



United States Department of Agriculture
National Institute of Food and Agriculture

Agriculture and Food Research Initiative
Agricultural Economics and Rural Communities
Program

Small and Mid-Sized Farms, Rural Communities, and
Entrepreneurship

Project Directors Meeting

Agenda and Abstracts

February 21 and 22, 2013

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Welcome

Agriculture and Food Research Initiative
Agricultural Economics and Rural Communities
Project Directors meeting

January 22, 2013

Dear Project Directors and Other Colleagues,

Welcome and thank you for participating in the Agriculture and Food Research Initiative (AFRI) Agricultural Economics and Rural Communities (AERC) Project Directors meeting. The three program areas within the AERC program represented at this meeting are: (1) Small and Medium-Sized Farms, (2) Entrepreneurship and Small Business Development, and (3) Rural Development. The overarching goal of the AERC program is to advance our collective knowledge and ability to enhance economic welfare and economic opportunities in agricultural and rural communities through investments in research, extension and education activities.

This meeting presents an opportunity for you to share your research results, learn from others, and meet other researchers. Hopefully you will benefit from this experience and develop new relationships and researcher networks. The meetings are generally held during the researcher's period of investigation as an opportunity for project directors to share their challenges and strategies for addressing them, present research developments and findings, foster future collaboration and cooperation, and exchange scientific ideas among researchers and NIFA program managers.

We hope you enjoy the meeting, gain some valuable insights, and share with us your thoughts and ideas on how we can improve this experience.

Sincerely,

Robbin Shoemaker

National Program Leader for Economics

Agenda
Project Directors Meeting
Prosperity for Small and Medium-Sized Farms and Rural Communities Programs
February 21 – 22, 2013

Holiday Inn Capitol, 550 C. Street, Washington, DC 20024

February 21, 2013

- 7:30 AM **Registration**
- 8:30 AM **Welcome and Meeting Overview**
Drs. Robbin Shoemaker and Fen Hunt, National Program Leaders
USDA-National Institute of Food and Agriculture (NIFA)
- 8:45 AM **Agricultural Economics and Rural Communities: A USDA Perspective**
Meryl Broussard, Deputy Director for Agriculture and Natural Resources, NIFA
- 9:15 AM **Break**
- 9:30 AM **Session 1: Rural Development**
Moderator: **Robbin Shoemaker**, National Program Leader, NIFA
Panelists: **Alison Davis**, University of Kentucky – *“Promoting Entrepreneurship in Distressed Rural Communities: Integrating Psychological and Sociological Perspectives”*
 Corinne Valdivia, University of Missouri – *“Immigrant Integration and Sustainable Rural Development: Linking Receiving and Newcomer Communities”*
 Cassandra Moseley, University of Oregon – *“Community-Based Organizations, Social Networks, and Conservation: Strategies for Rural Economic Development in the West”*
 Donald M. McLeod, University of Wyoming – *“Determining the Relationships Between Pattern and the Costs of Public Services in the Mountain West”*
 Harrison Pittman, University of Arkansas – *“Enhancing Rural Communities and Entrepreneurship through Research and Outreach Addressing Legal and Regulatory Issues in Direct Marketing”*
- 11:30 noon LUNCH (on your own)
- 1:00 PM **Session 2: Local Food Systems**
Moderator: **Jill Auburn**, Acting Director, Office of the Chief Scientist, USDA
Panelists: **Mary Hendrickson**, University of Missouri – *“Explaining Linkages Among Farmers and Consumers in Local and Regional Food Systems to Enhance Rural Development”*
 Kenneth L. Robinson, Clemson University – *“Using Local Food Banks to Promote Sustainability of Small and Limited Resource Farms”*

Pamela J. Jackson, Fayetteville State University – *“Entrepreneurial Network Development Linked to a Southeastern North Carolina Regional Food System Initiative: Building Innovation Capacity”*

Colleen Matts, Michigan State University – *“Farm to Institution: Guiding Market and Pricing Decisions for Small and Medium Scale Farms”*

Chyi-Lyi Liang, University of Vermont and State College – *“Impacts of Multifunctional Operations on Long Term Sustainability and Prosperity of Small and Medium-Sized Farms and Rural Communities”*

Kathryn De Master, University of California, Berkley – *“Fostering Resilience: Integrating Territory and Heritage into Emerging Agricultural Clusters in the United States”*

3:00 PM **Break**

3:15 PM **Session 3: Urban Farming**

Moderator: **Fen Hunt**, National Program Leader, NIFA

Panelists: **Sally Lind Duncan**, Oregon State University – *“Utilities and Corporations as Ecosystem Services Buyers: Innovative Opportunities for Small and Medium-Sized Farms and Rural Communities”*

Brian Schilling, Rutgers, The State University of New Jersey – *“Enhancing Access to Preserved Farmland for Small and Medium Sized Farmers”*

Rhonda Skaggs, New Mexico State University, *Improving Economic Returns and Long-Run Sustainability in a Rapidly Growing, Peri-Urban, Multicultural, Traditional Farming Community*

5:00 PM **Break**

5:30 PM **Poster Session and Reception**

February 22, 2013

8:30 AM **Session 4: Animal Systems**

Moderator: **Robbin Shoemaker**, National Program Leader, NIFA

Panelists: **Francis Fluharty**, The Ohio State University – *“Assessing Production Systems, Economics, Marketing, Producer and Processor Perceptions and Characteristics of Meat from Forage-Based Systems*

Adrian Harri, Mississippi State University – *“Factors Influencing Marketing Margins in Cattle and Beef Markets”*

Darin Saul, University of Idaho – *“Developing Strategies to Increase Prosperity for Small Farms through Sustainable Livestock Production, Processing and Marketing”*

Guillermo Scaglia, Louisiana State University – *“Profitability for Small Beef Producers through Sustainable Forage Systems and Value Added Forage Fed Beef Production”*

David T. Galligan, University of Pennsylvania – *“Increasing Economic and Environmental Sustainability of Small and Medium Sized Dairy Farms”*

Nicolas DiLorenzo, University of Florida – *“Economic Viability and Agro-Ecology of Integrating Beef Cattle and Short Term Perennial Grasses into Peanut and Cotton Rotations”*

10:30 AM **Break**

11:00 AM **Lillian Salerno**, Acting Administrator, Rural Business-Cooperative Service
“Perspectives from Rural Development”

12:00 Noon **Lunch (on your own)**

1:30 PM **Session 5: Farm as a Business**
Moderator: **Scott Loveridge**, Michigan State University
Panelists: **Qingbin Wang**, University of Vermont – *“Enhancing the Profitability and Sustainability of Small and Medium Sized Dairy Farms through Artisan Cheese and Other Value-Added Products”*
Charles M. Tolbert, Baylor University – *“Rural Community Banks and Small Business Performance”*
Jason Scott Bergtold, Kansas state University – *“Small and Medium Size Farmers` Ability and Willingness to Supply Carbon Offsets through Carbon Markets and Conservation Crop Production”*
George W Stevenson, University of Wisconsin – *“Multi-Farm Business Strategies and Policy Considerations for the Middle of the U.S. Agri-Food System”*
Hannah S Gosnell, Oregon State University – *“Enhancing the Capacity of Small and Medium-Sized Ranch and Forestry Operations to Prosper From Payment for Ecosystem Services”*

3:15 PM **Final Remarks** **Robbin Shoemaker**, National Program Leader, NIFA

3:30 PM **Conference Ends**

Poster Presentations

Hosts: Camielle Compton and Alexandra Wilson, USDA - NIFA

Project Title	Affiliation	Project Director Name
The State of Urban Farming in the United States: Enhancing the Viability of Small and medium-Sized Commercial Urban Farms	New York University (NYU)	Carolyn Dimitri
Impacts of Evolving Food Safety Standards on the Sustainability of Small- and Medium-Size Produce Farms: Implications for Implementation of	Texas AgriLife Extension Service	Luis Ribera
Beef and Dairy Cattle Animal Welfare: Market Opportunities and Threats	Kansas State University	Glynn Tonsor
Profitable and sustainable poultry production on small- and medium-sized farms	University of Kentucky	Anthony J Pescatore
Enhancing Consumer Orientation of Farm to School Programs	The Pennsylvania State University	Amit Sharma
Silvopasture Systems for Increasing Productivity, Profitability, and Sustainability on Small and Medium-Sized Farms in the Southeast USA	Alabama A&M University	Ermson Z. Nyakatawa
Farm-Track: Financial And Risk Management (Farm) Tracking Study To Learn From The Planned And Actual Decisions Of Farmers And Ranchers	Texas A&M University	Dmitry Vedenov
Improving Profitability and Sustainability of Sheep Production Through Genetic Selection	University of Wyoming	Kristi Cammack
Enhanced Economic Sustainability of Small Farms Through the Production of Stone Fruits Using Mesoclimatic Modification Technologies	Cornell University	Terence L. Robinson
Enhancing Profitability Of Small And Medium Sized Farms Through Interactive Decision Making Tools And Modules	The Curators of the University of Missouri	Joseph L Parcell
Keeping the Value with the Farm: Expanding Market Opportunities Through Regional Branding	University of North Carolina Asheville	Leah Greden Mathews
Feasibility of a Local Wood Products Network for Rural Lands in Urbanizing Regions: a Pilot Study in Southern New England	University of Connecticut	Thomas Worthley
Enhancing The Sustainability Of Food Systems Through Service Learning-Based Entrepreneurship Education and Outreach	University of Vermont and State Agricultural College	David Scott Conner

Business Strategies for New and Existing Rural Grocery Stores: Roles of Local Foods, Institutional Sales, and Community Food Assessment	Kansas State University	David E Procter
Promoting entrepreneurship in distressed rural communities: Integrating psychological and sociological perspectives.	University of Kentucky	Alison Davis
Rural Entrepreneurship in the Wine Industry: Identifying Success Factors Among Small and Medium Sized Wineries in Emerging Cool Climate Regions	The Curators of the University of Missouri	Fabio Chaddad
Millions of Acres, Billions of Trees: Social and Economic Impacts of Timberland Sales by the Forest Products Industry in Alabama	Auburn University	Conner Bailey
Great Recession, Fiscal Stress And Demographic Transformation: Implications For Rural Service Delivery And Multi-Generational Planning	Cornell University	Mildred Warner
Making Markets for Ecosystem Services for Farms on the Rural Fringe: Vermont Grasslands for Hay and Nesting Songbirds	University of Connecticut	Stephen Swallow
Coaching for Entrepreneurship	Michigan State University	Scott Loveridge
New Bio-based Paths to Prosperity for Small and Medium Agricultural and Forest Landowners: A Pilot Study in Louisiana and Mississippi	Louisiana State University Agricultural Center	Richard Paul Vlosky
Beef Cattle Production on Grass-Legume Mixes: Economic Implications of Establishment Methods and Grazing Systems Performance	University of Arkansas	Dirk Phillip



