

2012 University of Missouri Extension Plan of Work

Status: Accepted

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I. Plan Overview

1. Brief Summary about Plan Of Work

University of Missouri Extension is committed to delivering reliable, relevant and responsive educational programs to address the current and future issues critical to Missourians. The issues facing individuals Missourians, families, young people, farms, businesses and communities are complex and require multifaceted solutions that draw from the resources and expertise across MU Extension.

The overarching trends that are shaping Missouri's future and the direction of University of Missouri's Extension programs include:

Human Health and Chronic Disease

Missouri children and adults have higher rates of obesity and overweight, are less physically active, have higher incidences of chronic diseases, and eat fewer fruits and vegetables when compared to national data. Type II diabetes costs Missouri an estimated \$3 billion per year in medical costs and productivity losses.

Missourians have a growing interest in organic, natural and locally grown foods; sales of which are growing at an annual compound rate of more than 20 percent. Consumer demand increases the financial incentive for farmers to diversify or develop value-added local products, which also support their local economy.

Energy, Environment and Natural Resources

Consumers, farmers and businesses are seeking low- and no-cost energy saving options to reduce energy expenditures. Alternative energy sources, such as wind, solar, methane, biomass and plant-base energy, can increase energy independence, decrease energy consumption and costs, while conserving water and other natural resources, and creating new opportunities for economic growth. Food, fiber and energy production requires efficient and sustainable use of soil, water, energy and air. Dwindling groundwater supplies—the main source for drinking water, irrigation and industry use, will require new conservation and management strategies. Reducing pollution and better management can preserve Missouri's natural resources for future generations. Continuing concerns include reducing pollution, promoting conservation and improving management. The therapeutic value of nature holds potential for rural economic development through tourism. Young people have become distant from the natural world and need to be reconnected and understand its value.

Changing Demographics of Missouri Communities

Missouri's population is becoming older, affecting both families and communities. Missourians will be faced with decisions on care-giving, specialized services, health care and housing. Communities must ensure that those voices are heard during the public decision-making processes. The need for specialized services creates entrepreneurship potential for young people who leave the community, as well as jobs for residents and sales-tax revenue for local governments. Aging farm owners are selling their operations to people with non-farm backgrounds. Not only will this create the need for education and training, but communities will need support in balancing the traditional values of the community with those of the

newcomers.

Children, Families and Special Populations

Nurturing and developing human potential, and enhancing the quality of life are ongoing needs. Family dynamics continue to evolve, creating distinctive populations that have unique needs: people living below the poverty line, parents who work outside the home, Baby Boomers at or nearing retirement, children with incarcerated parents and with parents deployed in the military. The well-being of children requires support for parents and caregivers; and safe afterschool activities for children to foster their development into contributing members of society. With a changing economy, financial stability is on the minds of many Missourians. Families and communities are concerned about the lack of safe and affordable housing. High utility costs have increased the interest in weatherization, reducing energy consumption and alternative energy systems to save money. Many children and families lack health insurance coverage, placing a greater burden on family budgets, as well as health and well-being.

Economic development and entrepreneurship

The current economic situation has brought realization that economic stability for businesses, agriculture, communities and families will have to be achieved in new ways. Flexibility will be the key. Development of place-based economies that rely on local resources and skills will create sustainability. Entrepreneurship will create jobs and sales-tax revenue for local government. "Buy local" efforts will keep more money in those communities. Technology gives entrepreneurs the ability to locate anywhere — communities large or small, urban or rural. With economic opportunity, young people will have reason to return to their communities. Industries such as biotechnology, sustainable energy, clean technology and media/entertainment provide growth opportunities. They also will require skilled workers, so more young people will need encouragement to enter the science, engineering and technology fields. Workers also will need ongoing education and training to stay current or retool for new industries. The non-profit sector is growing and is another area for job development while meeting people's needs. Increased economic value of environmental processes and outputs, such as carbon sequestration credits, will increase the interest of landowners.

Food, Food Systems and Production

Competition, energy independence and human health are putting new pressures on food systems. Global market competition is on the rise, as are U.S. commodity exports, while the meat export market is rebuilding. Though U.S. consumer food prices have risen at less than the rate of general inflation, consumers will see dramatic increases in food prices in real terms as world demand for commodities grows. The growth of grain-based fuels will create a struggle to balance the demands for food and energy. Farm equity is increasing at the same time farm operators can expect decreases in government payments.

Human health concerns, particularly the rate of obesity and overweight, are generating interest in fresh, healthful, locally grown foods, giving farmers new options for profitability. Local foods also can contribute to the local economic base with jobs and dollars staying in the community.

Each of these issues has public policy components, which may be complex, contentious and interconnected. Public participation ensures that people have influence in the future of their communities through democratic process.

It is important to remember that these challenging issues also present opportunities that can create a better quality of life for Missourians. The programming response to these issues is evident throughout the planned programs that follow.

Estimated Number of Professional FTEs/SYs total in the State.

Year	Extension		Research	
	1862	1890	1862	1890
2012	235.3	0.0	0.0	0.0
2013	235.3	0.0	0.0	0.0
2014	235.3	0.0	0.0	0.0
2015	235.3	0.0	0.0	0.0
2016	235.3	0.0	0.0	0.0

II. Merit Review Process

1. The Merit Review Process that will be Employed during the 5-Year POW Cycle

- Internal University Panel
- External Non-University Panel

2. Brief Explanation

In addition to reviewing the stakeholder input from all 114 counties, regional and state faculty surveyed current literature to identify state-wide demographics, national and state trends, and discipline specific research related to program effectiveness. Based on this review, state-wide priority needs were identified and programs in response to those priorities were developed by faculty. The program priorities along with their program logic models were then reviewed by the appropriate state program leader to assure the programs are both relevant and of high quality.

State-wide program priorities will be utilized by regional faculty as they develop a local programming response to their county's identified needs. The resulting proposed county program plan will then be taken to the county council for their acceptance. Once approved, the programming will be delivered and the impact evaluated.

By establishing this ongoing merit review process of: stakeholder needs identification; program response by faculty; stakeholder feedback; and outcome assessment, the quality and relevance of programs will be maintained.

III. Evaluation of Multis & Joint Activities

1. How will the planned programs address the critical issues of strategic importance, including those identified by the stakeholders?

Planned programs will address the critical issues of strategic importance, including those identified by our stakeholders, through a process of a continuous cycle of: stakeholder input; programming response; evaluation; and stakeholder feedback. Based on the input of our stakeholders we have identified priority programs. This programming response will be

presented to our stakeholders for their acceptance. If accepted the programs will be delivered and their outcomes evaluated. This evaluation information in turn will be shared back with our stakeholders for their feedback. Based on that input, a programming response will be made and the cycle will begin again. To make sure we have identified national and state-wide trends we gathered input from our regional and state faculty to identify critical issues of strategic importance. Our involvement in multi-state initiatives, particularly the North Central region, also informs us as to critical issues of strategic importance.

2. How will the planned programs address the needs of under-served and under-represented populations of the State(s)?

Extension faculty members include goals in their individual performance expectations that address the needs of un-served or under-served audiences. As a result, planned programs at all levels will address the needs of under-represented populations of the state by responding to identified needs. Faculty will provide the programming, evaluate programs, and then return to these populations to gather their feedback. Based on that input, a programming response will be made and the cycle will begin again. Extension has also created a strategic plan for diversity and one component of that plan is related to programs and services. Action steps and performance indicators have been established to evaluate our progress. In addition, we have developed and implemented a statewide awareness campaign to heighten the awareness of Extension programs to those individuals who are not familiar with our services. We have also diversified our delivery methods with such tools as web and two-way interactive video to reach under-served audiences.

3. How will the planned programs describe the expected outcomes and impacts?

Each planned program is developed using a program logic model that describes the expected outcomes and impacts. Extension faculty will report against these logic models to measure outcomes and impacts. This information is being shared with our stakeholders at county council meetings and by posting our Plan of Work which includes the program logic models on our Extension website.

4. How will the planned programs result in improved program effectiveness and/or

The planned programs will result in improved program effectiveness by refining and expanding our use of the program logic model emphasizing the use of a variety of evaluation tools designed to measure both output and outcomes. This input will continue to be gathered over the course of the plan of work cycle in order to determine program effectiveness from the perspective of a variety of stakeholders. The planned programs will result in more efficiency by the use of technology particularly distance education, web sites, and use of web-based software designed for both audio and web. The design of our organizational structure, in using regional faculty to serve multiple counties, also allows us to be more efficient in our program delivery particularly when utilizing technology such as web sites, web-based audio, or interactive video. We will also continue to maximize our use of volunteers in many of our programs and expand our use of multi-state programming when appropriate.

IV. Stakeholder Input

1. Actions taken to seek stakeholder input that encourages their participation

- Targeted invitation to traditional stakeholder groups
- Targeted invitation to non-traditional stakeholder groups
- Survey of traditional stakeholder groups
- Survey of traditional stakeholder individuals
- Survey specifically with non-traditional groups

- Survey specifically with non-traditional individuals

Brief explanation.

University of Missouri Extension has gathered opinions of Missouri residents in a variety of ways to assist us in determining the critical issues of strategic importance. Our goals in developing the methodologies for the stakeholder input process were to: diversify the audiences in order to gain a better perspective on the reach and effectiveness of our programs; to diversify the gathering process so that we could utilize the feedback for both program prioritization and also to gain knowledge as to preferred delivery methods as well as general awareness of our programs; and finally to gather some program specific information and diversity needs information in a more substantive way in order to gain a better understanding of the issues underlying the needs in order for us to be more effective in our programming response.

2(A). A brief statement of the process that will be used by the recipient institution to identify individuals and groups stakeholders and to collect input from them

1. Method to identify individuals and groups

- Use Advisory Committees
- Use Internal Focus Groups
- Use External Focus Groups

Brief explanation.

2(B). A brief statement of the process that will be used by the recipient institution to identify individuals and groups who are stakeholders and to collect input from them

1. Methods for collecting Stakeholder Input

- Meeting with traditional Stakeholder groups
- Meeting with traditional Stakeholder individuals
- Meeting specifically with non-traditional groups
- Survey specifically with non-traditional groups
- Meeting specifically with non-traditional individuals
- Survey specifically with non-traditional individuals

Brief explanation.

3. A statement of how the input will be considered

- In the Budget Process
- To Identify Emerging Issues
- Redirect Extension Programs

- In the Staff Hiring Process
- In the Action Plans
- To Set Priorities

Brief explanation.

V. Planned Program Table of Content

S. No.	PROGRAM NAME
1	Home Horticulture and Environment
2	Livestock Production System - Global Food Security and Hunger
3	Integrated Crop Management Systems - Global Food Security and Hunger
4	Enhancing the Sustainable Management of Missouri's Natural Resources
5	Profit Focused Agriculture
6	Water Resource Protection and Management
7	Managing Forages for Profitable Animal Production - Global Food Security and Hunger
8	Creating Simple Environments for Positive Youth Development
9	Creating Collaborative Environments for Positive Youth Development
10	Creating Complex Environments for Positive Youth Development
11	Volunteer Development
12	Built Environments and Sustainable Energy
13	Strengthening Families
14	Personal Financial Management
15	Food Safety
16	Nutrition, Health and Physical Activity
17	Ensuring Safe Communities
18	Sustainable and Viable Communities
19	Business Development

V(A). Planned Program (Summary)

Program # 1

1. Name of the Planned Program

Home Horticulture and Environment

2. Brief summary about Planned Program

There is increasing awareness of the physical and psychological benefits people receive from gardening. However, success with gardening requires some basic knowledge about selection, planting and care of plants. Gardening with insufficient information may result in failure, wasted money, physical injury and environmental degradation from soil erosion or misuse of pesticides. This program is designed to provide home gardeners with research-based horticultural information. Through Master Gardener training, youth education (Garden 'N Grow), workshops, demonstration plantings, newsletters, press releases and other methods, gardeners will gain information that will allow them to reap the benefits of maintaining healthy turf, ornamental, fruit and vegetable plantings while being good stewards of the environment.

