department of Agriculture, U.S. Department of Health and Human Services, Environmental Protection Agency, along with many state agencies are supporting land grant institutions involved in the research and development of local food systems. There is an opportunity for LGU’s to leverage national resources to provide education and technical assistance for food system development through local initiatives.

**METHODOLOGY**

This study examined Arkansas’ extension agent education, outreach and technical assistance request to better understand how and whether extension is being engaged to support efforts to develop local food systems in the state’s 75 counties.

An e-mail was sent to faculty and specialists within the University of Arkansas System Division of Agriculture for information about existing programs or projects related to food system development. Responses were used to compile a list of statewide programs that are typically implemented by county agents at the local level.

CES manages a monthly reporting system, known as the Arkansas Information Management System (AIMS), to collect information on projects or activities completed by county agents. County agents are charged with providing outreach and education programs on agricultural production and processing, environmental and natural resources sustainability, healthy eating and access to healthy food, opportunities for families and youth and support for community and economic development. A review of AIMS data and the list of current Division programs and projects informed the survey design.

A 19-item paper survey with multiple choice and open-ended response options was administered to county agents at three district director’s conference held in extension’s three regions of the state; Ozark, Ouachita and Delta. Data were entered and analyzed using the Qualtrics survey tool and descriptive statistics are reported below.
RESULTS

Surveys were collected from 123 county agents representing Agriculture (51%), Family and Consumer Sciences (37%), and 4-H, EFNEP, Water Quality and other (12%). Most of the county agents surveyed have worked for Extension for more than five years, see Figure 1. County agents were asked about agent type and years of service to help us better understand the current makeup of agents in the counties and their experience levels in their positions.

County Agent Years with Extension

<table>
<thead>
<tr>
<th>Experience</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Less than 1 Year</td>
<td>6%</td>
</tr>
<tr>
<td>1-3 Years</td>
<td>20%</td>
</tr>
<tr>
<td>3-5 Years</td>
<td>9%</td>
</tr>
<tr>
<td>5-10 Years</td>
<td>21%</td>
</tr>
<tr>
<td>More than 10 Years</td>
<td>44%</td>
</tr>
</tbody>
</table>

Figure 1

DIVISION FACULTY AND SPECIALISTS PROGRAMS

The Division participates in national and state programs to provide outreach and education to producers and community leaders about connecting local farms to new markets. Figure 2 depicts the involvement of county agents in the following programs as attendees or facilitators, Arkansas MarketMaker, Arkansas Grown, the Local and Grown Smart Phone Application, Arkansas Farmers Market Association and Agritourism Education programs.

Photo: Agriculture Department and Cooperative Extension Service host farmer conversation at local food restaurant in Little Rock, AR
County agents reported being involved in a range of Division local foods events, programs or workshops as attendees or facilitators, including the Sustainable Strawberry Initiative, Backyard Poultry workshop, Farm to School Procurement training, Home Grown Profits, Local Foods Local Places, Local Foods and Farmers Market Grant workshops, or the U of A Food Innovation Centers tours or workshops on the Fayetteville and Pine Bluff campuses. Backyard poultry workshops had the greatest participation by county agents at 54% with the remainder of participation being at 20% agent participation or less for the other programs, see Figure 3.

**County Agent Participation in Division Local Food Workshops**

- **Figure 3**

Other reported programs or workshops attended by agents:

- Food Labeling Laws
- County-wide Vegetable Forums
- Growing Healthy Communities
- High Tunnel Technology
- Farm to You
- Moms on the Farm
- The Learning Farm
COMMUNITY REQUESTS FOR SUPPORT

Across the country, farmers markets or food stands are the most common direct-to-consumer option for local food purchases. These markets feature farm vendors who sell fresh fruit and vegetables, meat products, dairy products or grains directly to customers at a common, recurrent location.37

On-farm markets are managed by a single farm operator that independently sells agricultural or horticultural products directly to consumers from a location on their farm property or on property adjacent to that farm.38 Farms may also host agritourism events for the public to participate in activities on the farm such as petting zoos, pumpkin patches, and more. Some communities have created farmers markets on wheels or “mobile markets” that take food to the people by offering multiple market locations.39

Community Supported Agriculture (CSA) and buying clubs are other options for direct-to-consumer food sources. CSAs consist of a farmer or a network of multiple farmers that offer consumers regular deliveries or pick up options for locally-grown food during one or more harvest seasons with a paid upfront subscription.40

In addition to delivering attending or delivering programs, county agents offer technical assistance at the request of clients in their communities. Most agents (63%) reported receiving requests for support to develop farmers markets, on-farm markets (24%), community supported agriculture programs (7%), and mobile markets (2%) as shown in Figure 4.