**United States Department of Agriculture
National Institute of Food and Agriculture**

Agriculture and Food Research Initiative

Agricultural Economics and Rural Communities Program

Program Areas: Small and Mid-Sized Farms, Rural Communities, and Entrepreneurship

Session 1 Abstracts: Rural Development

February 21, 2013

9:30-11:30 am (EST)

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Moderator: **Robbin Shoemaker**, National Program Leader, NIFA

Panelists: **Alison Davis**, University of Kentucky – *“Promoting Entrepreneurship in Distressed Rural Communities: Integrating Psychological and Sociological Perspectives”*

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PROMOTING ENTREPRENEURSHIP IN DISTRESSED RURAL COMMUNITIES: INTEGRATING PSYCHOLOGICAL AND SOCIOLOGICAL PERSPECTIVES

Davis, A.; Davis, A. F.; Hustedde, R. J.; Usher, E. L.; Breazeale, N. D.
Agricultural Economics
UNIV OF KENTUCKY RES FOUNDATION
LEXINGTON, KENTUCKY 40506

ABSTRACT: Entrepreneurship is a widely promoted strategy of rural economic development. However, the need remains to systematically explore the determinants of entrepreneurship across diverse types of rural enterprises and communities. Furthermore, it is not clear whether today's educational and support programs and policies are matched to the needs of rural entrepreneurs. The rationale of the proposed project is to integrate approaches and tools from social psychology and rural sociology to carefully examine individual characteristics of rural entrepreneurs, the community context in which they operate, and interaction between the two. Secondly, based on this knowledge and a survey of current programs, the goal is to develop a series of recommendations for rural entrepreneurial educational and support programs.

IMMIGRANT INTEGRATION AND SUSTAINABLE RURAL DEVELOPMENT: LINKING RECEIVING AND NEWCOMER COMMUNITIES

Valdivia, C.
Social Sciences
UNIVERSITY OF MISSOURI
COLUMBIA, MISSOURI 65211

ABSTRACT: Among the transformational events currently shaping the future of U.S. agriculture is the process of demographic and cultural change, especially in communities of the Midwest and the South that until only two decades ago were settled almost exclusively by people of European descent. The prosperity of Midwestern rural communities depends in part on the successful and lasting integration of newcomers into society's fabric as workers, consumers and entrepreneurs. Rural communities face a number of struggles to integrate immigrants. They have limited access networks and information that impacts immigrant earnings and wellbeing, and affects the sustainability of rural communities when they are not fully engaged as consumers, producers, and entrepreneurs. Lack of integration between receiving and immigrant communities result in short-term (e.g., inefficient resource allocation and underutilization of the social networks of immigrants) and long-term social costs to the community (e.g., lack of sustainability and rural community viability). Using an interdisciplinary strengths-based model this 3-year project will examine the economic and social integration of three rural communities in Missouri from the perspectives of immigrant newcomers and long-term residents. This project focuses on promoting the sustainability of agriculture and rural communities, by using an interdisciplinary strengths-based model and developing tools and processes to facilitate the integration between long time members of rural communities and Latino newcomers. The project will be implemented in three distinct rural regions in the Midwest experiencing changes due to agriculture, agri-industry and services, and the hospitality industry driven by tourism. A mixed-methods research design will assess sustainable economic, social, and cultural integration and immigrant entrepreneurship. Empirical knowledge about the integration process is limited. Assessment tools will be used to develop acculturation profiles using surveys and focus groups in Phase 1. Phase 2 includes an appreciative inquiry process that engages long-

term residents and newcomers in action research to identify community actions that can move them toward integration. Quantitative and qualitative methods will be implemented to assess acculturation, integration, reception context, and information networks. Case studies in the three regions will evaluate the outcomes of the action research process across receiving and newcomer community members, stakeholders and their organizations. This project seeks to evaluate the institutional, social, cultural, economic and psychological factors that affect newcomers' consumer and producer behavior and in turn increase the efficiency and equity of private and public investment in agriculture and rural communities. It will enhance knowledge about entrepreneurship and small business development strategies, local and regional partnerships, and entrepreneurial networks, contribute to an understanding of integration by developing acculturation and integration profiles of the receiving communities and newcomers, and learn how to better facilitate integration in rural communities.

COMMUNITY-BASED ORGANIZATIONS, SOCIAL NETWORKS, AND CONSERVATION: STRATEGIES FOR RURAL ECONOMIC DEVELOPMENT IN THE WEST

Moseley, C.; Nielsen-Pincus, M. W.; Davis, E. J.; Nowell, B.

Institute for a Sustainable Environment
UNIVERSITY OF OREGON
EUGENE, OREGON 97403

ABSTRACT: Over the past two decades, rural forest-based communities in the American West have endured the decline of their natural resource economies as a result of increased international competition, consolidation, mechanization, and ecological degradation. Significant conflict over the management of public lands has reduced access to resources, which historically played a central role in the economic well being of many western communities. The rising national interest in green economic development offers promise for reviving rural America. But public lands communities face unique challenges and opportunities in capturing this economic development opportunity. They must rely on the private sector to generate wealth, but also require supportive public policies for federal land management. The most promising opportunities for public lands communities to benefit from a green forest economy lie in two areas: forest and watershed restoration, and integrated biomass utilization. Although rural development scholars have long recognized the importance of such capacity building within rural communities, there is limited understanding of the efficacy and strategies of the community-based intermediary organizations that are occupying this niche. The goal of this project is to strengthen abilities of community-based organizations (CBOs) to accelerate conservation-oriented economic development in rural public lands communities in the West. Entrepreneurship and small business growth in this context relies upon the integration of public policies, private capital, and social support for natural resource management; therefore, the networks and partnerships that CBOs are able to build are crucial to durable economic development and the sustainability of public lands communities. Our objectives are to: (1) develop a nuanced understanding of the strategies, activities, and networks that rural CBOs use to foster conservation-oriented economic development; (2) develop models of the relationship of CBO social networks, context, structure, to their economic development outcomes; (3) test the generalizability of our findings CBOs across the West; and (4) disseminate results practitioners, policymakers, and scholars. To carry out these objectives, we will use mixed methods. We will conduct four in-depth case study of rural, conservation-oriented CBOs located in four states. We will use those case studies to build models, which we will test using surveys of CBOs and forest businesses across 11 western states. Our deliverables include working and briefing papers, journal articles,

presentations, and policy briefings. This project will provide: (1) practitioners with lessons and techniques to strengthen CBOs and their networks to improve rural development outcomes; and (2) policy makers with lessons about policy strengths/barriers affecting conservation-oriented development in public lands communities.

DETERMINING THE RELATIONSHIP BETWEEN DEVELOPMENT PATTERN AND THE COSTS OF PUBLIC SERVICES IN THE MOUNTAIN WEST

McLeod, D. M.; Lieske, S. N.

Agricultural And Applied Economics
UNIVERSITY OF WYOMING
AGRICULTURE BUILDING, AG C 111
LARAMIE, WYOMING 82071

ABSTRACT: The ability of local governments to make fiscally sound decisions regarding growth, development, and agricultural land protection is critical for maintaining farming and ranching; protecting natural resources; providing economic opportunity; and improving the quality of life in rural areas. While the conversion of agricultural lands to rural residential development can strain county budgets, it is not known how specific development decisions impact county finances. Lacking information on how specific developments impact public finances, decision makers have no basis to alter current trends of agricultural land conversion. The overall aim of this application is to assess the availability of data, methodologies and expert collaboration in preparation for a standard AFRI grant application. A current pilot effort is being developed though limited in scope. The standard AFRI will expand the geographic scope and local government services modeled using spatially precise fiscal impacts modeling. With this seed grant application we will have the necessary data to model the spatial component of the costs of public services provision for counties in Colorado, Montana, and Wyoming. The proposed modeling will allow county level governments in these states to evaluate public expenditures associated with each parcel as influenced by size, location, and land-use classification. This research also enables the evaluation of the fiscal implications of changes to parcel sizes and land use. This seed grant application addresses AFRI priority area 6A, program area priority 5: Identify optimal regional land use decisions that protect the rural environment, promote economic development, and enhance rural quality of life.

ENHANCING RURAL COMMUNITIES AND ENTREPRENEURSHIP THROUGH RESEARCH AND OUTREACH ADDRESSING LEGAL AND REGULATORY ISSUES IN DIRECT MARKETING

Pittman, H.
Agricultural Economics & Agribusiness
UNIVERSITY OF ARKANSAS
FAYETTEVILLE, ARKANSAS 72703

ABSTRACT: Agriculture is arguably the most heavily regulated industry in the United States. As an industry, agriculture is impacted by a host of local, state, federal, and international laws, regulations, and policies that impact virtually aspect of production, processing, distributing, marketing, and disposal of agricultural goods and services. Because these laws and regulations impact the nation's agricultural

community, and, therefore, the nation in so many ways, it is imperative that there be access to timely and objective research and information on a range of agricultural and food law and policy issues.

Agriculture and Food Research Initiative
Agricultural Economics and Rural Communities Program
Program Areas: Small and Mid-Sized Farms, Rural Communities, and Entrepreneurship
Session 2 Abstracts: Local Food Systems

February 21, 2013

1:00-3:00 pm (EST)

Session 2: Local Food Systems

Moderator: **Jill Auburn**, Acting Director, Office of the Chief Scientist, USDA

Panelists: **Mary Hendrickson**, University of Missouri – *“Explaining Linkages Among Farmers and Consumers in Local and Regional Food Systems to Enhance Rural Development”*

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Kathryn De Master, University of California, Berkley – *“Fostering Resilience: Integrating Territory and Heritage into Emerging Agricultural Clusters in the United States”*

EXPLAINING LINKAGES AMONG FARMERS AND CONSUMERS IN LOCAL AND REGIONAL FOOD SYSTEMS TO ENHANCE RURAL DEVELOPMENT

Hendrickson, M.; Johnson, T.; Cantrell, R.
Social Sciences
UNIVERSITY OF MISSOURI
COLUMBIA, MISSOURI 65211

ABSTRACT: Local/regional food systems are a promising entrepreneurial solution for rural development, and may enhance the prosperity of at-risk small and medium sized farms and improve the health and well-being of consumers. Our bi-state research project examines these questions: What are the impacts of local/regional food systems on rural communities How do they impact the prosperity of small and medium-sized farms Are consumers in both rural and urban areas likely to participate.