3. Program existence : Mature (More than five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
101	Appraisal of Soil Resources	5%			
205	Plant Management Systems	50%			
211	Insects, Mites, and Other Arthropods Affecting Plants	10%			
212	Pathogens and Nematodes Affecting Plants	10%			
213	Weeds Affecting Plants	15%			
216	Integrated Pest Management Systems	10%			
	Total	100%			

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

Gardening is the most popular hobby in the U.S. There is a growing awareness both among the general public and health professionals of the importance of plants to physical and psychological well-being. In addition to aesthetic improvements in the home environment, planting of turf, trees, shrubs,

perennials and flowers provides exercise and a sense of accomplishment, reduces energy costs and adds value to the home. Fresh fruits and vegetables produced in home gardens are a healthy supplement to the diets of many Missourians. Gardening also fulfills a need on the part of people several generations removed from the farm to work with the soil. The benefits of gardening to quality of life can be realized by people of all ages and income levels. Young people can learn a great deal about agriculture and gain a sense of responsibility and accomplishment from participating in gardening, either as a family or in project-oriented activities. Older people get exercise, enjoyment and a sense of purpose from working with plants. Working people benefit greatly from the relaxation and stress relief they derive from gardening activities. The growth of the Master Gardener program is indicative of the great demand for horticultural information. There are more than 2,000 active Master Gardeners in Missouri working in 110 counties. Access to high-quality horticultural information is crucial for a broad spectrum of Missourians to take advantage of the many benefits of gardening. Unbiased research-based information on selecting, planting, and maintaining fruit, vegetable and ornamental species around the home is a key element in gardening success. Additionally, information on effective and environmentally responsible pest management strategies around the home is extremely important, not only to ensure gardening success, but also to prevent damage to human health and the environment.

2. Scope of the Program

- In-State Extension
- In-State Research
- Multistate Extension
- Integrated Research and Extension

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

There are multiple sources of horticultural information. Too many of Missouri's citizens must rely on their neighbors, garden centers, home improvement stores, magazines and broadcast media for most of their information on gardening. In many instances, employees in garden centers are not well trained in horticulture and get much of their information from suppliers of the plants and pest control products they sell. University of Missouri Extension is one of only a few Missouri sources of unbiased information on gardening. But for Extension to remain a reliable source of information, it must be able to react quickly and be able to reach many highly dispersed consumers. Dissemination of high-quality, unbiased, research-based horticultural information to a broad spectrum of Missourians would allow tens of thousands more of the state's citizens to reap the benefits of improved gardening success. This effort would also significantly reduce the risk of environmental degradation due to improper use of pesticides by homeowners.

2. Ultimate goal(s) of this Program

Individuals with an interest in gardening will become more aware of the importance of plants in people's lives and will be able to select varieties of fruits, vegetables and ornamentals best adapted to Missouri conditions. They will increase their understanding of the basics of plant health care, including soils, pruning, fertilization, and management of disease problems and common insect pests in and around the home. Nursing home managers will become more aware of the potential for horticultural plants to improve the quality of life for residents and will adopt Horticultural Therapy programs. The University of Missouri Extension Home Horticulture and Environment program will contribute to the beautification of Missouri communities to an increased sense of community pride. More Missourians of all ages and income levels will lead more active, fulfilled lives and will enjoy improved mental and physical health. More Missourians will have a sense of connection with nature.

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2012	9.0	0.0	0.0	0.0
2013	9.0	0.0	0.0	0.0
2014	9.0	0.0	0.0	0.0
2015	9.0	0.0	0.0	0.0
2016	9.0	0.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

Some of the major activities under this program are Master Gardener training (core course), advanced Master Gardener training, Garden 'N Grow training and workshops for garden center employees. Other activities include the Plants of Merit and HortLine programs in cooperation with Missouri Botanical Gardens, homeowner workshops, Lifespan Learners Series, Responsible Home Horticulture Series, booths at home shows and fairs, Plant a Row for the Hungry, Horticulture Therapy in Nursing Homes and the Home*A*Syst Program.

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension

Direct Methods	Indirect Methods
<ul style="list-style-type: none"> ● Education Class ● Workshop ● Group Discussion ● Demonstrations 	<ul style="list-style-type: none"> ● Newsletters ● TV Media Programs ● Web sites other than eXtension ● Other 1 (News Releases) ● Other 2 (Exhibits)

3. Description of targeted audience

The ultimate target audience of this program is individuals with an interest in gardening. However, to reach this diverse and highly dispersed audience, MU Extension will need to use several community multipliers of information. One highly important audience will be the Master Gardener volunteers. After receiving training, Master Gardeners contribute volunteer hours to assist with dissemination of horticultural information through speaking engagements, workshops, information booths, youth programs, Extension Center hot lines, demonstration plantings and other activities. Youth groups including 4-H are another important target audience. Many young people will enroll in the Garden 'N Grow program.

V(G). Planned Program (Outputs)

NIFA no longer requires you to report target numbers for standard output measures in the Plan of Work. However, all institutions will report actual numbers for standard output measures in the Annual Report of Accomplishments and Results. The standard outputs for which you must continue to collect data are:

- Number of contacts
 - Direct Adult Contacts
 - Indirect Adult Contacts
 - Direct Youth Contacts
 - Indirect Youth Contact
 - Number of patents submitted
 - Number of peer reviewed publications
- Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(H). State Defined Outputs

1. Output Measure

- Provide in-service training session (s) for regional Extension specialists on an annual basis.
 - Develop or revise guide sheets a year for regional extension specialists to use in producer meetings.
 - Print and electronic newsletters devoted to pest and horticulture crop management will be developed and distributed to regional specialists and other clientele.
- Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(I). State Defined Outcome

O. No	Outcome Name
1	Master Gardeners, garden center employees, retired persons and home gardeners will increase their knowledge of basic plant growth, fertility, plant care, varieties, diseases.
2	4-H members & youth will improve their gardening skills and awareness of where food comes from through the Garden & Grow program.
3	Increase the number of Missourians participating in gardening activities.
4	Increase use of soil sampling and plant diagnostic services by home gardeners.
5	Increase the number of Master Gardner volunteer hours and contacts.

Outcome # 1

1. Outcome Target

Master Gardeners, garden center employees, retired persons and home gardeners will increase their knowledge of basic plant growth, fertility, plant care, varieties, diseases.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:1500 2013:1500 2014:1500 2015:1500 2016:1500

3. Associated Knowledge Area(s)

- 101 - Appraisal of Soil Resources
- 205 - Plant Management Systems
- 211 - Insects, Mites, and Other Arthropods Affecting Plants
- 212 - Pathogens and Nematodes Affecting Plants
- 213 - Weeds Affecting Plants
- 216 - Integrated Pest Management Systems

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 2

1. Outcome Target

4-H members & youth will improve their gardening skills and awareness of where food comes from through the Garden & Grow program.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:400 2013:500 2014:500 2015:500 2016:500

3. Associated Knowledge Area(s)

- 101 - Appraisal of Soil Resources
- 205 - Plant Management Systems
- 211 - Insects, Mites, and Other Arthropods Affecting Plants
- 212 - Pathogens and Nematodes Affecting Plants
- 213 - Weeds Affecting Plants
- 216 - Integrated Pest Management Systems

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 3

1. Outcome Target

Increase the number of Missourians participating in gardening activities.

2. Outcome Type : Change in Action Outcome Measure

2012:3300 2013:3500 2014:3000 2015:3000 2016:3000

3. Associated Knowledge Area(s)

- 101 - Appraisal of Soil Resources
- 205 - Plant Management Systems
- 211 - Insects, Mites, and Other Arthropods Affecting Plants
- 212 - Pathogens and Nematodes Affecting Plants
- 213 - Weeds Affecting Plants
- 216 - Integrated Pest Management Systems

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 4

1. Outcome Target

Increase use of soil sampling and plant diagnostic services by home gardeners.

2. Outcome Type : Change in Action Outcome Measure

2012:0 2013:0 2014:0 2015:0 2016:0

3. Associated Knowledge Area(s)

- 101 - Appraisal of Soil Resources
- 205 - Plant Management Systems
- 211 - Insects, Mites, and Other Arthropods Affecting Plants
- 212 - Pathogens and Nematodes Affecting Plants
- 213 - Weeds Affecting Plants
- 216 - Integrated Pest Management Systems

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 5

1. Outcome Target

Increase the number of Master Gardner volunteer hours and contacts.

2. Outcome Type : Change in Action Outcome Measure

2012:3000

2013:3000

2014:3000

2015:3000

2016:3000

3. Associated Knowledge Area(s)

- 101 - Appraisal of Soil Resources
- 205 - Plant Management Systems
- 211 - Insects, Mites, and Other Arthropods Affecting Plants
- 212 - Pathogens and Nematodes Affecting Plants
- 213 - Weeds Affecting Plants
- 216 - Integrated Pest Management Systems

4. Associated Institute Type(s)

- 1862 Extension

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Competing Public priorities
- Competing Programmatic Challenges

Description

{NO DATA ENTERED}

V(K). Planned Program - Planned Evaluation Studies

Description of Planned Evaluation Studies

{NO DATA ENTERED}

V(A). Planned Program (Summary)

Program # 2

1. Name of the Planned Program

Livestock Production System - Global Food Security and Hunger

2. Brief summary about Planned Program

The Missouri Livestock is a diverse industry but during this program planning period the University of Missouri Extension Livestock Production Systems Program will focus on the two largest segments of the industry in Missouri - Beef & Pork. The programs will focus on the following:

(A) Beef - Show-Me-Select: Many of the industry related issues confronting modern beef production ultimately begin with selection and management of replacement beef heifers. The Show-Me-Select Replacement Heifer Program will address a number of topic areas using multiple delivery methods to target program participants representing a wide range of backgrounds. Diversity among producer participants will include differences in herd size, forage availability, level of management, years of experience in the industry, level of education and more. The primary goal for the program is to improve economic viability and resulting competitiveness of Missouri beef producers resulting from improvements in herd management and genetics. A primary aim in accomplishing this goal is the long-term sustainability of farms and ranches involved with the production and sale of beef cattle in concert with environmental stewardship of the land and water resource. Educational programming will assist learner participants in various aspects of beef herd management beginning with the heifer portion of the calf crop. Programming areas will address a range of learning needs and include: Knowledge of principles involved with breeding/mating decisions that will result in improved genetics of heifers retained for breeding purposes; Knowledge of herd health management that will improve bio-security of farms and ranches involved in the cow-calf enterprise; Knowledge of improved methods of reproductive management that include estrus synchronization, artificial insemination, and embryo transfer; Knowledge of nutritional management of replacement beef heifers that is important to long-term production and reproductive efficiency; Knowledge of economics related to replacement beef heifer development and marketing; Knowledge of proper animal identification that will support on-farm record keeping and contribute to bio-security and product traceability.

(B) Swine - MO-Pork: The program will educate Missouri Pork Producers in application of management protocols and strategies to improve nutrient utilization, reproductive efficiency and management of swine. This includes diet formulation, feeding management, nutrient utilization, gilt development, management of the lactating and early weaned sow, boars in artificial insemination systems, alternative feed ingredients, evaluation of new feed ingredients, grain quality, antibiotic alternatives, animal welfare, evaluations of feeders and livestock waterers. Work will be aimed at impacts of early pig performance on future production efficiencies, as well as the more immediate measures such as piglet weaning weights, death loss, pigs weaned per sow, and growth performance. Additionally, work will move toward understanding and abatement of seasonally impaired reproduction in females and males and establishing diet formulations aimed at optimizing nutrient requirements for pigs during all phases of the life cycle. The MO-Pork program will evaluate feeds and ration management practices as well as provide detailed recommendations for producers to implement in their specific pork operations. Adopting more efficient feed management practices will assist Missouri pork producers to enhance the profitability and viability of their operations. The ability of pork producers to adopt feed management recommendations and implement the associated technologies depends on the genetic background of the pigs, facility design, labor required, financial constraints and the management goals of the pork operation.