Figure 4: County Agents Providing Farmers Market Development Support
SUPPORTING NEW MARKET OPPORTUNITIES FOR FARMERS

Farm to institution is a form of local food procurement and another approach for local food system change that connects local producers to institutional settings such as schools, hospitals and universities within a region to locally grown foods, typically fruits and vegetables. In Figure 5, it is shown that county agents reported being involved at some level with connecting farmers to local restaurants or stores (25%) and to institutions (27%) such as schools, churches and hospitals. On the national level, farm to school is leading the farm to institution movement with more than 40,000 school districts nationwide now purchasing fresh foods from local producers.41

County Agents Connecting Farmers to New Markets

<table>
<thead>
<tr>
<th>25%</th>
<th>27%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connect farmers with local restaurants/stores</td>
<td>Connect farmers with institutions (schools, churches, hospitals)</td>
</tr>
</tbody>
</table>

SUPPORTING COMMUNITY AND HOME PRODUCTION

Gardening for food is a growing trend in backyards, on university campuses and at churches and schools across the country. Home and community-based food production encompasses a range of practices that include producing vegetable and herb gardens, fruit trees and berries, nut trees, small flocks and herds, bee keeping and aquaculture (fish production systems) with traditional and alternative methods. County agents report providing outreach, education and technical assistance on a range of topics shown in Figure 6.

County Agents Providing Education on Home Production

<table>
<thead>
<tr>
<th>70%</th>
<th>42%</th>
<th>16%</th>
<th>44%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home fruit and vegetable gardens</td>
<td>Backyard poultry/small animals</td>
<td>Aquaculture</td>
<td>Canning and food preservation</td>
</tr>
</tbody>
</table>

Figure 5

Figure 6
Community-based gardening is similar to home-based production, but production is conducted in a shared space such as on a school, university or church campus or in a neighborhood park. More than half of all county agents surveyed reported providing education, training or support for school and community gardens, as depicted in Figure 7.

**County Agents Providing Education on School and Community Gardening**

![Figure 7](image)

Food safety is an important issue facing the entire food chain from origin to plate. Producers, processors and distributors must be informed of food safety regulations, thus creating a demand for education. Division faculty has worked with county agents to offer food safety training for farmers on Good Agriculture Practices (GAP) Certification, Arkansas Voluntary Farm Self-Assessment, and USDA Meat Certification with almost two-thirds of county agents participating in the GAP certification workshop as shown in Figure 8.

**Division Faculty and County Agents Providing Food Safety Education to Arkansas Farmers**

![Figure 8](image)
County agents answered an open-ended question about the types of education, support or technical assistance they provide in their counties for local food programs that resulted in a long list of responses. Here is a graphic representation of those responses:

**COUNTY LOCAL FOOD INFRASTRUCTURE**

County agents are actively engaged in their communities and may be aware of infrastructure and other capacity to support local food efforts or may be able to inform the need for infrastructure to support local food system development. As shown in Figure 9, county agents reported the greatest infrastructure needs for supporting local food system development should include establishing or expanding capacity of local distributors, farmers markets, certified kitchens and farmer cooperatives.

**Figure 9**

County Infrastructure Needs to Support Local Foods

- Certified kitchen: 37%
- Processing facilities: 32%
- Refrigerated storage: 26%
- Local distributors: 40%
- Packing houses: 20%
- More farmers: 30%
- Farmers market/food: 37%
DIVISION’S ROLE IN SUPPORTING ARKANSAS LOCAL FOODS

County agents were asked what role the Division should play in supporting Arkansas farmers and local food. Table 1 includes a compendium of recommended future outreach or education efforts to support local food system development.