USING LOCAL FOOD BANKS TO PROMOTE SUSTAINABILITY OF SMALL AND LIMITED RESOURCE FARMS

Robinson, K. L.; Henry, M. S.; Robinson, K. K.; Hughes, D. W.; Carpio, C.; Lamie, R. D.
Applied Economics & Statistics
CLEMSON UNIVERSITY COOPERATIVE EXTENSION
CLEMSON, SOUTH CAROLINA 29634

ABSTRACT: Traditionally food banks are seen as a major player in America's emergency food assistance system. They are not seen as a contributor to community economic development in an area, other than very indirectly. However, the link between sustainable agriculture and community development was made clear as the LCFB provided delivery, storage, inspection, and disposal services to farmers and affiliating nonprofits. It became a micro-lender to small scale farmers. It distributed produce for small scale farmers not only to agencies affiliated with the emergency food assistance system but also to retail markets. It inspected facilities to enhance food safety. It sought additional capital on behalf of agencies and farmers that lacked capacity to seek such capital. It engaged in value-added efforts by taking produce from farmers and combining that produce with additional items so the items received by affiliating agencies were now more nutritious. As a result, local farm incomes were enhanced. The increase in incomes ranged from \$5000 additional per year to \$25,000. All except one of the participating farmers started the project with between \$11,000-\$20,000 annual incomes. The proposed project will use the institutional intelligence gathered in the Lowcountry Food Bank in Charleston, SC, experience with how to be an effective local food system intermediary. The proposed project will engage other Food Banks and proximate small scale farmers to "scale up" the benefits of local food system participation by small farms across SC and contiguous states. Accordingly, the project will enhance the economic viability of small farms across SC and proximate rural communities.

ENTREPRENEURIAL NETWORK DEVELOPMENT LINKED TO A SOUTHEASTERN NORTH CAROLINA REGIONAL FOOD SYSTEM INITIATIVE: BUILDING INNOVATION CAPACITY IN LIMITED RESOURCE RURAL HOUSEHOLDS

Jackson, P. J.; Beratan, K. K.
Fayetteville State University
1200 Murchison Road Fayetteville

ABSTRACT: Sustainable agriculture tied to expanded and strengthened regional food systems shows great promise as a place-based economic development strategy that links to existing skills and resources within rural communities in southeastern North Carolina. An assumption underlying most regional food system efforts is that once markets are established, farmers will choose to take advantage of the new opportunities. However, evidence suggests that limited resource rural households (LRRHs) have been particularly hesitant to get involved in these new ventures; LRRHs in SE NC are generally unaware of the unfilled demand for high-quality locally grown food, and lack knowledge of how these new markets function. Therefore, they are missing out on economic opportunities that could significantly improve their quality of life. The limited available research suggests that they have very strong ties within their close-knit social networks, but tend to have very few ties outside of those networks. This lack of connection hinders their capacity to participate in expanding regional food networks since, as with other types of entrepreneurial networks, a primary contributor to network viability is social relations of cooperation and trust among suppliers, producers, workers, brokers, retailers, and consumers. Our project is based on the hypothesis that innovation capacity in LRRHs can be increased through establishment of ties to regional business networks in the course of trust-building interactions among a small group of households working together to achieve mutually beneficial objectives. We are testing theoretical concepts through a comparative case study of four groups of low-resource and/or minority households that have come together with the aim of increasing the profitability of their small-scale farms. We are providing resources and assistance to each group as they identify a priority need, and develop and implement a plan that addresses that need. In the process, we are helping each group to expand and diversify its business networks. This project will increase knowledge about factors hindering or enhancing the innovation capacity of low-resource and minority households, information that will be of value in design of more effective support and outreach programs. In addition, this project will provide direct benefits to participants in the form of improved farm operations and increased market access.

FARM TO INSTITUTION: GUIDING MARKET AND PRICING STRATEGIES FOR SMALL AND MEDIUM SCALE FARMS

Matts,C; Hamm, M. W.

Dept. of Community, Agriculture, Recreation & Resource Studies

MICHIGAN STATE UNIV EAST LANSING, MICHIGAN 48824

ABSTRACT: Institutional marketing can enhance the economic, social, and environmental sustainability of small- and medium-scale farms and regional food systems. However, more than a few gaps in research-based knowledge and resources to aid farmers still exist in regard to these markets. The long range goal of this project is to provide information which will foster marketing relationships between farmers and institutional buyers like schools, hospitals and colleges/universities. We will examine the basic features of these institutional markets, and also relationships among actors in these markets, including tools or systems for managing relationships, communications, and levels of commitment and

trust. We will use a series of individual interviews with farmers, distributors and buyers to determine their perceptions and readiness to supply institutional food service. These findings will be shared in a group learning lab setting, where participants help to design prototype distribution models which will then be tested and monitored in subsequent years. We will also interview farmers as to their current practices around cost measurement and price discovery, to help understand and guide farmers in determining fair prices which cover costs. Results will be shared via scholarly articles, extension/outreach bulletins and also developed into teaching modules and tested in classroom settings. Expected benefits are the development of improved market outlets for farmers based on equitable sharing of risk and reward.

IMPACTS OF MULTIFUNCTIONAL OPERATIONS ON LONG TERM SUSTAINABILITY AND PROSPERITY OF SMALL AND MEDIUM-SIZED FARMS AND RURAL COMMUNITIES

Liang, C.; Goetz, S.; Ahearn, M.; Brown, J.
Community Development and Applied Economics
UNIVERSITY OF VERMONT
BURLINGTON, VERMONT 05405

ABSTRACT: The number of U.S. farms remained remarkably stable at around 2 million between 1978, when the current farm definition was adopted, and 2002. However, this relative stability in farm numbers masks a great deal of structural change. Remarkably, the 2007 Agricultural Census showed an increase in the number of farms in the U.S., albeit only at the very lowest and highest ends of the size distribution. The last Census also showed the continuing concentration of farm production on the largest farms. However, there is a stunning lack of systematic research on the linkages and interactions in the "new global economic order" between People (farmers, local residents in farming communities, and consumers), Place (farming communities, other communities directly or indirectly connect with farming communities), and Prosperity (farm income and profits, health of local farming communities, quality of life for farmers/farm families and consumers or local residents). The purpose of this project is to study small and medium-sized farms involved in multifunctional operations in the U.S., with an emphasis on the New England region. Multifunctional farm operations in this project are defined primarily to include agritourism and other activities such as specialty foods production, direct sales to local markets, and off-farm employment. These activities are hypothesized to enhance the long term sustainability and prosperity both of farmers and the rural communities in which they are located.

FOSTERING RESILIENCE: INTEGRATING TERRITORY AND HERITAGE INTO EMERGING AGRICULTURAL CLUSTERS IN THE UNITED STATES

BOWEN, S. K.; DE MASTER, K. T.
Sociology, Anthropol & Soc Work
NORTH CAROLINA STATE UNIV
RALEIGH, NORTH CAROLINA 27695

ABSTRACT: In this project, we will explore the applicability of territory and heritage-based agricultural initiatives for producers in the U.S. In particular, we examine the potential for these initiatives to foster agricultural "cluster economies," which are situated in specific spaces and places and emphasize the synergies associated with the social and economic networks embedded in these places. Porter (2000: 15) defines clusters as "geographic concentrations of interconnected companies, specialized suppliers, service providers, firms in related industries, and associated institutions that compete but also cooperate." While much previous scholarly attention has been given to industrial clusters, relatively few studies have been conducted on agricultural clusters, in spite of the fact that they show considerable potential to contribute to long-term resilience of small to medium-sized farms and rural communities. The strong links between agricultural products and the spaces, places, and environments where these goods are produced make agricultural clusters unique, meriting more rigorous practical and theoretical research. In this project, we use a comparative case study method to explore how territory and heritage-based models might foster agricultural clusters in the U.S. More specifically, we examine how these models might be adapted to the specific resources, needs, and challenges faced by U.S. small and medium-sized farms. We identify 8 cases of agricultural clusters in 3 regions (New England, North Carolina, and Wisconsin) with potential for cultivating or revitalizing strong territorial linkages and cultural heritage. We compare 3 cases in more detail in this preliminary study, investigating social, market, and environmental barriers and opportunities for these territorially-based initiatives. Previous research (conducted in other contexts) has shown how territorial initiatives have the potential to foster multifunctional benefits (social, environmental, economic) in rural regions; this study will show specific opportunities and barriers to these initiatives in the U.S. context, with the aim of strengthening existing territorial schemes and providing a model for the creation of new initiatives. Furthermore, agricultural clusters represent a multidisciplinary model that integrates economic, social, and environmental relationships within and between specific territories. Moreover, as a tool that has not been extensively employed in the U.S., agricultural clusters provide new ways of linking small and medium-sized farmers and rural communities and facilitate new relationships characterized by cooperative exchanges and entrepreneurial innovation. By fostering collaboration and novel formal and informal relationships between farmers and firms, this research will help rural communities adapt with resilience, flexibility, and innovation to changing environmental and market conditions.

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Session 3 Abstracts: Urban Farming

February 21, 2013

3:15-5:00 pm (EST)

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Brian Schilling, Rutgers, The State University of New Jersey –
“Enhancing Access to Preserved Farmland for Small and Medium Sized Farmers”

Rhonda Skaggs, New Mexico State University, *Improving Economic Returns and Long-Run Sustainability in a Rapidly Growing, Peri-Urban, Multicultural, Traditional Farming Community*

UTILITIES AND CORPORATIONS AS ECOSYSTEM SERVICES BUYERS: INNOVATIVE OPPORTUNITIES FOR SMALL AND MEDIUM-SIZED FARMS AND RURAL COMMUNITIES

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ABSTRACT: "Payment for ecosystem services" (PES), a market-based approach to protecting and restoring the environment, is gaining growing attention from scholars, practitioners, and the conservation community. The interest is not just for its potential to enhance the services nature provides for society, but also for its potential to enhance the economic prosperity of the suppliers of those services, including agricultural landowners. There are a number of challenges associated with institutionalizing PES schemes, however, many of which have to do with the demand side of the equation. In particular, who will pay landowners for their stewardship To date, most PES schemes have relied on government funding, with a small amount developed through market-like trading schemes. However, the questionable results of ad hoc mitigation and in-lieu-fee mitigation programs to date, plus lack of analysis of ecological outcomes associated with such efforts, all leave strategic and tactical openings for both corporations and public utilities (Davis 2005). The proposed project will thus explore two innovative approaches to funding PES schemes involving corporations and public utilities. We suggest that each of these approaches holds real potential for leveraging current incentive programs and generating hybrid models for further motivating land stewardship; neither has received significant attention in the scholarly literature to date. More specifically, the two approaches are: (1) the involvement of public utilities in providing incentive programs targeting small and medium-sized farms through various PES opportunities, and (2) the attraction of corporate funding to drive a certification system based on the ecosystem services provided by small and medium-sized farms pursuing restoration activities as a revenue source. Both offer potential economic benefits for landowners, public utilities, and corporations, and ecological benefits for watersheds. We anticipate that the integration of the two approaches could open up additional emerging/hybrid revenue opportunities for small and medium-sized landowners.