3. Program existence : Mature (More than five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
301	Reproductive Performance of Animals	40%			
302	Nutrient Utilization in Animals	25%			
303	Genetic Improvement of Animals	25%			
307	Animal Management Systems	5%			
308	Improved Animal Products (Before Harvest)	5%			
	Total	100%			

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

Show-Me-Select: Beef farms are major contributors to the Missouri agricultural economy. Missouri ranks second in the U.S. in total number of beef cows in production, with 2,062,000 cows on nearly 60,000 farms. Revenue generated from cattle production in 1999 contributed \$890 million to Missouri's economy. Over a 10-year period the value of Missouri cattle production is nearly tied with the value of Missouri soybean production as the number one commodity in the state. In 1999, U.S. beef production accounted for approximately 62 percent of U.S. total meat production, and cattle production accounted for 73 percent of total U.S. gross livestock income (USDA, 2000). Beef enterprises are finding it increasingly difficult, however, to compete in a global marketplace where large producers use economies of scale to be more profitable. This model outlines a process designed to increase profitability of beef farms involved with the production and sale of beef cattle. Best Management Practices for replacement beef heifers, when collectively viewed as a "program", can assist producers in more effectively managing reproduction and production. These practices ensure heifers entering a herd, as raised or purchased replacements, add value to the general performance and productivity of herds both immediately and in the long-term (Patterson et al., 2000).

MO-Pork: Traditional pork producers with 100 to 600 sows in a farrow-finish enterprise are often overwhelmed with the growth statistics of swine operations in the top 10 percent. For many producers, the prospect of competing with a system that includes 2,500-sow farrowing sites, associated nursery sites and numerous finishing locations is too much to contemplate. These traditional swine producers know their costs of production are competitive, but they remain confused as to their abilities to make appropriate strategic decisions regarding the direction of their swine enterprise. In addition the use of artificial insemination has increased from less than 25 percent to more than 85 percent in the past 10 years. This coupled with tighter profit margins, has led producers to provide much higher levels of management to the farms. In most cases boars are housed in separate facilities where they can be provided optimal

management, but there is little data to identify optimal management. Artificial insemination allows a single boar to be used in mating 10 to 20 times as many sows as can be mated naturally. This allows the use of superior boars but also means inadequate identification of merit will result in the more widespread use of inferior boars. Another measure of production efficiency is feed efficiency because feed cost represents about 70 percent of the total cost of pork production. Any feed management practice that will improve growth performance and feed efficiency enhances pork producers' profit margins. Other pork production issues of importance to producers are ensuring a quality food product; product safety from terrorism; prevention of disease outbreaks; antibiotic feeding restrictions; neighborhood acceptance of swine operations; health of employees, owners, pigs and the public; labor shortages; and lack of quality and skills in labor.

2. Scope of the Program

- In-State Extension
- In-State Research
- Multistate Extension
- Integrated Research and Extension

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

(A) Show-Me-Select: The University of Missouri initiated the Show-Me-Select Replacement Heifer Program to improve agricultural profitability and viability of farms involved with production and sale of beef cattle. Organized programs, such as Missouri's Show-Me-Select Replacement Heifer Program, are examples that draw on the fundamental basis upon which Extension and the Land Grant System were founded: the use and application of what we know to create knowledge (Patterson, 1998). The success of the program is in great part due to the partnerships developed during delivery of the program. These include: University Extension, College of Agriculture, Food & Natural Resources Division of Animal Sciences, College of Veterinary Medicine, Veterinary Practitioners, Beef Cattle Improvement Association, Cattlemen's Association, Department of Agriculture, and Livestock Marketing Association. Data collection is part of the delivery process and reinforces the development of sound management practices on individual farms regardless of size (Randle, 1999). Producers, along with their veterinarians and extension specialists, analyze data generated on their own farms to focus on action alternatives based on the data. Technology transfer of management practices involved is not size dependent but rather producer dependent in terms of introducing a fundamental change in the approach to management and marketing that will impact future farm profitability. Success of this program lies in effecting change in heifer development practices on farms of the target audience. These efforts support program priorities outlined in University of Missouri Extension 21st Century Strategic Direction. Missourians involved with the production and sale of beef cattle benefit from knowledge, skills, practices and policies derived from the Show-Me-Select Replacement Heifer Program which should result in improved profitability and enhanced economic viability of participating farms.

(B) MO-Pork: Pork producers are interested in improving efficiency through improved management. They are rapidly incorporating proven production technologies. There is little public funding for applied research, and much of that work is done by individual farms. Some producers will share their data if asked but are not motivated to do so on their own. If producers receive guidance in design of "on-farm trials" it is possible one producer's applied research can provide valuable information for other producers. The MO-Pork program will be focused in regions of Missouri where swine production is a priority. Thirty-seven counties in Missouri (37/114, 32%) listed swine production as a priority program for their county in the FY00-03 Plan of Work, which suggests the potential for these counties to benefit from participation in the

MO-Pork program. In addition, 79 counties (69%) in Missouri during 2000 had more than 5,000 head marketed annually (Missouri Farm Facts, 2001). These additional 42 counties in Missouri will also be targeted areas for the MO-Pork program as there is opportunity for improvement and increased pork production due to community acceptance.

2. Ultimate goal(s) of this Program

(A) Show-Me-Select: This program is unique in that it is first and foremost, an educational program targeted at improving production efficiency through increased use of existing technology, coupled with the marketing component. The opportunity to critically assess impact on this target audience from both a production and economic aspect is therefore significant. This program will continue to grow significantly over the course of the next several years as the target audience expands. The outcomes of this program can be expected to occur in three different ways: 1) Programmatic or Extension-related outcomes; 2) Individual farm outcomes; 3) Collective or statewide agricultural outcomes. Specific outcomes include the following: Regional Extension Livestock Specialists, farmers, veterinarians, and allied industry representatives will acquire knowledge and skills to aid in the successful adoption and implementation of existing management practices to improve beef heifer development through distance-learning applications; Regional Extension Livestock Specialists, practicing veterinarians, producers, and future professionals will acquire new knowledge and skills to aid in the adoption of emerging biotechnologies in heifer development, including estrus synchronization and artificial insemination; Regional Extension Livestock Specialists, practicing veterinarians and producers will be able to identify and discuss the economic implications of implementing production practices associated with the Show-Me-Select Replacement Heifer Program; Participating producers will develop a plan that establishes the Show-Me-Select Replacement Heifer Program as a producer owned and managed system.

(B) MO-Pork: The program will benefit Missouri citizens through knowledge, skills, practices and policies that enhance the economic viability and profitability of participating Missouri producers. The overall program goal of MO-Pork is to improve the competitiveness and diversity of Missouri swine production enterprises, which will increase the number and types of swine enterprises in operation and the net value of those swine enterprises. Benefits of MO-Pork participants and the state of Missouri generally include educational and technical materials that promote prosperity amid the rapid structural changes in the U.S. swine industry.

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2012	15.0	0.0	0.0	0.0
2013	15.0	0.0	0.0	0.0
2014	15.0	0.0	0.0	0.0
2015	15.0	0.0	0.0	0.0
2016	15.0	0.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

(A) The learner-focused outcomes of this program will expand the scope of the Missouri Show-Me-Select Replacement Heifer Program. These outcomes include: 1) Regional Extension Livestock Specialists, veterinarians, farmers, and allied industry representatives will acquire knowledge and skills to aid in the successful adoption and implementation of existing management practices to improve beef heifer development; 2) Regional Extension Livestock Specialists, practicing veterinarians, producers, and future professionals will acquire new knowledge and skills to aid in the adoption of emerging biotechnologies in beef heifer development, including estrus synchronization and artificial insemination; 4) Regional Extension Livestock Specialists, practicing veterinarians and producers will be able to identify and discuss the economic implications of implementing production practices associated with the Show-Me-Select Replacement Heifer Program; and 5) Participating producers will develop a plan that establishes the Show-Me-Select Replacement Heifer Program as a producer owned and managed system.

(B) The MO-Pork program will include the following activities: Promotion of efficient production and management practices (Pork Industry Handbook, MU guide sheets and Midwest Plan Service Handbooks); National Swine Nutrition Guide (NSNG); Use of Manual 144/202 "The Missouri System of Swine Production"; On-farm data collection used to evaluate production and economic endpoints; Focused Management Schools for MO-Pork participants, artificial insemination course, Back to the Basics: Farrowing School, Sow Manager's Conference, Pigs to Plate: Adventures in Meat Quality Seminar, Health Summit, finishing short course, nursery management course, ventilation short course; Delivery of Pork Quality Assurance Program for MO-Pork participants; Delivery of new technologies in the swine industry to MO-Pork participants; Computer models/PDA record keeping programs; World Pork Expo and other conferences; Education about niche production markets and specialization opportunities; Media coverage of the MO-Pork program; Farm visits; On-farm research trials; Workshops; Meetings; and Consultation.

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension

Direct Methods	Indirect Methods
<ul style="list-style-type: none"> ● Education Class ● Workshop ● Group Discussion ● One-on-One Intervention ● Demonstrations ● Other 1 (Professional Development) 	<ul style="list-style-type: none"> ● Newsletters ● TV Media Programs ● Web sites other than eXtension ● Other 1 (News Releases) ● Other 2 (Guides)

3. Description of targeted audience

(A) The audiences targeted in this program are farmers across Missouri actively involved in cow-calf production and marketing. There are no limitations placed on the program in terms of farm or size of cow-herd. The program to date has involved herds as small as 8 cows and as large as 6,000 cows. Numerous sectors of the Missouri livestock industry come together as a result of this program, including University Extension, the Division of Animal Sciences, the University of Missouri College of Veterinary Medicine, the Commercial Agriculture Program, the Missouri Beef Cattle Improvement Association, the Missouri Cattlemen's Association, the Missouri Department of Agriculture, and the Missouri Livestock Marketing Association.

(B) The target audience will include people who own swine operations, work on swine farms, or

provide technical support to people who own or work on swine farms (e.g., veterinarians, feed dealers). In addition, MO-Pork will target beginning Missouri pork producers, expanding Missouri pork producers, and industry personnel such as Missouri grain producers (interested in adding value to their crops).

V(G). Planned Program (Outputs)

NIFA no longer requires you to report target numbers for standard output measures in the Plan of Work. However, all institutions will report actual numbers for standard output measures in the Annual Report of Accomplishments and Results. The standard outputs for which you must continue to collect data are:

- Number of contacts
 - Direct Adult Contacts
 - Indirect Adult Contacts
 - Direct Youth Contacts
 - Indirect Youth Contact
 - Number of patents submitted
 - Number of peer reviewed publications
- Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(H). State Defined Outputs

1. Output Measure

- Provide in-service training session(s) for regional Extension specialists on an annual basis.
 - Regional and state specialists will conduct demonstrations on an annual basis.
 - Regional specialists will assist with producer sales.
 - Develop or revise guide sheets on an annual basis for regional Extension specialists to use in producer meetings.
 - Develop or revise manual(s) on an annual basis for regional Extension specialists to use in producer meetings.
- Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(I). State Defined Outcome

O. No	Outcome Name
1	Participants will maintain or increase livestock production efficiencies and enhance marketing opportunities resulting in improved economic viability and profitability for their operation.
2	Participants will acquire knowledge and skills to aid in the successful adoption and implementation of existing management practices or emerging technology to improve livestock production efficiency and productivity.
3	Annual economic impact to the state's economy from improvements on livestock production.

Outcome # 1

1. Outcome Target

Participants will maintain or increase livestock production efficiencies and enhance marketing opportunities resulting in improved economic viability and profitability for their operation.