Table 1: County agent perspective on the Division’s role in supporting Arkansas farmers.

<table>
<thead>
<tr>
<th>Outreach or education should address:</th>
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<tbody>
<tr>
<td>Marketing and promotion</td>
</tr>
<tr>
<td>Best production practices for specialty crops</td>
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<tr>
<td>Making value chain and distribution connections</td>
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<tr>
<td>Farmers market development and management training</td>
</tr>
<tr>
<td>Development of cooperatives</td>
</tr>
<tr>
<td>Market policies and regulations</td>
</tr>
<tr>
<td>Food safety policies and regulations</td>
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<tr>
<td>Build the case for the value of growing for local markets</td>
</tr>
<tr>
<td>Sustainable agriculture</td>
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<tr>
<td>Provide market analytics</td>
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<tr>
<td>Production education with field days</td>
</tr>
<tr>
<td>Create collaborative projects with agriculture and family</td>
</tr>
<tr>
<td>and consumer science education objectives</td>
</tr>
<tr>
<td>Conduct education in winter</td>
</tr>
<tr>
<td>Provide Electronic Benefit Transfer or Supplemental</td>
</tr>
<tr>
<td>Nutrition Assistance Program (SNAP) training</td>
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<tr>
<td>Resource or grant availability</td>
</tr>
</tbody>
</table>

County agents were also asked what role the Division should play to support county local food efforts. Table 2 provides an ordered list of county agent responses.

Table 2: County agent perspective on the Division role in supporting counties.

<table>
<thead>
<tr>
<th>Future work should include:</th>
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<tbody>
<tr>
<td>Having Specialists specifically assigned to work with</td>
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<tr>
<td>counties on resource areas</td>
</tr>
<tr>
<td>Having Specialists attend county meetings</td>
</tr>
<tr>
<td>Provide more education to counties in resource areas,</td>
</tr>
<tr>
<td>workshops and programs, train the trainer</td>
</tr>
<tr>
<td>Provide more education on grants and sourcing resources</td>
</tr>
<tr>
<td>Help to promote the work in counties to administration</td>
</tr>
<tr>
<td>Establish better relationships with counties</td>
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</table>
CONCLUSIONS

This report provides insight into the current role that county agents are playing in local food system development and the potential to create programs and additional support for county agents to respond to this increasing demand. County agents provided a wealth of information to inform future planning efforts for the Division related to the emerging area of local foods. County agents reported the greatest support for home fruit and vegetable production, farmers’ market development and farmer GAP certification. They also provided a long list of additional areas of support that are needed from Division specialists. These findings align closely with national efforts and federal priorities for funding that aims to utilize local foods programming to improve the health and wealth of communities, particularly rural areas and small to medium sized farms. The U.S. Secretary of Agriculture, Tom Vilsack supports federal investments in local food saying they are “about opportunity” and that “many young and beginning farmers start out in local markets. Some stay there, and some scale up.” Land grant university systems have an increasing opportunity to be the recipient of federal resources targeted for local food programming because of the history of research-based education and for being a critical link to farmers, community leaders and residents of counties across the country. This report provides practical information to inform Division priorities for establishing programs to support this growing area of interest.

These findings will be shared with administration within the Division and with all county agents. This report will be referenced when looking for grants or other resources to support the burgeoning local foods development efforts in Arkansas. While informative, this report is limited in that the survey questions were designed based on familiarity with current programming and technical assistance areas. Although county agents provided a long list of open ended responses, agents may not have reported the breadth of technical assistance being provided or technical assistance training needed. This survey did not capture the specific audience or group of stakeholders requesting technical assistance and this could be helpful when determining programming priorities and emphasis.

This report is specific to Arkansas but may be useful in informing regional and national research and extension efforts. Arkansas may also look to other regional and national Extension programs to explore current efforts and look for opportunities to provide support to our counties. In summary, these findings offer important information to plan next steps for supporting the expansion of programming and infrastructure needed for local food systems development from production to consumption in Arkansas.
If you have questions or concerns regarding this report, please contact:

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