ENHANCING ACCESS TO PRESERVED FARMLAND FOR SMALL & MEDIUM SIZED FARMS

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ABSTRACT: This project is submitted as an integrated Standard Grant under Priority Area 3 of the AFRI - Agricultural Prosperity for Small and Medium-Sized Farms program area. The long-term prosperity of America's small and medium-sized farms and associated issues of farmland retention remain forefront issues in national farm policy discourse. Substantial public investment has been made to permanently preserve more than 2.2 million acres of farmland in the U.S. Anecdotally and empirically, however, it is evident that the market values of development-restricted farms are appreciating in many areas to levels beyond the financial accessibility of small and medium-sized farms seeking to expand, and industry entrants. This project addresses a knowledge gap in the area of farmland affordability in the academic and practitioner literature. Limited existing research has observed little price divergence between

preserved and unrestricted farmland; however the causes and implications of this paradox have not been established. Through implementation of an integrated research and outreach plan, our goals are to create better understanding of the factors affecting preserved farmland values and document the extent and impact of farmland appreciation on the prosperity of small and medium-sized farms. With this knowledge, innovative strategies, including new policy recommendations, will be developed and vetted with farmers and farmland preservation practitioners to promote the affordability and accessibility of preserved farmland to current and future small and mid-sized farmers. The impact of farm transition and land access within this cohort of farms is of vital importance to the long-term vitality of the domestic farming industry.

IMPROVING ECONOMIC RETURNS AND LONG-RUN SUSTAINABILITY IN A RAPIDLY GROWING, PERI-URBAN, MULTICULTURAL, TRADITIONAL FARMING COMMUNITY

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ABSTRACT: Small-scale, peri-urban agriculture throughout the United States is multifunctional, and highly valued by local populations, contributes to nutrition, cultural preservation, lifestyle opportunities, economic returns, environmental quality, and social stability. One multicultural (e.g., Native American, Hispanic, and Anglo) community in New Mexico which is at the forefront of attempting to preserve its local, traditional agricultural system is the South Valley located in the Middle Rio Grande Basin, south of the Albuquerque metropolitan area. In the past few years the citizens of the South Valley community area have organized to address the threats they believe confront them as an agriculturally based community in the peri-urban shadow of the city of Albuquerque. This project will evaluate the hydrologic, socio-economic, and policy components of agricultural production in the study area, and the related hydrological balance of the system. This project is unique in that it combines both technical, engineering-based research with participatory action research which actively involves study area residents in the research and technical recommendation development processes. Adoption of best management practices and other changes in the agricultural system likely to increase economic and environmental sustainability are enhanced as a result of the participatory process.

Agriculture and Food Research Initiative
Agricultural Economics and Rural Communities Program
Program Areas: Small and Mid-Sized Farms, Rural Communities, and Entrepreneurship

Session 4 Abstracts: Animal Systems

February 22, 2013

8:30-10:30 am (EST)

Session 4: Animal Systems

Moderator: **Robbin Shoemaker**, National Program Leader, NIFA

Panelists: **Francis Fluharty**, The Ohio State University – *“Assessing Production Systems, Economics, Marketing, Producer and Processor Perceptions and Characteristics of Meat from Forage-Based Systems*

Adrian Harri, Mississippi State University – *“Factors Influencing Marketing Margins in Cattle and Beef Markets”*

Darin Saul, University of Idaho – *“Developing Strategies to Increase Prosperity for Small Farms through Sustainable Livestock Production, Processing and Marketing”*

Guillermo Scaglia, Louisiana State University – *“Profitability for Small Beef Producers through Sustainable Forage Systems and Value Added Forage Fed Beef Production”*

David T. Galligan, University of Pennsylvania – *“Increasing Economic and Environmental Sustainability of Small and Medium Sized Dairy Farms”*

Nicolas DiLorenzo, University of Florida – *“Economic Viability and Agro-Ecology of Integrating Beef Cattle and Short Term Perennial Grasses into Peanut and Cotton Rotations”*

ASSESSING PRODUCTION SYSTEMS, ECONOMICS, MARKETING, PRODUCER AND PROCESSOR PERCEPTIONS AND CHARACTERISTICS OF MEAT FROM FORAGE-BASED SYSTEMS

Fluharty, F. L.; Loerch, S. C.; Zerby, H. N.; Kuber, P.; McCutcheon, J.
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ABSTRACT: Small to medium sized family farms are at a disadvantage compared with large commercial farming entities if production efficiency is the measurement criterion. Yet, economic prosperity of these small farms is important, as they are critical to rural economies and total food production in the United States. Grass-based finishing systems are uniquely well suited to small and medium sized beef and sheep producers. While few data are available quantifying input costs, an opportunity may exist to reduce production costs for smaller producers by utilizing grass-based production systems. Due to an increasing consumer demand, the value of differentiated grass finished products is greater than that of commodity products. As a result, sustainability of farm profitability is not solely dependent on volume of sales and economies of scale, but is increasingly dependent on producing a high-demand product. Direct marketing options are excellent and smaller producers tend to be situated closer to more densely populated regions of the United States. Research discoveries and producer education developed from this project will increase small to medium sized livestock farm economic prosperity, through the improved production of forage-fed beef and lamb, and by identifying processing and marketing opportunities for locally raised differentiated meat products. Gaps exist in our knowledge of how forage-based livestock production systems affect the palatability factors for meat products including flavor, color, chemical composition and texture. If these are impacted negatively, the perception and expectation of consumers relative to their eating experience will be hindered. A thorough economic assessment of diverse grass-based meat production systems has not been conducted. Profitability will rely on the creation of high-value, consumer products versus the mere economic efficiency of production and returns for commodity products. The research focus of this proposal is to evaluate novel forage-based finishing systems for beef cattle and lambs and to compare these to a standard feedlot grain-based production system. The increasing popularity of the locally-grown foods movement necessitates gathering information related to the production efficiency and meat products that can be produced using a variety of forage-based programs. Additionally, understanding how food animal producers (primarily beef, sheep, and dairy grazers producing grass-based beef) use information to make decisions to transition their operations to a primarily forage-based finishing system is a prerequisite to developing effective Extension and outreach programs. These programs can then be aimed at aligning producers with smaller scale meat processors who are transitioning their operations toward meeting the high-value demand for locally-grown, and often novel meat products. The end result could be the building of a holistic system (one that encompasses the producers, processors, and marketers) which would allow for more interaction among creative, progressive, and engaged partners.

FACTORS INFLUENCING MARKETING MARGINS IN CATTLE AND BEEF MARKETS

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ABSTRACT: The proposed research aims to provide a more complete understanding of the current dynamics of and the factors that impact marketing margins in the backgrounding and feeding phases of cattle production. The importance of the proposed research is highlighted by recent market developments, especially higher price volatility and the increased linkage between agricultural and energy markets. It is also important to note that these marketing margins have not been studied before. Cattle production is dominated by small and medium-sized farmers. Operations with less than 50 head accounted for 79.4% of the total number of operations in 2009. Even so, the U.S. represents the largest beef producing country in the world and the value of cattle in the U.S. for 2009 was \$31.8 billion. Furthermore, the U.S. is also the largest producer of corn - a major input costs to the cattle industry - accounting for 41% of global production in 2009. Two specific objectives will be pursued: 1) the development of conceptual and empirical models that explicitly incorporate realistic cattle production circumstances and the effects of the input price level and volatility changes into the dynamics of marketing margins; and 2) the development of tools for small and medium-sized cattle producers allowing them to utilize findings from specific objective one.

DEVELOPING STRATEGIES TO INCREASE PROSPERITY FOR SMALL FARMS THROUGH SUSTAINABLE LIVESTOCK PRODUCTION, PROCESSING AND MARKETING

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ABSTRACT: This project integrates economic and environmental research on local and regional livestock production, processing and consumer markets to determine optimal system configurations for increasing the economic and environmental sustainability of small farms. Growing interest in local and regional foods represents an opportunity for small producers to enter higher profit market niches, thereby increasing farm revenues. Marketing to local markets also provides economic support for rural areas. The benefits of producing and processing cattle in smaller volumes also can have environmental and social benefits, including avoidance of air and water pollution and increased quality of life for farmers, their employees, livestock, and communities. To take advantage of this opportunity much work needs to be done to identify the optimal strategies and configurations of the livestock production, processing and marketing system to maximize benefit for small producers while minimizing environmental impacts. While growing interest in local and regional livestock production, processing and marketing exists, the feasibility of establishing USDA-certified local processing in every local area is doubtful. For this reason, the feasibility of livestock food systems in a variety of configurations, including both local and regional options for finishing, processing and marketing, will be researched. The result of this research will determine which circumstances and conditions will most benefit small producers and rural communities economically, while offering the most significant environmental benefits.

PROFITABILITY FOR SMALL BEEF PRODUCERS THROUGH SUSTAINABLE FORAGE SYSTEMS AND VALUE ADDED FORAGE FED BEEF PRODUCTION

Scaglia, G.; Gillespie, J.; Harrison, R.; Janes, M.; Malekian, F.; McMillin, K.; Prinyawiwatkul, W.; Westra, J.

Iberia Research Station
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ABSTRACT: Research conducted over 20 years ago showed that forage-finished beef could be produced using forage resources available in the Southeastern U.S. In general, producers in this region have small numbers of cows (less than 100) and 90% of the calves weigh less than 600 lb at weaning, leaving them with few marketing opportunities for calves. Few producers have enough calves to market in a truck load (48,000 lb). Marketing alliances among small and medium-sized producers have had limited success. Trucking costs (increased due to the rise in fuel costs), sharp declines in export markets, and increased cow numbers are all factors that are affecting beef producer capacity to compete in the calf market. Environmental concerns, food safety recalls, health concerns, and a changing domestic demographic have encouraged beef producers to look for alternative production methods to keep the industry viable. Consumer interest in the benefits of forage-finished beef has led to increased demand for this product. The successful niche marketer will target poorly served consumers, identify their needs, and produce a consistent, high-quality product to meet the demand. Throughout the U.S., with the Southeast no exception, consumer demand for "organic" and "natural" foods is increasing. In 2006, there was annual growth in sales of 20 and 42% for natural and organic meats, respectively. Adding to this trend, consumers are more inclined to support locally produced products. This is a particularly attractive means for Southeastern small- and medium-sized beef cattle producers to add value to their land and capital resources in a growing market sector. According to SARE (Sustainable Agriculture Research and Education) the three pillars of sustainability are: PROFIT over the long term, STEWARDSHIP of our nation's land, air and water, and QUALITY OF LIFE for farmers, ranchers and their communities. Through better grazing management (stocking rate, rotational stocking, water distribution), fertilization practices (if needed), and use of the appropriate biological type of animal for the region, a cow-calf operation can be transformed to incorporate stocker/finishing. Today, improved infrastructure and different animal and plant genetics are available to integrate environmental and economic viability into agricultural production systems. Productivity and profitability of three-year long forage systems for forage-fed finishing steers will be evaluated. Meat characteristics and its nutritional value, as well as consumer preference will be studied. Surveys will add information on what consumers prefer and their willingness to pay for this product. This project will determine the most profitable strategies for producing and distributing forage-fed beef, and will address e-commerce entrepreneurial network development by inclusion of Louisiana Market Maker in the program. It will also evaluate producer and consumer perceptions that affect current production strategies and consumer preferences for forage-fed beef.