2. Outcome Type : Change in Action Outcome Measure

2012:0	2013:0	2014:0	2015:0	2016:0
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3. Associated Knowledge Area(s)

- 301 - Reproductive Performance of Animals
- 302 - Nutrient Utilization in Animals
- 303 - Genetic Improvement of Animals
- 307 - Animal Management Systems
- 308 - Improved Animal Products (Before Harvest)

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 2

1. Outcome Target

Participants will acquire knowledge and skills to aid in the successful adoption and implementation of existing management practices or emerging technology to improve livestock production efficiency and productivity.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:0	2013:0	2014:0	2015:0	2016:0
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3. Associated Knowledge Area(s)

- 301 - Reproductive Performance of Animals
- 302 - Nutrient Utilization in Animals
- 303 - Genetic Improvement of Animals
- 307 - Animal Management Systems
- 308 - Improved Animal Products (Before Harvest)

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 3

1. Outcome Target

Annual economic impact to the state's economy from improvements on livestock production.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:0 2013:0 2014:0 2015:0 2016:0

3. Associated Knowledge Area(s)

- 301 - Reproductive Performance of Animals
- 303 - Genetic Improvement of Animals
- 307 - Animal Management Systems
- 308 - Improved Animal Products (Before Harvest)

4. Associated Institute Type(s)

- 1862 Extension

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Programmatic Challenges
- Other (Marketing Fluctuations)

Description

{NO DATA ENTERED}

V(K). Planned Program - Planned Evaluation Studies

Description of Planned Evaluation Studies

{NO DATA ENTERED}

V(A). Planned Program (Summary)

Program # 3

1. Name of the Planned Program

Integrated Crop Management Systems - Global Food Security and Hunger

2. Brief summary about Planned Program

The Missouri Integrated Crop Management Systems program will use multiple delivery methods to target a broad range of learners on various aspects of 21st century sustainable crop production. The major overriding goal for the program is to change the behavior of Missouri producers and improve their management systems to remain economically competitive. Additionally, the program is intended to educate producers to meet requirements for pesticide applicator certification and recertification compliance and how to implement practices that will minimize their impact on the environment. These research-based educational programs will assist these learners to improve all aspects of their crop management over a diverse range of crops, soils, farm sizes, and crop management options. Some major learning outcomes covered in this program will include; Producers will gain knowledge related to crop genetics; the interactions between management choices, including cropping systems, planting date, seeding rate, tillage, nutrient management, soil management, pest management and harvest management; how Integrated Crop Management programs (plant protection, genetically improved crops, identity-preserved crops, precision agriculture) fit together and fit into the overall crop production picture; the limitations of different sources of information used in crop management decisions. Some major learning needs addressed through this program include: how to successfully adopt and integrate pest management into their management systems; how to develop and implement a plant bio-security plan, use scouting as a tool, meet the legal requirements to the use, storage and transport of hazardous materials including pesticides.

3. Program existence : Mature (More than five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
102	Soil, Plant, Water, Nutrient Relationships	20%			
104	Protect Soil from Harmful Effects of Natural Elements	10%			
205	Plant Management Systems	40%			
216	Integrated Pest Management Systems	15%			
405	Drainage and Irrigation Systems and Facilities	10%			
512	Quality Maintenance in Storing and Marketing Non-Food Products	5%			
	Total	100%			

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

Nearly 80 percent of Missouri's 29 million acres are devoted to crop and rangeland. Agricultural cash receipts total about \$4 billion annually, making agriculture one of the top two industries in Missouri. Nearly half of agricultural cash receipts come from crop sales, and receipts from animal sales depend heavily on the production of feed crops not counted in cash receipts. Studies have repeatedly documented that crop management practices affecting production costs and production levels are the main determinants of profitability. Improvements in crop management systems will enhance economic viability for most Missourians and not just those directly involved in agriculture. Because land use in Missouri is dominated by agriculture, crop management systems have a significant impact on the environment, especially on water quality. Missouri has some of the most erodible soils in the U.S., leading to sediment contamination of surface waters and loss of valuable topsoil. Improved crop management systems have led to reduced erosion rates over the past 20 years, but erosion rates are still higher than the rate of topsoil formation, and sediment is still one of the most serious sources of water quality impairment. Nutrients and pesticides originating from agriculture also can adversely affect water quality. Thus, improvements in crop management practices and systems are essential to sustaining a healthy environment. With a wide range of crops (Missouri ranks in the top twelve states for seven different crops), soils, farm sizes, and production practices available, cropping systems in Missouri are diverse and complex. University of Missouri Extension expertise is well suited for educational programming spanning this diversity. The use of pesticides is a necessary tool in the effective management of agricultural pests. The vast majority of Missouri's producers resort to pesticides as a significant portion of their integrated pest management plans. To legally purchase and apply restricted-use pesticides, applicators must meet certification and licensing requirements as set by the Missouri Department of Agriculture. The overall goal of these programs is to help producers make choices that will improve their crop management systems and keep Missouri's agricultural economy strong while protecting natural resources. Disseminating results of Missouri-based crop research is a fundamental mechanism that will enable the program to meet this goal. Crop producers and crop service providers are often highly motivated to change their behaviors and improve their management systems to remain economically competitive. They are also increasingly motivated by a desire to minimize their impact on the environment. Educational programming is needed to help translate these motives into improved management that meets individual goals and contributes to the

economic viability of Missouri. Improvements need to be made in all aspects of crop management over a diverse range of crops, soils, farm sizes and crop management options. Current crop production systems are sophisticated and have been honed through global competition, so only up-to-date information based on appropriate (usually local) research is useful for guiding behavior changes.

2. Scope of the Program

- In-State Extension
- In-State Research
- Multistate Extension
- Integrated Research and Extension

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

Missouri's crops are produced in a highly competitive industry. This competition occurs at local, state, regional and global levels. Successful entities are economically viable even when profit margins are small. Competition is beneficial to consumers because it sharpens production efficiency, but it means that crop producers must be constantly upgrading their production systems. University of Missouri Extension is one of only a few Missouri sources of unbiased information on crop production and management. But for Extension to continue to be an effective source of information, it must be able to respond quickly to rapidly changing influences. New crop management systems, including agroforestry pest management, water quantity and quality, regulatory compliance and production of alternative crops or crops for niche markets, will become more accepted as knowledge increases. Sound science from carefully designed experiments, knowledgeable personnel, and efficient means of disseminating information are essential if Extension is to meet its responsibility to enhance economic development in all segments and regions of Missouri.

2. Ultimate goal(s) of this Program

Crop producers and their advisers would not only be aware of the latest research related to crop, water, and soil management, but also would learn appropriate techniques of using that information to build efficient crop management systems. Examples of cropping systems components include, but are not limited to, cultivar selection, appropriate crop rotations, harvesting techniques, optimal nutrient management, reduced soil erosion and pest management practices based on scouting. The ultimate goal is to sustain an economically viable crop production industry in Missouri while reducing potential negative impacts of crop production systems on the environment. This will enhance the economic and social viability of rural and urban Missouri.

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2012	21.0	0.0	0.0	0.0
2013	21.0	0.0	0.0	0.0
2014	21.0	0.0	0.0	0.0

Year	Extension		Research	
	1862	1890	1862	1890
2015	21.0	0.0	0.0	0.0
2016	21.0	0.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

Campus-based and region-based faculty members will conduct several regional workshops and short courses in partnership with commodity groups and private industry. Venues include commodity district meetings, soil and crop conferences, regional short courses, field days, and on-line and demonstration projects.

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension

Direct Methods	Indirect Methods
<ul style="list-style-type: none"> ● Education Class ● Workshop ● Group Discussion ● One-on-One Intervention ● Demonstrations ● Other 1 (Conferences) ● Other 2 (Clinics) 	<ul style="list-style-type: none"> ● Newsletters ● Web sites other than eXtension

3. Description of targeted audience

The primary target audiences are crop producers and their advisers and private and commercial pesticide applicators. Programs will be developed for crop producers with a diversity of farm sizes, crops produced, and land resource bases. Crop advisers and service providers are important targets because of their extensive contact with crop and livestock producers, which makes them ideal intermediates in passing on University of Missouri Extension programming to a wider range of producers than could be reached by Extension personnel alone. Because the future of Missouri agriculture depends on young professionals replacing retiring farmers and personnel, youth organizations such as FFA, 4-H, Young Farmers, and their teachers will receive specially designed programs.

V(G). Planned Program (Outputs)

NIFA no longer requires you to report target numbers for standard output measures in the Plan of Work. However, all institutions will report actual numbers for standard output measures in the Annual Report of Accomplishments and Results. The standard outputs for which you must continue to collect data are:

- Number of contacts
 - Direct Adult Contacts
 - Indirect Adult Contacts
 - Direct Youth Contacts
 - Indirect Youth Contact
 - Number of patents submitted
 - Number of peer reviewed publications
- Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(H). State Defined Outputs

1. Output Measure

- Provide in-service training session(s) for regional Extension specialists on an annual basis.
 - Develop or revise guide sheets annually for regional Extension specialists to use in producer meetings.
 - Develop or revise manuals on an annual basis for regional Extension specialists to use in producer meetings.
 - Print and electronic newsletters devoted to pest and crop management will be developed and distributed to regional specialists and other clientele.
- Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(I). State Defined Outcome

O. No	Outcome Name
1	Producers and crop advisors improve their knowledge related to crop management practices and systems such as new cultivars, pest control, IPM, irrigation and new practices.
2	50% of Missouri producers and crop advisors will indicate they have increased knowledge and plan to adopt at least one IPM strategy and/or system(s) into their operation.
3	Two thousand (2,000) private pesticide applicators will meet the legal need of certification by improving their knowledge of pesticides and their use.

Outcome # 1

1. Outcome Target

Producers and crop advisors improve their knowledge related to crop management practices and systems such as new cultivars, pest control, IPM, irrigation and new practices.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:0	2013:0	2014:0	2015:0	2016:0
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3. Associated Knowledge Area(s)

- 102 - Soil, Plant, Water, Nutrient Relationships
- 104 - Protect Soil from Harmful Effects of Natural Elements
- 205 - Plant Management Systems
- 405 - Drainage and Irrigation Systems and Facilities
- 512 - Quality Maintenance in Storing and Marketing Non-Food Products

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 2

1. Outcome Target

50% of Missouri producers and crop advisors will indicate they have increased knowledge and plan to adopt at least one IPM strategy and/or system(s) into their operation.

2. Outcome Type : Change in Action Outcome Measure

2012:0	2013:0	2014:0	2015:0	2016:0
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3. Associated Knowledge Area(s)

- 216 - Integrated Pest Management Systems

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 3

1. Outcome Target

Two thousand (2,000) private pesticide applicators will meet the legal need of certification by improving their knowledge of pesticides and their use.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:0 **2013:0** **2014:0** **2015:0** **2016:0**

3. Associated Knowledge Area(s)

- 216 - Integrated Pest Management Systems

4. Associated Institute Type(s)

- 1862 Extension

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Programmatic Challenges

Description

{NO DATA ENTERED}

V(K). Planned Program - Planned Evaluation Studies

Description of Planned Evaluation Studies

{NO DATA ENTERED}

V(A). Planned Program (Summary)

Program # 4

1. Name of the Planned Program

Enhancing the Sustainable Management of Missouri's Natural Resources

2. Brief summary about Planned Program

An integrated, interdisciplinary program designed to (1) help private landowners practice sound stewardship of our natural resources that will be sustainable from one generation to the next and (2) reconnect the general citizenry to their natural environment and a sustainable land ethic. This program will be conducted through a series of short courses, hands-on workshops, and field days as well as emerging distance learning opportunities such as webinars.