INCREASING ECONOMIC AND ENVIRONMENTAL SUSTAINABILITY OF SMALL AND MEDIUM SIZED DAIRY FARMS

Galligan, D. T.; Wu, Z.; Dou, Z.; Ramberg, C. F.; Munson, R.; Baker, L.; Remsberg, D. W.; Beck, T. J.
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ABSTRACT: Small dairies are limited in herd size and must use a portfolio of competitive strategies for increasing production efficiency to be economically and environmentally sustainable. However, small farms have limited capacity to explore new management opportunities. This project will bring technological advances in nutrition, health, and financial management to small dairy farms and improve their economic return. This project will bring technological advances in nutrition, health, and financial management to small dairy farms and improve their economic return. Its goals will be reached by developing farm management decision making tools, training managers and veterinarians to use decision making tools by developing a Small Dairy Sustainability course for veterinary curricula, and evaluating the practical use of decision making tools in a cohort of small to medium size herds having varying management practices. To ensure accomplishment of these objectives, interactive visual analytics will be utilized as a delivery platform for complex animal management principles. Practicing veterinarians will be trained to deliver these educational materials to managers of small farms. Outcomes of the research will add case study materials to the educational program, while the educational activities will help disseminate the research information to a broader pool of producers and other stakeholders. This integrated project is expected to result in \$150/cow/yr more net income from milk sales alone and a 15% reduction in nutrient excretion per unit of milk produced. The project is expected to benefit at least 500 small and medium dairy farms in Pennsylvania and impact many more in the nation, thus directly addressing the USDA agricultural prosperity mission for small and medium-sized farms.

ECONOMIC VIABILITY AND AGRO-ECOLOGY OF INTEGRATING BEEF CATTLE AND SHORT TERM PERENNIAL GRASSES INTO PEANUT AND COTTON ROTATIONS

Wright, D. L.; Myer, R. O.; Marois, J.; Mackowiak, C.; Lamb, G. L.; Blount, A. R.; Howe, J.; Nowak, J.; Prevatt, W.; Wood, C.; Worosz, M.
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ABSTRACT: Use of perennial grasses in row crop rotations can reduce economic risk, enhance crop yields and protect the environment. Cotton and peanut grown after perennial grasses results in more vigorous plants that can better withstand biotic and abiotic stresses. A long-term multistate research project demonstrating sod-based rotations (SBR) has been established since 2000. Results to date indicate bahiagrass (*Paspalum notatum*) in rotations with peanut and cotton significantly increases crop yields and improves soil quality. However, in our previous studies, the bahiagrass was harvested as hay. Including beef cattle into the SBR system can make for more efficient use of farm resources, improve economic returns, and reduce risk by diversification. The objectives are 1) to demonstrate that the integration of beef cattle grazing can improve the economical viability of a SBR system, 2) to research

the impacts of grazing on various soil physical and chemical characteristics, including nutrient cycling and greenhouse gas emissions, and on subsequent crop yields in the rotation, and 3) identify producers' concerns, constraints and obstacles to adopting a SBR system. Farm size fields in NW Florida and SE Alabama will be used. The cattle (cow/calf system) will graze the bahiagrass and the winter cover crops. The fields will have non-grazed (exclusion) areas to evaluate the impact of grazing. Cattle productivity will be measured as weight of calves produced. In all, we want to show that SBR with cattle is an economically viable and environmentally friendly farming system for small- to medium-sized farms in the southeastern USA.

Agriculture and Food Research Initiative
Agricultural Economics and Rural Communities Program
Program Areas: Small and Mid-Sized Farms, Rural Communities, and Entrepreneurship

Session 5 Abstracts: The Farm as a Business

February 22, 2013

8:30-10:30 am (EST)

Session 5: The Farm as a Business

Moderator: **Scott Loveridge**, Michigan State University

Panelists: **Qingbin Wang**, University of Vermont – *“Enhancing the Profitability and Sustainability of Small and Medium Sized Dairy Farms through Artisan Cheese and Other Value-Added Products”*

Charles M. Tolbert, Baylor University – *“Rural Community Banks and Small Business Performance”*

Jason Scott Bergtold, Kansas state University – *“Small and Medium Size Farmers` Ability and Willingness to Supply Carbon Offsets through Carbon Markets and Conservation Crop Production”*

George W Stevenson, University of Wisconsin – *“Multi-Farm Business Strategies and Policy Considerations for the Middle of the U.S. Agri-Food System”*

Hannah S Gosnell, Oregon State University – *“Enhancing the Capacity of Small and Medium-Sized Ranch and Forestry Operations to Prosper From Payment for Ecosystem Services”*

ENHANCING THE PROFITABILITY AND SUSTAINABILITY OF SMALL AND MEDIUM SIZED DAIRY FARMS THROUGH ARTISAN CHEESE AND OTHER VALUE-ADDED PRODUCTS

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Community Development and Applied Economics
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ABSTRACT: The project goal is to provide technical and business management information and training for assisting small and medium dairy farms to produce and market farmstead and artisan cheese and other value-added dairy products through integrated research, extension, and education activities. Most previous programs for dairy farmers have focused on milk productivity, but increased milk production has failed to increase farm income. This project focuses on the potentials of farmstead and artisan cheese and other dairy products that have shown significant increase in consumer demand. We capitalize on the success of the Vermont Institute for Artisan Cheese (VIAC), which has trained more than 900 farmers and other individuals since 2004, to develop extension and education programs for helping farmers produce and market value-added products. This project was developed by an interdisciplinary team comprising an extension specialist, an agricultural economist, and two food scientists, with input from many stakeholders. Our complementary expertise, strong commitment to help dairy farmers through value-added products, and close collaboration with farm groups and organizations will contribute to the success of this project.

RURAL COMMUNITY BANKS AND SMALL BUSINESS PERFORMANCE

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ABSTRACT: How does the presence or absence of different types of locally-oriented financial institutions affect the emergence and development of small rural businesses In our ongoing work, we have established that locally-oriented businesses such as small manufacturing establishments and retail outlets are associated with a number of beneficial local outcomes and promote rural community resilience. But, the local financial sector--presumably the source for much of the venture capital in a community--has received less attention. Do entrepreneurs and small businesses do better in a climate where banks and other financial entities tend to be locally oriented In view of the consolidation of the U.S. banking system in the 1980s and 1990s, are there fewer locally oriented banks to fund community enterprises Have financial institutions other than banks filled the gap left by bank consolidation In the extreme case of a local financial "desert," how do small rural businesses fare where there are very few or no traditional financial institutions In these credit-constrained areas, have higher-cost lenders filled the gap In the era of cheap credit, were there rural areas that did not enjoy the savings and instead paid substantially more for access to credit How did differential cost for credit affect long-term growth of small businesses in those markets We seek AFRI funding to use confidential Census data to address questions like these that bear directly on Program Priority Area 3.

SMALL AND MEDIUM SIZE FARMERS ABILITY AND WILLINGNESS TO SUPPLY CARBON OFFSETS THROUGH CARBON MARKETS AND CONSERVATION CROP PRODUCTION SYSTEMS

Bergtold, J.; Williams, J.; Peterson, J.; Staggenborg, S.; Langemeier, M.
Agri Economics
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ABSTRACT: Human activities related to agriculture over the past century have resulted in climate change with detrimental effects across the agricultural landscape, including decreased water availability, soil degradation, changes in cropping patterns, reduced crop productivity, increased pest pressures and food insecurity. The sequestration of carbon through the use of conservation systems may help to mitigate these effects. With the ability of farmers to supply carbon offsets through conservation systems, carbon markets can provide incentives that promote conservation on-farm, sequester carbon, and mitigate climate change impacts. Small and medium size farms in the Midwest operate about half of the agricultural land and this presents an opportunity to increase environmental stewardship and provide economic stimulus for this at-risk group. The purpose of this project is to examine small and medium agricultural crop producers' ability and willingness to intensify on-farm conservation efforts to provide carbon offsets in an established carbon market in the Midwestern United States. The project will (i) design a decision tool to help small and medium farms assess their carbon sequestration potential and conservation farm economics; and (ii) examine small and medium farmers' willingness to intensify conservation cropping systems management on-farm using carbon markets. The project will help to increase carbon sequestration, promote carbon market participation, and improve environmental stewardship on small and medium size farms in the Midwestern U.S. The intensification of conservation on-farm in the presence of carbon markets in the future may provide another valuable revenue stream and promote further conservation, helping to meet national and international GHG emission reduction goals and improve rural economic sustainability.

MULTI-FARM BUSINESS STRATEGIES AND POLICY CONSIDERATIONS FOR THE MIDDLE OF THE U.S. AGRI-FOOD SYSTEM

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ABSTRACT: In their individual forms, many small and medium-sized farms and ranches are increasingly challenged as they are often too small to compete successfully in globalized agricultural commodity markets, yet too large or otherwise not positioned to directly market food products to local consumers. These farms (and ranches) are a vital sector of U.S. agriculture and are disappearing. Employing comparative case study methodologies, this project will conduct research on two kinds of alternative food supply chain business strategies that show promise for redirecting and revitalizing these "farms of the middle." Known as mid-scale food value chains, these business strategies feature multi-farm organizational structures to scale up 1) direct-to-consumer food marketing and 2) direct-to-wholesale food marketing. The project will also conduct research on public policies that present barriers or provide support for these mid-scale food supply chains. Research findings will form the foundation for regional outreach activities to agricultural producers, Extension educators, and other service providers to help them assess new market opportunities and business strategies. Finally, the project will engage

agricultural students by developing and testing instructional modules for three university level curricula and for incorporation in high school curricula.