3. Program existence : Mature (More than five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
123	Management and Sustainability of Forest Resources	30%			
125	Agroforestry	10%			
135	Aquatic and Terrestrial Wildlife	30%			
136	Conservation of Biological Diversity	20%			
605	Natural Resource and Environmental Economics	5%			
610	Domestic Policy Analysis	5%			
	Total	100%			

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

Missouri's natural resources have important economic, aesthetic, ecological, recreational, and scientific values. Forest communities and the populations of fish and wildlife they support are essential for maintaining biological diversity; contribute significantly to local economies; are fundamental elements of urban and rural communities; and are integral to the quality of life for all Missourians.

Citizens own approximately 94 percent of the land in Missouri either as a family forest or family farm. Therefore, they are responsible for managing most of the state's natural resource base, including forests,

agricultural lands, prairies and grasslands, wetlands, streams and other natural habitats.

However, family forests are at risk. Whether along the wildland-urban interface or deep in the Ozarks, family forest landowners are under increasing pressure to convert forests and woodlands to 'higher and better' uses. This is particularly true when the land is passed from one generation to the next and no estate plan is in place to insulate heirs from costly inheritance taxes.

Family farms are at risk also. These farmers are being forced to compete in an environment that does not afford the same opportunities as those currently available to corporate farms in conventional agricultural markets. Within this segment of the farm population, millions of acres of underutilized land are represented that, if managed differently, could benefit the family farm operator and society alike.

Lastly, even those who do not own a farm or patch of woods are at risk. Historically, the citizenry has had an interest in maintaining a healthy environment, practicing natural resource stewardship, enjoying outdoor recreation opportunities, and understanding the importance of managing forest, fish, and wildlife resources for future generations. However, demographic shifts are resulting in more Missouri citizens becoming increasingly disconnected with their environment and lacking the knowledge, or at least the appreciation, necessary to make conservation and natural resource management decisions.

For natural resource management to be sustainable it must be ecologically sound, economically viable and socially responsible.

Although targeted state and federal conservation programs have met with some success, these "conservation partners" have determined that a continuing need exists for the development of educational programs which enable private landowners, as well as the general citizenry, to make informed decisions regarding the wise stewardship and conservation of forest and field resources and the wildlife species dependent on these healthy habitats.

2. Scope of the Program

- In-State Extension
- In-State Research
- Multistate Research
- Multistate Extension
- Integrated Research and Extension
- Multistate Integrated Research and Extension

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

Adult learners need to feel competent, autonomous, and connected. Short courses (e.g. Missouri Woodland Steward and Missouri Master Wildlifer) and field days (e.g. MU Bradford Farm Quail Workshop) demonstrate by example that landowners can perform conservation practices themselves. This competency building then leads to a level of autonomy that empowers the participants to begin the long journey of improving the natural resources on their property. Lastly, these programs not only connect landowners with other landowners, but also with their local natural resource professionals. Through the collaborative learning process among landowners and the coached planning that a professional can provide to a group at one time in a single location leverages the state's limited resources when it comes to

landowner education.

Research on the five agroforestry practices (i.e. alley cropping, silvopasture, riparian buffers, wind/odor breaks, and forest farming), either individually or in combination, has emphasized meeting one or more of the criteria needed to sustain the natural resource base and, by association, the family farm. Agroforestry can be used to manipulate the agro-ecosystem to achieve optimal benefits through the use of intensive management practices such as tree planting, timber stand improvement, annual cultivation, fertilization, irrigation, weed control, liming, grazing animals or combinations of these and other practices. Additionally, on-farm agroforestry practices can be applied to create or improve wildlife habitat. Outcomes may represent combinations of economic, environmental, biological, or social benefits. Optimization implies that the various factors can be combined, through compromise, to best serve the interests of the user and society.

Engaging in volunteer education and service (e.g. Missouri Master Naturalist) will instill conservation values among the participants. Individuals who complete their initial training will become engaged in advanced training and follow through with outreach and service to their respective community. This process will provide life-long learning experiences and foster commitment from the volunteer.

2. Ultimate goal(s) of this Program

The ultimate goals of 'Enhancing the Sustainable Management of Missouri's Natural Resources' are:
 1. Increase the knowledge levels of family forest landowners, family farmers, and the general citizenry relating to natural resource ecology and management.

2. Increase the number of farm and forest management plans. This will expand the landowner-to-landowner as well as the landowner-to-resource manager network.

3. Increase the number of forest and wildlife management practices. This will increase the number of acres being sustainably managed.

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2012	3.0	0.0	0.0	0.0
2013	3.0	0.0	0.0	0.0
2014	3.0	0.0	0.0	0.0
2015	3.0	0.0	0.0	0.0
2016	3.0	0.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

- Develop curriculum-based natural resource ecology and management programs, including assessment and evaluation tools, marketing strategies and promotional materials.

- Conduct training workshops for local natural resource teams (MU Extension, Missouri Department of Conservation, and USDA NRCS) and potential local partners (e.g. Missouri Tree Farm, Conservation Federation of Missouri, Quail Unlimited, Wild Turkey Federation, Ducks Unlimited, Isaac Walton League, and Walnut Council).
 - Collaborate with these "conservation partners" in the delivery of the curriculum-based programs.
 - Participate in agricultural education events and field days at MU Agricultural Experiment Station Farms and Research Centers throughout the state.
 - Produce up-to-date, science-based information and deliver through guide sheets, newsletters, and websites.

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension

Direct Methods	Indirect Methods
<ul style="list-style-type: none"> • Education Class • Workshop • Group Discussion • One-on-One Intervention • Demonstrations • Other 1 (Webinars) 	<ul style="list-style-type: none"> • Public Service Announcement • Newsletters • Web sites other than eXtension

3. Description of targeted audience

There are two target audiences:

1. Landowners (both resident and absentee) interested in improving the natural resource base of their property.

2. Individuals who may or may not own land, but are interested in natural resource ecology and management issues.

V(G). Planned Program (Outputs)

NIFA no longer requires you to report target numbers for standard output measures in the Plan of Work. However, all institutions will report actual numbers for standard output measures in the Annual Report of Accomplishments and Results. The standard outputs for which you must continue to collect data are:

- Number of contacts
 - Direct Adult Contacts
 - Indirect Adult Contacts
 - Direct Youth Contacts
 - Indirect Youth Contact
 - Number of patents submitted
 - Number of peer reviewed publications
- Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(H). State Defined Outputs

1. Output Measure

- Provide training sessions for Extension specialists and/or state/federal natural resource professionals.
 - Coordinate delivery of natural resource ecology and management information via 'live' short courses, field days, and workshops to private landowners across Missouri.
 - Coordinate delivery of natural resource ecology and management information via distant-learning satellite seminars, webinars, and online short courses.
- Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(I). State Defined Outcome

O. No	Outcome Name
1	50% of Extension specialists and natural resource professionals participating in training sessions exhibit a knowledge gain in natural resource ecology and management.
2	50% of farmers and family forest landowners participating in either 'live' or distant-learning education events exhibit a knowledge gain in natural resource ecology and management.
3	30% of farmers and family forest landowners participating in either 'live' or distant-learning education events have a natural resource management plan in-place after six months.
4	75% of farmers and family forest landowners completing a natural resource management plan will have engaged in at least one natural resource management practice within six months of the plan's completion.
5	50% of farmers and family forest landowners implementing a natural resource management practice will see a positive response within 12 months of completion.

Outcome # 1

1. Outcome Target

50% of Extension specialists and natural resource professionals participating in training sessions exhibit a knowledge gain in natural resource ecology and management.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:30 2013:35 2014:40 2015:45 2016:45

3. Associated Knowledge Area(s)

- 123 - Management and Sustainability of Forest Resources
- 125 - Agroforestry
- 135 - Aquatic and Terrestrial Wildlife
- 136 - Conservation of Biological Diversity
- 605 - Natural Resource and Environmental Economics
- 610 - Domestic Policy Analysis

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 2

1. Outcome Target

50% of farmers and family forest landowners participating in either 'live' or distant-learning education events exhibit a knowledge gain in natural resource ecology and management.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:520 2013:565 2014:610 2015:655 2016:655

3. Associated Knowledge Area(s)

- 123 - Management and Sustainability of Forest Resources
- 125 - Agroforestry
- 135 - Aquatic and Terrestrial Wildlife
- 136 - Conservation of Biological Diversity
- 605 - Natural Resource and Environmental Economics
- 610 - Domestic Policy Analysis

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 3

1. Outcome Target

30% of farmers and family forest landowners participating in either 'live' or distant-learning education events have a natural resource management plan in-place after six months.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:312 2013:339 2014:366 2015:393 2016:393

3. Associated Knowledge Area(s)

- 123 - Management and Sustainability of Forest Resources
- 125 - Agroforestry
- 135 - Aquatic and Terrestrial Wildlife
- 136 - Conservation of Biological Diversity
- 605 - Natural Resource and Environmental Economics
- 610 - Domestic Policy Analysis

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 4

1. Outcome Target

75% of farmers and family forest landowners completing a natural resource management plan will have engaged in at least one natural resource management practice within six months of the plan's completion.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:234 2013:255 2014:275 2015:295 2016:295

3. Associated Knowledge Area(s)

- 123 - Management and Sustainability of Forest Resources
- 125 - Agroforestry
- 135 - Aquatic and Terrestrial Wildlife
- 136 - Conservation of Biological Diversity
- 605 - Natural Resource and Environmental Economics
- 610 - Domestic Policy Analysis

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 5

1. Outcome Target

50% of farmers and family forest landowners implementing a natural resource management practice will see a positive response within 12 months of completion.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:117

2013:125

2014:138

2015:148

2016:148

3. Associated Knowledge Area(s)

- 123 - Management and Sustainability of Forest Resources
- 125 - Agroforestry
- 135 - Aquatic and Terrestrial Wildlife
- 136 - Conservation of Biological Diversity
- 605 - Natural Resource and Environmental Economics
- 610 - Domestic Policy Analysis

4. Associated Institute Type(s)

- 1862 Extension

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Other (Land Fragmentation)

Description

Natural disasters (e.g. drought, flood, or early/late freezes) could result in tree planting failures or unsuccessful conversion of abandoned fields to warm season grasses. This could possibly discourage participants from sticking with their management plans, hence leading to no improvement in their natural resources.

However, more important than natural disasters are the man-made disasters of a poor economy or reduced Federal and/or state appropriations. Natural resource improvement practices are often viewed as luxury activities that disappear in a weak economy. The other man-made disaster of

authorizing, yet under-funding (and in some cases zero funding), various incentive programs has the potential of leaving private landowners confused and distrustful of any government assistance program. This is why it is imperative to impress upon farmers and family forest landowners the need to do something on their own and not depend upon others for help.

Fragmentation of the surrounding landscape could adversely affect the quality of wildlife habitat for some animal species. In addition, the increased fragmentation leads to more individuals in a given area who might be at odds with the agricultural and forestry practices.

V(K). Planned Program - Planned Evaluation Studies

Description of Planned Evaluation Studies

The evaluation studies planned are straightforward in that they will measure immediate knowledge gain through pre- and post-testing. The time series will seek voluntary feedback from participants through a mail-in survey as to what (if anything) natural resource management practices they have implemented on their property. Case studies will also be developed to highlight not only successes, but key learnings from failures.

V(A). Planned Program (Summary)

Program # 5

1. Name of the Planned Program

Profit Focused Agriculture

2. Brief summary about Planned Program

Profit Focused Agriculture targets the following audiences: farmers/ranchers (beginning, primary income, secondary income and transitioning), landowners and agribusinesses/agencies. Landowners includes heirs one or more generations removed from the farm, persons purchasing land for investment or recreation and resident retired farmers. Beginning farmers are individuals starting a farm operation for primary or secondary income. Primary-income farmers are individuals whose farm income is the primary source of business and household income, including limited resource and ethnically diverse persons. Secondary-income farmers are persons whose farm income is important to the household, but it is not the main source of family revenues. Transitioning farmers are existing farmers (primary or secondary income) making major business/life changes, including exiting the business or reducing involvement in the operation. Agribusinesses/agencies are entities (commercial and governmental) whose functions affect farm income. Profit Focused Agriculture is a team effort of state and regional University of Missouri Extension faculty partnering with private businesses, agencies and other educators focused on enhancing the economic viability and sustainability of Missouri agriculture. This will be accomplished through high-quality, research-based, frontier educational programs designed to increase Missouri agricultural producers' knowledge, skills and abilities in making risk management and strategic planning decisions leading to increased profitability and improved quality of life.