ENHANCING THE CAPACITY OF SMALL- AND MEDIUM-SIZED RANCH AND FORESTRY OPERATIONS TO PROSPER FROM PAYMENT FOR ECOSYSTEM SERVICES (PES)

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ABSTRACT: The goal of this project is to enhance the capacity of ranchers and family forest owners to capitalize on the growing demand for provision of ecosystem services associated with extensive agroecosystems. We suggest that "payment for ecosystem services" (PES) opportunities offer promise to landowners looking to diversify but could be improved with better information about landowners' experiences and needs; and that intermediaries with the potential to address the various constraints affecting landowner participation in PES programs are in need of better tools and strategies for facilitating the diffusion of PES information and ideas. We aim to identify and analyze factors affecting family forest and ranch owners' participation in PES schemes, and use that knowledge to assist intermediaries with landowner education and outreach, and policymakers with the development of landowner-friendly policies. Research objectives will be achieved through a mixed methods approach including a survey, case studies, interviews, and focus groups. Extension objectives will be achieved through development of a PES Decision Support Tool and dissemination of findings to intermediaries and policymakers in Washington D.C. The rationale for our project is twofold. First, we believe that there is a pressing need to help family forest and ranch owners discover ways to stay on the land, since they play a critical role in maintaining many of the things people value most about the American West. Second, we believe that the best way to offer assistance is to enhance rural landowners' capacity to access the resources they need to improve their situation through stakeholder-driven participatory research and extension. We expect that our project will result in increased knowledge among landowners, intermediaries, and other interested parties about the opportunities and challenges related to existing and emerging PES programs and policies. Our project will also result in new behaviors. Landowners will enroll in various PES programs and receive payments, and they will share their experiences with other landowners through the interactive PES catalog we create. Networking between and among landowners and intermediaries will increase, building capacity to adapt to changing economic realities. Intermediaries will engage more landowners in PES opportunities, and they will work together in a more functional, coordinated way to support landowners. Policymakers will develop new policies that better address landowner needs and streamline and improve existing ones. In the long-term, we expect that economic, environmental and social conditions for ranchers and family forest owners in rural, resource-dependent communities will improve. Landowners will be more prosperous and their operations will be more diversified and therefore resilient. Agroecosystems will be healthier and have more capacity to provide important ecosystem services. And due to improved networking, information sharing, and diffusion of innovative ideas, landowners and intermediaries will work together more effectively. In sum, rural landowners and communities will have improved capacity to plan for sustainable futures.



**United States Department of Agriculture
National Institute of Food and Agriculture**

Agriculture and Food Research Initiative - Agricultural Economics and Rural Communities Program
Program Areas: Small and Mid-Sized Farms, Rural Communities, and Entrepreneurship

Poster Session Abstracts

February 21, 2013

5:00 pm (EST)

THE STATE OF URBAN FARMING IN THE UNITED STATES: ENHANCING THE VIABILITY OF SMALL AND MEDIUM-SIZED COMMERCIAL URBAN FARMS

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ABSTRACT: Urban farming has gained increased visibility as access to food and food security issues have grown in importance. Numerous cities and regional areas are making urban farming part of their platform for sustainability and food systems and interest from policymakers is increasing. Profitability is crucial to urban agriculture's viability, yet urban farmers face abundant challenges in this regard. Many of these challenges are different than those faced by non-urban farmers. The project addresses long-range improvement in and sustainability of U.S. agriculture and food systems in a number of ways. First, it seeks to ameliorate the risks for urban farmers who often do not have access to traditional technical assistance available to their rural counterparts. Through our outreach component, the research findings regarding farm viability and risk management will be transmitted to urban farmers. Second, the expansion of farming in urban areas can increase the environmental quality by expanding the amount of green space inside the borders of cities. By expanding the production of food in cities, low-income households may have greater access to fresh food, and thus enhanced food security. In addition, by identifying significant obstacles to the viability of small and medium-sized urban farms, the research will inform local, state, and federal policymakers, who may adopt policies that facilitate the expansion of urban farming. Finally, greater knowledge about how to farm in an urban setting may be useful to the growing number of young people, particularly those who are not from traditional farm communities, who are interested in becoming farmers.

IMPACTS OF EVOLVING FOOD SAFETY STANDARDS ON THE SUSTAINABILITY OF SMALL- AND MEDIUM-SIZE PRODUCE FARMS: IMPLICATIONS FOR IMPLEMENTATION OF

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Texas AgriLife Extension Service
TEXAS COOPERATIVE EXTENSION
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ABSTRACT: The food safety standards for production, harvesting, handling, transportation, and processing are changing rapidly. Complying with the evolving standards presents major challenges that directly impact the economic viability and sustainability of small- and medium-size farms. The nature and magnitude of the impacts of the evolving sets of mandated standards (FSMA, LGMA, and GLOBALGAP) on the economic sustainability and survival of small- and medium-size farms has not been systematically researched. Determining these impacts and their relative magnitudes must begin with quantitative analyses of the differential costs imposed on small-, medium-, and large-size farms and on the differential in revenues received by these farms. Revenue differentials are influenced by the impacts on produce markets, by the market channels available to these farms, and ultimately by consumer preferences as expressed in their purchasing decisions. These impacts are influenced by the places where consumers buy their products, their perceptions of product quality, and by contemporary lifestyle/cultural considerations. The essential first step in this research involves determining impacts

and implications of the evolving standards for viability and sustainability of small- and medium-size farms and the rural communities in which the farms and markets operate. This first step determines the farm, market, consumer, and societal consequences of the policies that have been enacted and of the rules being developed for their implementation. The equally important second step involves determining public and private sector actions that can retain and improve the economic viability, competitiveness, and sustainability of small- and medium-size farms.

BEEF AND DAIRY CATTLE ANIMAL WELFARE: MARKET OPPORTUNITIES AND THREATS

Tonsor, G.
Agri Economics
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ABSTRACT: Producers face significant knowledge gaps and a lack of outreach resources necessary to respond appropriately to increasing public concern regarding livestock production practices. Investigators will synergistically begin filling knowledge gaps with targeted applied research and initiate routine, novel, and effective outreach engagement with cattle producers. Specific objectives include to engage producers to benchmark knowledge and awareness, to identify and document perceptions of animal welfare issues from both consumer and producer perspectives, and to disseminate generated knowledge widely and effectively through novel and practical outreach efforts.

PROFITABLE AND SUSTAINABLE POULTRY PRODUCTION ON SMALL- AND MEDIUM-SIZED FARMS

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ABSTRACT: The overall objective of the project is to use animal husbandry and marketing research components to develop a model that can be used to make economic and agribusiness management projections regarding alternative poultry production on small- and medium-sized farms. The model can be used to evaluate the economic viability of poultry production as a new or expanded activity on the farm. It can also be used to complete a cost-benefit analysis of changes in the cost of production or the price that can be received for the chicken meat or eggs produced.

ENHANCING CONSUMER ORIENTATION OF FARM TO SCHOOL PROGRAMS

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ABSTRACT: Enhancing Consumer Orientation Of Farm To School Program Despite significant supply-side efforts, the number of schools participating in Farm to School (F2S) programs is disproportionately low.

F2S programs have become one of the pillars of promoting healthy eating in schools. We argue that low participation rates nationally in USDA and state sponsored F2S programs are due, in part, to an under-emphasis on the needs of the core stakeholders, students and parents. We therefore propose to develop validated consumer orientation model and research based extension materials that will result in a sustainable higher demand for local foods in schools by focusing on consumer needs. The primary stakeholders benefitting from increased sales of fruits and vegetables in schools are students who gain access to healthier foods from known sources, and local farmers who will be able to tap into stable local markets. Enhancing the consumer orientation of Farm to School programs with our model used by school districts nationwide will increase the amount of locally grown foods purchased for students. Once our model has been implemented, a level of sustainability will emerge. We will interview farmers, school officials, parents and students to obtain in-depth field observations. We will assess costs-benefits of the consumer orientation model and develop decision-making metrics for farms and schools. We will observe student responses to specific consumer oriented product characteristics at the time of food purchase. Parents preferences will be investigated using scenario-based surveys. Research findings will lead to farm and school extension and outreach, as well as equivalent 4-H information materials for farms.

SILVOPASTURE SYSTEMS FOR INCREASING PRODUCTIVITY, PROFITABILITY, AND SUSTAINABILITY ON SMALL AND MEDIUM-SIZED FARMS IN THE SOUTHEAST USA

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ABSTRACT: Rural communities play a significant role in supplying safe food and raw materials which provide fiber, shelter, and energy to the nation. These communities, predominantly characterized by limited resource farmers and forest landowners on small and medium sized farms, face many challenges including competition from overseas markets and the need to achieve environmentally sustainable production practices while remaining profitable. In addition, urbanization continues to threaten the existence and sustainability of forestry and agricultural enterprises in rural communities. This sector continues to struggle to make a profit from conventional agriculture and traditional forestry practices, which now threatens their viability. There is a potential for properly designed, well managed, economically viable, and sustainable agroforestry systems to provide economically attractive timber/livestock/forage production packages for the struggling landowners which provide annual income from animals sales and sustainable browse systems, while they raise trees for timber. This project is an integrated research, extension, and outreach effort to develop and promote sustainable loblolly-pine meat goat silvopasture systems to benefit the above mentioned landowners. The project will bridge onto an existing research template on the property of the Federation of Southern Cooperatives Rural Training and Research Center at Epes, Alabama by incorporating the acquired knowledge on forage establishment, forage enhancement, and animal management to spearhead the establishment of silvopasture enterprises for increasing productivity, profitability, and sustainability on landowners properties in the Black Belt soil region of Alabama. We will carry out research, extension, and outreach activities designed to equip these rural communities with science based knowledge and skills to enable them to establish and manage sustainable silvopasture enterprises on their properties. This project will be conducted within the Black Belt region of Alabama, on property of the Federation of

Southern Cooperatives Rural Research and Training Center in Epes, Alabama, using an existing 6 ha, 12-year-old loblolly pine plantation which has been mapped, thinned, pruned, and fenced to enable long-term replicated studies on silvopasture. The project will provide awareness of agroforestry's economic, social, and environmental benefits to farmers and forest landowners on small and medium-sized farms in the southeast U.S. Results from the proposed project will be used to develop scientific publications, extension bulletins, and presentations at national and international scientific conferences. These will be valuable contributions from the project. The close working relationship between Alabama A&M University, The Federation of Southern Cooperatives, USDA National Agroforestry Center, and the Alabama Cooperative Extension System will facilitate the transfer, sharing, and utilization of information and data generated from this project among farmers, and interested parties including government and private organizations working in rural development.

FARM-TRACK: FINANCIAL AND RISK MANAGEMENT (FARM) TRACKING STUDY TO LEARN FROM THE PLANNED AND ACTUAL DECISIONS OF FARMERS AND RANCHERS

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ABSTRACT: This project partners with the existing FARM-Assistance program funded by the Texas Legislature to collect and analyze information on planned and actual management decisions by farmers to evaluate the interaction of behavioral decision-making and the impacts of changes in input, output, credit, and insurance markets, and their subsequent impact on farm performance and viability. This project therefore promotes the sustainability, stability, and development of small and medium-sized farms by enhancing knowledge of firm decision-making and business strategies and moreover providing a mechanism to communicate findings to producers. However, at present time no information is collected by FARM-Assistance on actual decisions made by the farmers in the program. The primary activity of the proposed project is thus to follow-up with FARM-Assist participants to evaluate their actual decisions, compare these with their planned decisions, and empirically analyze the measured differences using demographic controls and changes in the available information between the planning and decision stage. Of particular interest would be evidence supporting the existence of decision-making "biases" acting independently of changes in the producer's available information. Special attention will be paid on the impact on farm performance, risk management and long-term planning. The program participants will receive both their own tailored report as well as a report on aggregate findings with implications for their farm or ranch operation. Objectives include identifying and promoting strategies to overcome potential biases, therefore encouraging the sustainability of small and medium-sized farms through enhanced knowledge of decision-making pitfalls and how they affect business development and viability.

IMPROVING PROFITABILITY AND SUSTAINABILITY OF SHEEP PRODUCTION THROUGH GENETIC SELECTION

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ABSTRACT: Small family farms comprise 90% of today's sheep operations, accounting for 73% of inventory and 67% of total sales. Additionally, >90% of sheep producers report that income from their operations accounts for <25% of their total income. Research and extension programming to support family farms is essential to ensure the sustainability of the sheep industry. Feed efficiency is a trait of economic importance to sheep producers; however, it is difficult and expensive to measure. Beef cattle research has demonstrated that certain rumen microbial profiles are associated with favorable feed efficiency. Efficient animals also produce less methane, a significant source of greenhouse gas emissions. Rumen fluid samples for evaluations of microbial profiles are relatively easy to obtain, and may provide sheep producers with a means of selecting more efficient breeding stock while minimizing methane production. As a result of this project, we anticipate improving the visibility of the sheep industry. We will also enhance knowledge and awareness of producers, consumers, and other targeted audiences about issues important to the sheep industry. By working closely with producers, we will ensure that materials and methods developed throughout this project are applicable and useable by producers and other targeted audiences. We anticipate that many Ram Test producers will become valuable advocates for this program, as they will directly benefit from the proposed research regarding improvements in feed efficiency. They will be involved in extension and outreach efforts, through testimonials and presentations at producer meetings. The extension team will facilitate dialogue among stakeholders, and the diverse backgrounds of our extension team (e.g. livestock production, agricultural economics) will help to advance understanding and implementation of sustainable agricultural practices through engagement with producers. Outcomes expected include: development and launch of a Sheep Production CoP; producer and consumer awareness of issues important to the sheep industry and its members; producer awareness of the importance and economic benefit of improving feed efficiency; development of tools to enable genetic selection for improved feed efficiency; and advancements towards understanding the link between feed efficiency and methane production in ruminant livestock. We expect to impact producers, consumers, extension/outreach personnel, and industry and research partners through this joint research and extension project. Additionally, students (graduate and undergraduate) will be involved with this project, ensuring interest and involvement of the next generation in the sheep industry.

ENHANCED ECONOMIC SUSTAINABILITY OF SMALL FARMS THROUGH THE PRODUCTION OF STONE FRUITS USING MESOCLIMATIC MODIFICATION TECHNOLOGIES

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ABSTRACT: High-value fruit crops such as cherries, apricots and plums are in demand and offer a significant economic opportunity to small and medium-sized farmers in the Northeast and Great Lakes regions. However, these crops have high risk of crop loss due to rain-induced fruit cracking, spring frost damage to flowers and susceptibility to debilitating diseases that are disseminated by rain. We propose to study, develop and extend to small and medium-sized fruit growers, a suite of production technologies that will mitigate the climatic risks of growing these fruit crops. We have studied various component technologies over the last 10 years for modifying climatic risks, and we propose to integrate these components into an economically and environmentally sustainable production system for growers. The risk-reduction system would include new high-quality varieties, high density planting strategies, dwarfing rootstocks, intensive canopy management, quality-promoting growth regulators, novel irrigation and nutrient management, soil management including cover crops and drainage and new technologies for mitigating climate risks including plastic-covered tunnels and/or rain diversion nets. We will determine both the horticultural and economic feasibility of this improved risk management system. We believe this integrated package will be critical for consistent commercial production of high-value cherries, apricots and plums for direct farmer retail sales to meet growing consumer demand for locally grown high-quality stone fruits. The high value of these fruit crops will significantly improve small farmer income and strengthen rural economies. This is an integrated, trans-disciplinary project which addresses priorities in the AFRI program 1601 Agricultural Economics and Rural Communities - Small and Medium-sized Farms.

ENHANCING PROFITABILITY OF SMALL AND MEDIUM SIZED FARMS THROUGH INTERACTIVE DECISION MAKING TOOLS AND MODULES

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ABSTRACT: Demand for bioenergy crops and for locally produced fruits and vegetables is experiencing significant growth and creating renewed interest in diversified crop production, including the use of cover crops for conservation and sustainability. Although row crop farm profitability has recently been positive, macro trends highlight the importance of increased diversification in the future. In March, 2011 the number of outstanding contracts for call options at \$200/barrel for crude oil was at the highest level since the options started trading in 2009. This highlights the upward trend of energy prices. Rising energy costs are among the primary reasons for volatile fertilizer prices. Seven of the eight major fertilizers have had double-digit percentage increases in price compared to one year ago. This highlights the need to search for lower input crops. Nationally, policies such as the Renewable Fuel Standard (RFS2) highlight the importance of increased production of bioenergy crops. Locally, one firm in Missouri has just within the last month announced their interest in contracting for up to 25,000 acres of

Miscanthus. This highlights the need by small and medium-sized farmers to know how incorporating a perennial into their operations will impact long-term profitability compared to other crop options. USDA has introduced the "Know Your Farmer Know Your Food" initiative to create opportunities for producers by better connecting the value chain indicating more opportunity for high-valued and high input food crops. This represents a production paradigm shift for most small and medium-sized farmers. Land values have increased dramatically over the past five years, with highly productive land now selling for the equivalent of a 3.2% rent/value ratio. This implies land costs may prohibit many small and medium size producers from expanding the operation. This emphasizes the need for small and medium size farmers to maximize revenue per acre in their existing operation.

KEEPING THE VALUE WITH THE FARM: EXPANDING MARKET OPPORTUNITIES THROUGH REGIONAL BRANDING

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ABSTRACT: The burgeoning interest in locally grown foods creates significant challenges. Without effective messaging and without consistent and accurate labeling of local food, producers will not receive any increased value. While not as important in direct markets where consumers directly interact with farmers, labeling local farm products is critical in larger-scale markets to both enable consumers to readily find locally-grown products and to ensure that producers receive the full value of any premium associated with locally-grown food. To address this issue, this project will integrate research, extension, and education based activities. Research and extension activities will identify messages and strategies that impact consumer purchasing decisions and assess the best ways to engage buyers and store personnel in the branding program. The knowledge from the research will be applied to the branding program to increase the visibility and appeal of the brand, provide farmers with marketing assistance, and provide retail buyers, managers, and other personnel with the tools and materials they need to effectively use the program at the store level. Education elements will complement research and extension activities, enhance the undergraduate educational experiences of students, deliver science-based knowledge to students, and foster interest in food and agricultural research.

FEASIBILITY OF A LOCAL WOOD PRODUCTS NETWORK FOR RURAL LANDS IN URBANIZING REGIONS: A PILOT STUDY IN SOUTHERN NEW ENGLAND

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ABSTRACT: This seed proposal addresses Program Area Priority A1621, Entrepreneurship and Small Business Development, examining the question: "Is it feasible to create an economically viable network of secondary wood processors and local forest landowners who supply raw material" With the goal of developing a full integrated project proposal fostering rural entrepreneurship, contributing to rural

economies and protecting rural landscapes, we will gather data, information and skills and explore opportunities, motivations, logistics and potential barriers associated with establishing a network linking small-scale local producers with small-volume local secondary product processors. Under this project, research and extension activities will address three objectives: 1. Assess opinions, attitudes and understandings of local wood-product customers about the source or origin of the materials in products they purchase; 2. Quantify and characterize derived demand of wood-based raw materials by secondary producers (those who manufacture a product from wood) and project what portion of that demand local production can satisfy; 3. Assess secondary product producer perceptions and opinions about locally grown and processed wood and the potential consumer value of "Connecticut Grown" wood products. Information developed using survey methods, choice experiments, field trials and participant evaluations will inform the development of a local wood products network proposal. These activities will stimulate local rural economic activity, embrace sustainable forest stewardship principles, promote intensive forest management for high quality timber on smaller acreages, encourage energy use and transportation efficiencies, and foster locally-grown forest products appreciation and forest conservation, establishing a material link between community members and their local forest resource.

ENHANCING THE SUSTAINABILITY OF FOOD SYSTEMS THROUGH SERVICE LEARNING-BASED ENTREPRENEURSHIP EDUCATION AND OUTREACH

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ABSTRACT: The long term goal is to enhance the sustainability of the US food system and rural communities by fostering sustainable agri-food enterprises. The short term goal is develop, implement, evaluate and disseminate educational and extension programs which will prepare the entrepreneurs and employees of sustainable agri-food businesses for enduring economic prosperity. The programs, delivered within an experiential, service-learning based pedagogy, will provide training in the critical skills, knowledge and networks needed to form, manage, govern and operate agri-food based businesses. The businesses will create strategic partnerships which create value for all partners and share risk and reward equitable. The businesses will enhance the social, economic and environmental sustainability of their communities and advance public health goals by producing, processing, distributing, serving and selling healthful, sustainably and regionally produced foods and increasing their availability to community members. We begin by conduct multi-methods research to understand the critical skills, knowledge and networks needed to both start and work in sustainable agri-food firms, then incorporate these findings into a set of service-learning classes within the University of Vermont's (UVM) curriculum, as well as UVM Extension programs. Impact on students and community partners will be assessed; results will guide the formation of curriculum guides to be shared with other higher education institutions. Our efforts build on many efforts in Vermont to place the agri-food system at the forefront of state economic development and sustainable job creation, as well as utilizing and strengthening UVM's core competencies in food systems research, Service-Learning and community entrepreneurship.

BUSINESS STRATEGIES FOR NEW AND EXISTING RURAL GROCERY STORES: ROLES OF LOCAL FOODS, INSTITUTIONAL SALES, AND COMMUNITY FOOD ASSESSMENT

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ABSTRACT: Local grocery stores are a critical piece of the infrastructure sustaining America's rural communities providing healthful food, creating and supporting local jobs, and generating taxes. Yet, these independently-owned businesses are struggling to survive. This applied research and extension project addresses basic business strategy questions facing new and existing rural grocery stores in Kansas and Nebraska and as related to use of local foods, institutional sales, and value-added enterprises. Data will be gathered through a detailed survey of rural grocery store owners, case studies of selected rural grocery stores, and a consumer survey of Kansas and Nebraska rural residents. Results will be used to develop science-based business strategies for rural grocery stores. Extension activities will communicate these science-based business strategies to store owners and facilitate networking between these rural grocery stores, local producers, institutional buyers, and their local communities regarding food access, the role of rural groceries, and local foods. Project outputs include reports, business strategy tool kits for starting up and operating rural grocery stores, sample business plans, and new business networks.

PROMOTING ENTREPRENEURSHIP IN DISTRESSED RURAL COMMUNITIES: INTEGRATING PSYCHOLOGICAL AND SOCIOLOGICAL PERSPECTIVES.