3. Program existence : Mature (More than five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
601	Economics of Agricultural Production and Farm Management	40%			
602	Business Management, Finance, and Taxation	10%			
603	Market Economics	10%			
604	Marketing and Distribution Practices	10%			
605	Natural Resource and Environmental Economics	15%			
606	International Trade and Development	2%			
607	Consumer Economics	2%			
610	Domestic Policy Analysis	10%			
611	Foreign Policy and Programs	1%			
	Total	100%			

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

Production agriculture is an important contributor to the economic viability of Missouri. During 2004, the state's 106,000 farms produced and sold crops, livestock, and other agricultural commodities worth \$5.82 billion. Nationally, Missouri ranks second in the number of farms but 15th in total cash receipts. Diverse topography, a moderate climate, and the availability of water for irrigation contribute to Missouri's ability to produce a variety of agricultural products. However, these same features are attractive for nonagricultural uses, increasing the demand for land and reducing slightly the amount of affordable land available for farming each year.

2. Scope of the Program

- In-State Extension
- In-State Research
- Multistate Extension
- Integrated Research and Extension

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

This program design is based on a long history of successful Extension agricultural programming in Missouri while incorporating developing technology to more economically and effectively serve the target audiences.

2. Ultimate goal(s) of this Program

The Profit Focused Agriculture program's objective is to improve the profitability and viability of Missouri's farms and agricultural industry. Program goals include improving farm financial management through greater use of strategies to reduce risk; expanding opportunity and wealth through entrepreneurship that links production opportunities with market demand; and protecting business growth, improving environmental quality and enhancing community well-being through education about legal and regulatory issues.

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2012	17.0	0.0	0.0	0.0
2013	17.0	0.0	0.0	0.0
2014	17.0	0.0	0.0	0.0
2015	17.0	0.0	0.0	0.0
2016	17.0	0.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

Conduct multisession workshops using curricula or other appropriate material. Participate in or give presentations at meetings, workshops, conferences, seminars. Develop or update curricula or educational materials. Provide individual assistance as follow-up to group activities. Consult with individuals upon request. Develop and distribute information on current issues related to farm/agricultural profitability through newsletters, Internet postings, personal contacts, and media releases. Keep updated and assist farmers with computer and Internet applications. Conduct surveys or develop case studies relevant to improving farm/agricultural profitability. Evaluate the effectiveness of workshops, training, and other activities. Cooperate with agencies and organizations on activities related to the program objectives.

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension

Direct Methods	Indirect Methods
<ul style="list-style-type: none"> ● Education Class ● Workshop ● Group Discussion ● One-on-One Intervention ● Demonstrations 	<ul style="list-style-type: none"> ● Newsletters ● TV Media Programs ● Web sites other than eXtension ● Other 1 (Newspaper Articles) ● Other 2 (Trade Magazines)

3. Description of targeted audience

Farmers/ranchers (beginning, primary income, secondary income and transitioning) Landowners (absentee, women, seniors) and agribusinesses/agencies, agribusinesses/agencies (commercial, farmer cooperatives), and agencies/farm organizations (governmental, commodity groups).

V(G). Planned Program (Outputs)

NIFA no longer requires you to report target numbers for standard output measures in the Plan of Work. However, all institutions will report actual numbers for standard output measures in the Annual Report of Accomplishments and Results. The standard outputs for which you must continue to collect data are:

- Number of contacts
 - Direct Adult Contacts
 - Indirect Adult Contacts
 - Direct Youth Contacts
 - Indirect Youth Contact
 - Number of patents submitted
 - Number of peer reviewed publications
- Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(H). State Defined Outputs

1. Output Measure

- Annual training for regional specialists on curriculum-based MO programs and new programs related to Ag Business Management series teaching programs conducted by regional specialists will be monitored and participants invited to complete evaluations.
- Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(I). State Defined Outcome

O. No	Outcome Name
1	Fifty percent of the participants in Annie's Project will develop a strategic plan. A follow-up survey will be conducted after training is complete.
2	Fifty percent of the participants in Golden Age Framing will develop an estate plan. A follow-up survey will be conducted after training is complete.
3	New value-added collective agricultural business organizations will be established annually. A follow-up survey will be conducted after training is complete.

Outcome # 1

1. Outcome Target

Fifty percent of the participants in Annie's Project will develop a strategic plan. A follow-up survey will be conducted after training is complete.

2. Outcome Type : Change in Action Outcome Measure

2012:0 2013:0 2014:0 2015:0 2016:0

3. Associated Knowledge Area(s)

- 601 - Economics of Agricultural Production and Farm Management
- 602 - Business Management, Finance, and Taxation
- 603 - Market Economics
- 604 - Marketing and Distribution Practices
- 605 - Natural Resource and Environmental Economics
- 606 - International Trade and Development
- 607 - Consumer Economics
- 610 - Domestic Policy Analysis
- 611 - Foreign Policy and Programs

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 2

1. Outcome Target

Fifty percent of the participants in Golden Age Framing will develop an estate plan. A follow-up survey will be conducted after training is complete.

2. Outcome Type : Change in Action Outcome Measure

2012:0 2013:0 2014:0 2015:0 2016:0

3. Associated Knowledge Area(s)

- 601 - Economics of Agricultural Production and Farm Management
- 602 - Business Management, Finance, and Taxation
- 603 - Market Economics
- 604 - Marketing and Distribution Practices
- 605 - Natural Resource and Environmental Economics
- 606 - International Trade and Development
- 607 - Consumer Economics

- 610 - Domestic Policy Analysis
- 611 - Foreign Policy and Programs

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 3

1. Outcome Target

New value-added collective agricultural business organizations will be established annually. A follow-up survey will be conducted after training is complete.

2. Outcome Type : Change in Action Outcome Measure

2012:5	2013:6	2014:6	2015:6	2016:6
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3. Associated Knowledge Area(s)

- 601 - Economics of Agricultural Production and Farm Management
- 602 - Business Management, Finance, and Taxation
- 603 - Market Economics
- 604 - Marketing and Distribution Practices
- 605 - Natural Resource and Environmental Economics
- 606 - International Trade and Development
- 607 - Consumer Economics
- 610 - Domestic Policy Analysis
- 611 - Foreign Policy and Programs

4. Associated Institute Type(s)

- 1862 Extension

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges

- Populations changes (immigration, new cultural groupings, etc.)

Description

Extension programming is responsive to the needs of the citizens. As their needs change, Extension programming also changes.

V(K). Planned Program - Planned Evaluation Studies

Description of Planned Evaluation Studies

Follow-up surveys of program participants will be conducted.

V(A). Planned Program (Summary)

Program # 6

1. Name of the Planned Program

Water Resource Protection and Management

2. Brief summary about Planned Program

The University of Missouri Extension Water Resources Protection and Management Program provides local communities, Missouri Department of Natural Resources and the U.S. Environmental Protection Agency with assistance to address water quality issues resulting from watershed land use. The program provides local communities with the science/research base information to make informed decisions on protecting water resources in their community and to evaluate the economic, environmental and social interactions of their watershed planning decisions. The program works with local communities to develop and implement programs that are designed to protect water resources within a local watershed. The program focuses on developing and expanding collaboration and partnerships with agencies, individuals, elected officials and organizations that have responsibility for protecting water resources. The water resources protection and management program takes a holistic approach to identifying watershed concerns, developing a plan of action and educational programs to assist with answering local concerns.

3. Program existence : New (One year or less)

4. Program duration : Short-Term (One year or less)

5. Expending formula funds or state-matching funds :Yes

6. Expending other than formula funds or state-matching funds : No

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
102	Soil, Plant, Water, Nutrient Relationships	10%			
111	Conservation and Efficient Use of Water	5%			
112	Watershed Protection and Management	40%			
133	Pollution Prevention and Mitigation	15%			
608	Community Resource Planning and Development	15%			
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	15%			
	Total	100%			

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

In a statewide plan of work review process in 2005, Missouri county Extension councils, elected officials, and citizens were asked to identify issues and trends most likely to affect their quality of life during the upcoming four -year plan-of-work cycle. Water quality and quantity were identified as issues needing to be considered in all eight University regions and in three of the five Extension programming efforts.

Missouri Department of Natural Resources and the U.S. Environmental Protection Agency have identified 230 Missouri water bodies to be placed on the 303(d) list of impaired waters. Each of these lakes, reservoirs or streams identified will require a plan for total maximum daily load (TMDL) to reduce the amounts of identified pollutants. The University of Missouri Extension Water Quality program continues to provide watershed management and planning assistance for watersheds throughout Missouri. Based on the individual needs of the local community educational programs and assistance will be offered to help the communities meet water resource goals. Collaborations and partnerships with other University of Missouri programs (Community Development, Agronomy, Livestock, Public Policy Institute, etc.) and non-university partners (USDA agencies, Missouri Department of Natural Resources, Missouri Department of Agriculture, Missouri Department of Health, etc.) will be expanded and improved to provide watershed communities the most reliable information available as they work on protection water resources.

2. Scope of the Program

- In-State Extension

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

Communities are starting to recognize concerns associated with water quality and quantity issues. As local communities start considering how water resources are affected they will need assistance with developing action plans and obtaining science based information. Research has shown that when local people become involved in the decision making process that affects their community they are more willing to adopt and follow strategies to obtain desired outcomes. Federal and state agencies have requested assistance to communities having water quality concerns. All indications are that organizing watershed planning and management groups will and providing educational programs to address issues will continue to increase in the future.

2. Ultimate goal(s) of this Program

Provide water resource education and planning assistance to watershed groups throughout the state. Ten communities will receive educational programming on water resource management. This information will assist local watershed residents with decisions that affect the economic and environmental viability of area. These ten local watershed committees will understand an approach to watershed management that includes economic, environmental and social concerns and will be able to integrate this approach into their decision-making. Existing collaborative partnerships (private and public) will be strengthened, and new partnerships developed to provide local watershed communities with the most current information to assist them in conducting water resource planning and management activities.

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890

Year	Extension		Research	
	1862	1890	1862	1890
2012	10.0	0.0	0.0	0.0
2013	10.0	0.0	0.0	0.0
2014	10.0	0.0	0.0	0.0
2015	10.0	0.0	0.0	0.0
2016	10.0	0.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

Campus-based and region-based faculty members will conduct meetings, workshops and short courses in partnership with commodity groups, general public and private industry. Field days will be offered to show how to demonstrate methods to protect watersheds and improve water quality. Mass media (printed, radio, television coverage) will be used to increase awareness of programs and classes. Watershed planning committees will be established and trained to develop and implement watershed management plans.

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension

Direct Methods	Indirect Methods
<ul style="list-style-type: none"> ● Education Class ● Workshop ● Group Discussion ● One-on-One Intervention ● Demonstrations 	<ul style="list-style-type: none"> ● Public Service Announcement ● Newsletters ● Web sites other than eXtension ● Other 1 (Distance Education)

3. Description of targeted audience

Citizens of Missouri that are living in watersheds that are on the state 303 (d) list of impaired waters are a primary audience. A secondary audience will be the community citizens that are directly affected by water resource concerns because of potential contaminants.