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ABSTRACT: Entrepreneurship is a widely promoted strategy of rural economic development. However, the need remains to systematically explore the determinants of entrepreneurship across diverse types of rural enterprises and communities. Furthermore, it is not clear whether today's educational and support programs and policies are matched to the needs of rural entrepreneurs. The rationale of the proposed project is to integrate approaches and tools from social psychology and rural sociology to carefully examine individual characteristics of rural entrepreneurs, the community context in which they operate, and interaction between the two. Secondly, based on this knowledge and a survey of current programs, the goal is to develop a series of recommendations for rural entrepreneurial educational and support programs.

RURAL ENTREPRENEURSHIP IN THE WINE INDUSTRY: IDENTIFYING SUCCESS FACTORS AMONG SMALL AND MEDIUM SIZED WINERIES IN EMERGING COOL CLIMATE REGI

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ABSTRACT: In the last decade we have observed the establishment of a growing number of small- and medium-sized wineries in cool climate wine regions. As a result of this entrepreneurial activity, wine clusters are emerging in non-traditional regions. These emerging wine clusters have the potential to become vectors of rural development as they foster the growth of related industries. Most cool climate wineries are new, small, geographically dispersed, and inexperienced in wine production and marketing. In an ongoing research project and with input from industry participants, we have identified a set of challenges faced by start-up wineries that we seek to address in this proposal. Our long-term goal is to increase the success rate (i.e. survival and growth) of start-up wineries and thereby foster the development of wine-based clusters in emerging cool climate regions. Our integrated project has the following supporting objectives: (1) Examine contractual mechanisms between wineries and grape growers and help the industry develop procurement strategies to reduce transaction costs, increase quality and winery performance; (2) Identify strategies to overcome distribution challenges of start-up wineries and increase access to non-local markets; (3) Examine the extent of inter-firm collaboration and develop collective action strategies to foster regional cluster development; (4) Establish an eXtension Community of Practice on Cool Climate Wine Regions; (5) Organize annual workshops allowing team members to present findings and ongoing research activities to industry stakeholders and jointly develop a strategic outreach plan for wine cluster development; and (6) Produce educational materials in various formats accessible to both professional and community audiences. This proposed integrated research-extension project supports the AFRI goals of enhancing the growth of rural entrepreneurship and the development of regional clusters.

MILLIONS OF ACRES, BILLIONS OF TREES: SOCIAL AND ECONOMIC IMPACTS OF TIMBERLAND SALES BY THE FOREST PRODUCTS INDUSTRY IN ALABAMA

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ABSTRACT: Since 1990, corporations in the forest product industry have divested themselves of as much as 26 million acres of commercial timberland in United States, with most of this divestiture occurring in the past decade. Virtually every major corporation in this industry has participated in such sales, resulting in dramatic changes in ownership of land. Literature on the forest products industry sale of commercial timberland has focused on economic motivations for widespread divestiture. These boil down to corporate shareholder value and tax advantages. Timber investment management organizations, or TIMOs, and real estate investment trusts, or REITs, have become major players through ownership and control of most of the land sold by industry. These new owners and managers will shape the future of the forest products industry and the larger rural economy because they will determine

management objectives of this land. In some cases, the new owners may continue to manage for commercial timber production, but in other cases different management objectives may affect land use patterns. In some cases, new owners will identify "highest and best uses" (suburban, exurban, recreational, conservation, or industrial development) resulting in land being removed from timber production. To the extent that these new land uses reduce the volume of timber harvested, the price of timber may increase. Non-industrial private forestland owners would benefit from higher prices, but only if mills are able to remain competitive in an increasingly global market. Changes in timber harvests and prices could result in mill closures and the loss of employment in timber management and harvesting and in value added processing of wood products. Our project is designed to document and analyze the social and economic impacts of ownership and land use change affecting the single most important manufacturing sector in Alabama. We will conduct semi-structure interviews with a variety of stakeholders and knowledgeable individuals and conduct a survey of new owners to learn what impact change of ownership had on forestland management objectives. We will develop Extension programming to assist communities and counties affected by changes in forestland ownership to identify appropriate policies at the local and state levels to reduce negative externalities and maximize benefits associated with industrial divestiture of commercial timberland.

GREAT RECESSION, FISCAL STRESS AND DEMOGRAPHIC TRANSFORMATION: IMPLICATIONS FOR RURAL SERVICE DELIVERY AND MULTI-GENERATIONAL PLANNING

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ABSTRACT: The Great Recession of 2008-2009 hit financial markets around the world and prompted massive governmental intervention. Now in 2011 we are witnessing the Great Recession 2.0 - a recession hitting state and local governments. As the economy begins to rebound, state and local governments find themselves in a deepening fiscal crisis as tax receipts to local governments continue to fall. The fiscal crisis is not the only challenge facing local governments - they also face demographic transformation. The US population is aging and although many rural governments have pursued retirement in-migration as an economic development strategy, they are discovering that the "grey gold" of the recently retired (65-75 year olds) loses some of its economic luster as older citizens need more supportive services (para-transit, home health care, meals on wheels, etc). Seniors make up only half the story. The future of any community lies in its youth. Rural areas have long suffered from out-migration and struggle to hang on to young people as they become economically active adults. This project addresses these concerns. First we will chronicle the demographic transformation in rural communities. Next we will explore how new service delivery models at the local government level address the joint challenges of fiscal stress and demographic restructuring. Third we will assess how rural communities address the need for multi-generational planning challenges in land use and service design. Finally, we will support a program of extension and outreach to rural community leaders to enhance their understanding of these issues and support their efforts to promote multi-generational planning and service delivery. This project addresses three of NIFA's rural development goals: (1) promoting sustainable agriculture and rural development to enhance environmental quality, (2) sustaining the economic viability of agriculture and rural communities; and (3) enhancing the quality of life of farmers, farm workers, and rural communities. PIs Dr. Mildred Warner and Dr. David Brown, leading researchers in demographic change and rural community service delivery, will partner with the International

City/County Management Association (ICMA), a leader in local government survey research, to conduct two national surveys - one on service delivery and one on multi-generational planning and the challenges of meeting the needs of elderly and children. We will supplement the surveys with case studies on rural community multi-generational planning efforts. Extension services will be in collaboration with ICMA and the Rural & Small Town Planning Division and the Women & Planning Division of the American Planning Association to ensure we reach rural local government officials and planners across the country.

MAKING MARKETS FOR ECOSYSTEM SERVICES OF FARMS ON THE RURAL FRINGE: VERMONT GRASSLANDS FOR HAY AND NESTING SONGBIRDS

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ABSTRACT: This project will augment an on-going research-extension program to develop innovative approaches to marketing ecosystem services. The project contributes to priorities of the AFRI-Small and Medium-Sized Farms program by: generating and disseminating new knowledge that advances economic and environmental integration by establishing ecosystem services as profitable, on-farm activities; providing information and evaluating impacts of innovative marketing approaches; and using research-based extension to enhance understanding of farmers, communities, NGOs, and decision-makers, on the potential to embed ecosystem services in rural prosperity. The research strives to enable ecosystem-service markets analogous to those of familiar food products, involving impersonal, cost-minimizing transactions among a broad community of consumers buying, anonymously, from a community of farmers. Successful development of such markets could establish a new approach that complements existing government or philanthropic approaches to environmental conservation. The project strives to develop marketing approaches that communities can use without federal or state-level action, although a university extension staff might initially serve as a broker in early stages of potential markets. In addition, the research offers an opportunity to evaluate the potential role of leadership-funds or matching-grants to stimulate financial support from the broad community of residents. This opportunity bears implications for the integration of government-supported incentive programs with demand-side revenues from local residents who express their preferences through markets. Accordingly, the project could stimulate opportunities to better direct both public policy and private action to improve the general welfare and to sustain the rural quality of life through small and medium-sized farms, particularly in suburbanizing regions. The project addresses NIFA challenges of sustainable growth in a changing environment; and sustaining ecosystem function and biodiversity of the rural landscape. Moreover, developing ecosystem service markets will help American agriculture to compete, while creating new tools for society to mitigate or adapt to climate changes affecting ecosystems. The project can diversify the farm portfolio, enhancing sources of farm income, by integrating economics with ecosystem management, to support increased economic opportunities and improved quality of life in rural America. While the project centers on hayfields, grassland birds, and undeveloped open spaces sustaining cultural services associated with agrarian heritage, the methods for integrating ecosystem services into the farm economy and urban-fringe communities may be applied more broadly. Success of this project will also move economists and policy analysts closer to having real economic markets by which to value ecosystem services.

NEW BIO-BASED PATHS TO PROSPERITY FOR SMALL AND MEDIUM AGRICULTURAL AND FOREST LANDOWNERS: A PILOT STUDY IN LOUISIANA AND MISSISSIPPI

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ABSTRACT: The purpose of this integrated research and extension project is to identify wood bio-based business opportunities for small and medium agricultural producers and forest landowners in the U.S. Gulf South using Louisiana and Mississippi as pilot states. Specifically, we will provide an array of scenarios for different wood bio-based products and business strategies. Financial risk will be evaluated and estimates of regional and state economic impacts will be made. The project encompasses three diverse regions in Louisiana and Mississippi with each having unique characteristics and opportunities for wood bio-based business development. However, the study regions combined represent characteristics of much of the land base in the Gulf South which can lead to operationalizing our methodology and results to other states. The overarching goal is to provide unbiased information to help small and medium agricultural and forest landowners to make informed decisions regarding participation in wood biomass-based business endeavors.

BEEF CATTLE PRODUCTION ON GRASS-LEGUME MIXES: ECONOMIC IMPLICATIONS OF ESTABLISHMENT METHODS AND GRAZING SYSTEMS PERFORMANCE

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High fertilizer and feed costs are the main reasons for reduced profits and decreased economic sustainability of beef farms in the US. Additionally, concerns over environmental quality in many areas of the country warrant a shift to more resource-efficient farming practices. Forage legumes have the potential to improve on-farm nutrient cycling, nutrient management, soil health, and enhance pasture nutritive value. Moreover, introducing legumes may result in decreased soil erosion due to utilization of improved grazing methods required to enhance the persistence of legumes. Rotational grazing, for example, reduces soil-erosive potential and provides more uniform distribution of nutrients through animal excretion. Despite obvious advantages of systems containing forage-legume components, research questions for introducing legumes are as follows: (1) What are cost-effective establishment methods for selected annual and perennial legume species (2) What is the long-term persistence of perennial and annual legume species (3) Is the inclusion of annual and perennial legumes into grazing systems cost-effective and environmentally sustainable in the light of current synthetic N fertilizer prices and other external farm inputs We seek to answer these questions simultaneously by initiating three separate studies on these subjects and will also incorporate an outreach component. While these projects will be conducted independently from each other, they complement each other by providing key information to stakeholders.