V(G). Planned Program (Outputs)

NIFA no longer requires you to report target numbers for standard output measures in the Plan of Work. However, all institutions will report actual numbers for standard output measures in the Annual Report of Accomplishments and Results. The standard outputs for which you must continue to collect data are:

- Number of contacts
 - Direct Adult Contacts
 - Indirect Adult Contacts
 - Direct Youth Contacts
 - Indirect Youth Contact
 - Number of patents submitted
 - Number of peer reviewed publications
- Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(H). State Defined Outputs

1. Output Measure

- Two educational seminars/conferences for water resources protection and management will be offered each year.
 - Four Water resource classes will be offered each year for professional education credits.
 - Each year five watershed groups will receive assistance in developing watershed plans to respond to water resource concerns.
- Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(I). State Defined Outcome

O. No	Outcome Name
1	Fifty percent of water resource seminar participants will indicate increased knowledge after attending educational seminars and management classes on water resource management and protection.
2	Seventy percent of those attending water resource protection and management courses for professional education credits will change behavior based on knowledge gained.
3	Five watershed groups will receive assistance and change their behaviors towards water resource protection and management.

Outcome # 1

1. Outcome Target

Fifty percent of water resource seminar participants will indicate increased knowledge after attending educational seminars and management classes on water resource management and protection.

2. Outcome Type : Change in Action Outcome Measure

2012:250 2013:250 2014:250 2015:250 2016:250

3. Associated Knowledge Area(s)

- 111 - Conservation and Efficient Use of Water
- 112 - Watershed Protection and Management
- 133 - Pollution Prevention and Mitigation
- 608 - Community Resource Planning and Development
- 803 - Sociological and Technological Change Affecting Individuals, Families, and Communities

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 2

1. Outcome Target

Seventy percent of those attending water resource protection and management courses for professional education credits will change behavior based on knowledge gained.

2. Outcome Type : Change in Action Outcome Measure

2012:350 2013:350 2014:350 2015:350 2016:350

3. Associated Knowledge Area(s)

- 102 - Soil, Plant, Water, Nutrient Relationships
- 111 - Conservation and Efficient Use of Water
- 112 - Watershed Protection and Management
- 133 - Pollution Prevention and Mitigation
- 608 - Community Resource Planning and Development
- 803 - Sociological and Technological Change Affecting Individuals, Families, and Communities

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 3

1. Outcome Target

Five watershed groups will receive assistance and change their behaviors towards water resource protection and management.

2. Outcome Type : Change in Action Outcome Measure

2012:5	2013:5	2014:5	2015:5	2016:5
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3. Associated Knowledge Area(s)

- 111 - Conservation and Efficient Use of Water
- 112 - Watershed Protection and Management
- 133 - Pollution Prevention and Mitigation
- 608 - Community Resource Planning and Development
- 803 - Sociological and Technological Change Affecting Individuals, Families, and Communities

4. Associated Institute Type(s)

- 1862 Extension

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges

Description

Many factors can affect how local citizens set priorities for watershed and environmental issues. Local economic concerns, state and federal appropriations, regulations and natural disasters that affect quality of life can play a major role in the amount of effort local watershed citizens will expend on developing a plan of action and finding the funds to implement a plan. When concerns about water quality and quantity are directly related to an immediate health concern, more emphasis will be placed on eliminating the problem and improving the condition. If the watershed concerns are driven by specific environmental issues, such as a Total maximum daily load (TMDL) that can affect the local economy, then more direct emphasis is placed on compliance with the environmental controls. If the watershed concerns are not considered pressing at this time, community support and interest can easily shift to other issues.

V(K). Planned Program - Planned Evaluation Studies

Description of Planned Evaluation Studies

Four forms of evaluation will be used: 1.) Number of watershed groups that are working on developing watershed management plans. 2.) Pre and post surveys to citizens attending water resources educational programs. 3.) Follow up surveys to participants in seminars, classes and watershed meetings. 4.) Case studies of local watershed communities as they participate in and implementing practices associated with improving water resources.

V(A). Planned Program (Summary)

Program # 7

1. Name of the Planned Program

Managing Forages for Profitable Animal Production - Global Food Security and Hunger

2. Brief summary about Planned Program

The Managing Forage's for Profitable Animal Production program covers the largest agricultural industry in Missouri. This program endeavors to teach Missouri's 60,000 forage producers to better manage their forage resources for improved economic return while protecting the environment. The program will reach the target audience primarily through the following curricula: management-intensive grazing; pasture-based dairying; year-round grazing management, including winter feeding systems and making use of summer pasture; and tall fescue toxicosis. The expected outcomes from this program include increased economic development and social viability of rural Missouri. The direct economic impact of this program can be expected to exceed \$200,000,000 on an annual basis.

3. Program existence : Mature (More than five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
205	Plant Management Systems	40%			
307	Animal Management Systems	40%			
402	Engineering Systems and Equipment	20%			
	Total	100%			

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

Missouri's forage-livestock industry is the state's largest agricultural endeavor. Forage producers use 18 million acres of private lands for grazing, hay production and conservation, and forages are the major land cover for protecting the environment. Forage-livestock enterprises contribute more than \$5 billion annually to Missouri's economy and provide direct income for more than 150,000 citizens.

Nationally, Missouri has the third largest cow-calf herd (more than 4 million cows and calves), the second largest number of beef producers and the seventh largest number of dairy farms and is the second largest producer of grass hay. Over 80% of all feed units for these livestock come from forages. Additionally cattle feeding states including Kansas, Iowa, Nebraska and Oklahoma rely on the genetic base of beef calves from Missouri. Unfortunately, cow-calf producers in Missouri are among the least cost

efficient, which makes them unprofitable when calf prices are low. Nearly half of their potential income is spent for livestock feed during January, February and March. Hay represents about 90% of the cost for winter feed. To combat this issue, an integrated curricula will be taught emphasizing year-round grazing management, including winter feeding systems and making use of summer pasture

From the dairy perspective, almost 30% of Missouri's family dairies have gone bankrupt because of high feed costs, expensive capital investments and low profit margins since 1991. According to economic analyses, dairies could adopt grazing to lower feed costs, minimize capital investments, increase profit margins and protect the environment.

A team of agronomists, dairy scientists, veterinarians, economists and rural sociologists will show dairy producers how to use grazing to improve the profitability of their farms.

Finally, Missouri's major pasture is tall fescue, most of which is infected with a toxic fungus. The fungus causes fescue toxicosis, the most severe livestock disorder in Missouri and the US; fescue toxicosis costs US livestock producers \$900 million annually. MU has the first curriculum-based educational program to address fescue toxicosis through hands-on workshops, new testing technologies and integrated management solutions.

2. Scope of the Program

- In-State Extension
- In-State Research
- Multistate Extension
- Integrated Research and Extension

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

The nature of the industry is a highly competitive one. Competition from other domestic and foreign markets plays a significant role in determining product pricing. For this enormous industry to remain competitive, University of Missouri 's Extension programs should focus largely on improved management practices that help Missouri producers reduce their cost of production while preventing environmental damage. Only in this way can the industry survive in the long term.

2. Ultimate goal(s) of this Program

The goal of the Managing Forage's for Profitable Animal Production program is to teach Missouri's producers to better manage their forage resources for improved economic return and to protect the environment. This will ultimately enhance the economic and social viability of rural Missouri.

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2012	8.0	0.0	0.0	0.0
2013	8.0	0.0	0.0	0.0

Year	Extension		Research	
	1862	1890	1862	1890
2014	8.0	0.0	0.0	0.0
2015	8.0	0.0	0.0	0.0
2016	8.0	0.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

Extension specialists will use multiple delivery methods to reach the target audiences: on-line curriculum, regional grazing schools; core group meetings and "pasture walks"; winter feeding systems and summer pasture program using demos, clinics, and tours, fescue toxicosis and management workshops; conference; Ag. Lenders workshops, demonstration plots, grazing symposium field days at outlying research centers; websites, electronic guides; CDs with prepared presentations; in-service training (ISEs); news releases for the general public; and popular press articles.

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> ● Education Class ● Workshop ● Group Discussion ● One-on-One Intervention ● Demonstrations ● Other 1 (Conferences) ● Other 2 (Tours) 	<ul style="list-style-type: none"> ● Newsletters ● Web sites other than eXtension ● Other 1 (Press Releases)

3. Description of targeted audience

The primary target audience includes Missouri forage and livestock producers. These are mainly producers of beef and dairy cattle, although the program does address forages for other livestock, such as sheep, goats and horses, and non livestock forage producers, such as hay producers and wildlife conservationists. The program also targets industry and government, as it presents current science, technology and training to agricultural business and policymakers.

V(G). Planned Program (Outputs)

NIFA no longer requires you to report target numbers for standard output measures in the Plan of Work. However, all institutions will report actual numbers for standard output measures in the Annual Report of Accomplishments and Results. The standard outputs for which you must continue to collect data are:

- Number of contacts
 - Direct Adult Contacts
 - Indirect Adult Contacts
 - Direct Youth Contacts
 - Indirect Youth Contact
 - Number of patents submitted
 - Number of peer reviewed publications
- Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(H). State Defined Outputs

1. Output Measure

- Provide in-service training session (s) for regional Extension specialists on an annual basis.
 - Develop or revise guide sheets on an annual basis for regional Extension specialists to use in producer meetings.
 - Revise Missouri publication M168, Missouri Dairy Grazing Manual.
- Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(I). State Defined Outcome

O. No	Outcome Name
1	Nine hundred (900) producers will annually attend a management-intensive grazing (MiG) school.
2	Five thousand (5,000) Missouri producers will increase their awareness of stockpiling and summer pasture management for beef cattle.
3	Two hundred (200) Missouri farmers will increase their knowledge of fescue toxicosis.
4	Increase the number of dairy farms that adopt the Missouri Pasture-based model resulting in increased profitability.
5	Quality of life as expressed by family farm operators.

Outcome # 1

1. Outcome Target

Nine hundred (900) producers will annually attend a management-intensive grazing (MiG) school.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:0	2013:0	2014:0	2015:0	2016:0
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3. Associated Knowledge Area(s)

- 205 - Plant Management Systems
- 307 - Animal Management Systems

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 2

1. Outcome Target

Five thousand (5,000) Missouri producers will increase their awareness of stockpiling and summer pasture management for beef cattle.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:0	2013:0	2014:0	2015:0	2016:0
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3. Associated Knowledge Area(s)

- 205 - Plant Management Systems
- 307 - Animal Management Systems
- 402 - Engineering Systems and Equipment

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 3

1. Outcome Target

Two hundred (200) Missouri farmers will increase their knowledge of fescue toxicosis.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:0 2013:0 2014:0 2015:0 2016:0

3. Associated Knowledge Area(s)

- 205 - Plant Management Systems
- 307 - Animal Management Systems

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 4

1. Outcome Target

Increase the number of dairy farms that adopt the Missouri Pasture-based model resulting in increased profitability.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:0 2013:0 2014:0 2015:0 2016:0

3. Associated Knowledge Area(s)

- 205 - Plant Management Systems
- 307 - Animal Management Systems

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 5

1. Outcome Target

Quality of life as expressed by family farm operators.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:0 2013:0 2014:0 2015:0 2016:0

3. Associated Knowledge Area(s)

- 307 - Animal Management Systems

4. Associated Institute Type(s)

- 1862 Extension

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Public Policy changes
- Government Regulations

Description

External factors that play a significant role include BSE, domestic and foreign competition, weather events (drought, cold, heat, etc.), governmental regulations, and other technological developments.

V(K). Planned Program - Planned Evaluation Studies

Description of Planned Evaluation Studies

The pasture-based dairy program is planning a structured survey that will measure forage management, cow management, economic milestones and quality of life.

V(A). Planned Program (Summary)

Program # 8

1. Name of the Planned Program

Creating Simple Environments for Positive Youth Development

2. Brief summary about Planned Program

University of Missouri Extension 4-H youth development faculty and staff work with volunteers and professionals to plan, implement and evaluate content-based programs and experiences that have short-term contact with young people that meet strategic goals. For example, these strategic goals may include outreach to new and under-served audiences, and focus on priority topics and collaboration. Ideally, the goal is to move youth into complex, long-term, sustained programs. *Examples: school enrichment, special interest groups.*

3. Program existence : Mature (More than five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
806	Youth Development	100%			
	Total	100%			

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

A successful county MU Extension 4-H youth development program provides Integrated, Experiential Learning Opportunities in Priority Content Areas. Learning opportunities are planned to address critical needs and issues identified by citizens. Currently, nine program priority areas are the focus of MU Extension 4-H youth development in the strategic plan:

- Choosing healthy lifestyles
- Creating economic preparedness and workforce preparation
- Developing youth leadership and citizenship to enhance community viability
- Applying science and technology and informational technology youth education
- Developing volunteers

Incorporated in all learning opportunities are four principles that are based on current research on positive youth development. In particular, they are built on the eight critical elements identified and measured in

the National 4-H Impact Assessment. To varying degrees, these principles or critical elements are part of every program, activity or learning opportunity.

2. Scope of the Program

- In-State Extension
- Multistate Extension

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

When environments include sustained opportunities for young people to gain a sense of belonging, independence, mastery and generosity, youth can: master skills to make positive life choices; effectively contribute to decision-making and act responsibly; and positively influence their communities and beyond. On-going caring relationships are essential to positive youth development.

2. Ultimate goal(s) of this Program

Increased knowledge, skills and attitudes of youth and adult participants.

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2012	6.0	0.0	0.0	0.0
2013	6.0	0.0	0.0	0.0
2014	6.0	0.0	0.0	0.0
2015	6.0	0.0	0.0	0.0
2016	6.0	0.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

School enrichment groups meet during school time and use curricula supplied through 4-H. The groups are coordinated by partnerships of 4-H/University of Missouri Extension and school personnel. Most of the groups meet for limited number of classroom hours rather than yearlong. Age guideline: Young people in grades K-12 or equivalent.

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	Indirect Methods

- Workshop
- Demonstrations
- Other 1 (Exhibition, Judging, Field Trips)
- Other 2 (Camps, Educational Events)

- Newsletters
- Web sites other than eXtension

3. Description of targeted audience

Adults (youth staff, local leaders, parents, volunteers, teachers, organizational leaders) Youth aged 5 - 19.

V(G). Planned Program (Outputs)

NIFA no longer requires you to report target numbers for standard output measures in the Plan of Work. However, all institutions will report actual numbers for standard output measures in the Annual Report of Accomplishments and Results. The standard outputs for which you must continue to collect data are:

- Number of contacts
 - Direct Adult Contacts
 - Indirect Adult Contacts
 - Direct Youth Contacts
 - Indirect Youth Contact
- Number of patents submitted
- Number of peer reviewed publications

Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(H). State Defined Outputs

1. Output Measure

- Number of Classroom Teachers trained to use 4-H School Enrichment Curricula.
- Number of Youth Enrollment in 4-H School Enrichment.
- Number of youth enrolled in embryology.
- Number of youth enrolled in special interest/short term programs.

Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(I). State Defined Outcome

O. No	Outcome Name
1	Youth will increase knowledge and skills gained as reported by their classroom teacher or adult adviser.

Outcome # 1

1. Outcome Target

Youth will increase knowledge and skills gained as reported by their classroom teacher or adult adviser.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:10500 2013:12000 2014:12500 2015:13000 2016:13500

3. Associated Knowledge Area(s)

- 806 - Youth Development

4. Associated Institute Type(s)

- 1862 Extension

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Description

V(K). Planned Program - Planned Evaluation Studies

Description of Planned Evaluation Studies

The 4-H Center for Youth Development and the Department of Agriculture Education are cooperating in a study to determine content and life skills gained through project exhibition.

V(A). Planned Program (Summary)

Program # 9

1. Name of the Planned Program

Creating Collaborative Environments for Positive Youth Development

2. Brief summary about Planned Program

3. Program existence : Mature (More than five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
806	Youth Development	100%			
	Total	100%			

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

University of Missouri Extension 4-H youth development faculty and staff collaborate with partners to address youth and family issues in the community. Rather than providing programs or services directly to an individual young person, the focus is upon influencing systems - people, programs, policies and services that impact the lives of young people and their families. *Examples: Community 2000, Caring Communities.*

2. Scope of the Program

- In-State Extension
- Multistate Extension

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

When environments include sustained opportunities for young people to gain a sense of belonging, independence, mastery and generosity, youth can: master skills to make positive life choices; effectively contribute to decision making and act responsibly; and positively influence their communities and beyond. On-going caring relationships are essential to positive youth development.

2. Ultimate goal(s) of this Program

Influencing systems - people, programs, policies and services, which impact the lives of young people and their families.

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2012	11.0	0.0	0.0	0.0
2013	11.0	0.0	0.0	0.0
2014	11.0	0.0	0.0	0.0
2015	11.0	0.0	0.0	0.0
2016	11.0	0.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

Developing and delivering youth development curricula to volunteers, staff, community members, parents, etc. to increase their understanding of developmental needs of youth, effective learning strategies and building effective youth/adult partnerships.

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension

Direct Methods	Indirect Methods
<ul style="list-style-type: none"> ● Workshop ● Other 1 (Credit Courses) 	<ul style="list-style-type: none"> ● Newsletters ● Web sites other than eXtension

3. Description of targeted audience

Adults (youth staff, local leaders, parents, volunteers, teachers, organizational leaders, non-4-H MU Extension faculty).

V(G). Planned Program (Outputs)

NIFA no longer requires you to report target numbers for standard output measures in the Plan of Work. However, all institutions will report actual numbers for standard output measures in the Annual Report of Accomplishments and Results. The standard outputs for which you must continue to collect data are:

- Number of contacts
 - Direct Adult Contacts
 - Indirect Adult Contacts
 - Direct Youth Contacts
 - Indirect Youth Contact
 - Number of patents submitted
 - Number of peer reviewed publications
- Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(H). State Defined Outputs

1. Output Measure

- Number of adults trained by 4-H field and state faculty with youth development academy curricula.
- Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(I). State Defined Outcome

O. No	Outcome Name
1	80% of adults will report increase in knowledge, skills and attitudes to work with youth as a result of attending workshops or conferences where 4-H field or state faculty deliver youth development academy curricula.

Outcome # 1

1. Outcome Target

80% of adults will report increase in knowledge, skills and attitudes to work with youth as a result of attending workshops or conferences where 4-H field or state faculty deliver youth development academy curricula.

2. Outcome Type : Change in Action Outcome Measure

2012:80 2013:80 2014:80 2015:80 2016:80

3. Associated Knowledge Area(s)

- 806 - Youth Development

4. Associated Institute Type(s)

- 1862 Extension

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Description

{NO DATA ENTERED}

V(K). Planned Program - Planned Evaluation Studies

Description of Planned Evaluation Studies

{NO DATA ENTERED}

V(A). Planned Program (Summary)

Program # 10

1. Name of the Planned Program

Creating Complex Environments for Positive Youth Development

2. Brief summary about Planned Program

University of Missouri Extension 4-H youth development faculty and staff work with volunteers and professionals to plan, implement and evaluate progressive series of programs and experiences that connect young people with content of interest, caring adults and opportunities for mastery over an extended periods of time. *Examples: 4-H clubs, after-school programs.*

3. Program existence : Mature (More then five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
806	Youth Development	100%			
	Total	100%			

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

A successful county MU Extension 4-H youth development program provides Integrated, Experiential Learning Opportunities in Priority Content Areas. Learning opportunities are planned to address critical needs and issues identified by citizens. Currently, nine program priority areas are the focus of MU Extension 4-H youth development in the strategic plan: Choosing healthy lifestyles

- Creating economic preparedness and workforce preparation
- Developing youth leadership and citizenship to enhance community viability
- Applying science and technology and informational technology youth education
- Developing volunteers

Incorporated in all learning opportunities are four principles that are based on current research on positive youth development. In particular, they are built on the eight critical elements identified and measured in the National 4-H Impact Assessment. To varying degrees, these principles or critical elements are part of every program, activity or learning opportunity.

Allowing youth to master their interests by demonstrating skills and knowledge, speaking in public, judging items or animals against industry standards and exhibiting products of their project work.

Engage the power of youth suggests mutual respect and shared leadership among youths and adults. Youths are viewed as partners and stakeholders in planning, implementing and evaluating all aspects of a successful county MU Extension 4-H youth development programs.

Connect caring adults and youths means building systems in the county MU Extension 4-H youth development program that promote long-term, meaningful and positive relationships between youths and adults.

2. Scope of the Program

- In-State Extension
- Multistate Extension

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

When environments include sustained opportunities for young people to gain a sense of belonging, independence, mastery and generosity, youth can: master skills to make positive life choices; effectively contribute to decision-making and act responsibly; and positively influence their communities and beyond. On-going caring relationships are essential to positive youth development.

2. Ultimate goal(s) of this Program

Adult volunteers and faculty create environments that connect youth with caring adults and opportunities for mastery and meaningful leadership experiences over an extended period of time.

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2012	25.0	0.0	0.0	0.0
2013	25.0	0.0	0.0	0.0
2014	25.0	0.0	0.0	0.0
2015	25.0	0.0	0.0	0.0
2016	25.0	0.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

4-H Community Clubs.

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension

Direct Methods	Indirect Methods
<ul style="list-style-type: none"> ● Workshop ● Other 1 (Exhibition, Judging, Field Trips) ● Other 2 (Camps, Educational Events) 	<ul style="list-style-type: none"> ● Newsletters ● Web sites other than eXtension

3. Description of targeted audience

Adults (youth staff, local leaders, parents, volunteers, teachers, organizational leaders), youth aged 5 - 19.

V(G). Planned Program (Outputs)

NIFA no longer requires you to report target numbers for standard output measures in the Plan of Work. However, all institutions will report actual numbers for standard output measures in the Annual Report of Accomplishments and Results. The standard outputs for which you must continue to collect data are:

- Number of contacts
 - Direct Adult Contacts
 - Indirect Adult Contacts
 - Direct Youth Contacts
 - Indirect Youth Contact
- Number of patents submitted
- Number of peer reviewed publications

Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(H). State Defined Outputs

1. Output Measure

- Number of youth enrolled in 4-H community clubs.
- Number of 4-H volunteers.

Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(I). State Defined Outcome

O. No	Outcome Name
1	A sample of Missouri young people participating in the 4-H Study of positive youth development or those responding to the Missouri 4-H Life Skills survey will report they are competent, capable, caring and contributing.

Outcome # 1

1. Outcome Target

A sample of Missouri young people participating in the 4-H Study of positive youth development or those responding to the Missouri 4-H Life Skills survey will report they are competent, capable, caring and contributing.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:3000 2013:3500 2014:4000 2015:4500 2016:4500

3. Associated Knowledge Area(s)

- 806 - Youth Development

4. Associated Institute Type(s)

- 1862 Extension

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Description

V(K). Planned Program - Planned Evaluation Studies

Description of Planned Evaluation Studies

4-H field and campus faculty will recruit youth to participate in the national 4-H Study of positive youth development and utilize the Missouri 4-H Life Skills Evaluation System with 4-H members.

V(A). Planned Program (Summary)

Program # 11

1. Name of the Planned Program

Volunteer Development

2. Brief summary about Planned Program

Through workshops, volunteer forums, leadership roles and web-based instruction, state and county extension faculty will help adult and youth volunteer leaders gain knowledge and skills to communicate, manage programs, design and deliver education events, develop interpersonal skills and create environments that promote positive youth development.

3. Program existence : Mature (More than five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
806	Youth Development	100%			
	Total	100%			

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

Volunteers: both adult and youth are the backbone of the Missouri 4-H Youth Development Programs. 4-H volunteers teach skills, manage work of others, mentor youth, work with teachers and schools, coordinate county and state events, develop environments and promote 4-H. Providing a variety of quality educational experiences for volunteers will result in individuals who feel competent and capable of providing experiences for adults and youth that promote positive youth development. Missouri citizens expressed their concerns through the University of Missouri Plan of Work process over the net social and economic loss due to the outward migration of youth from their communities. Communities want their youth to go on to higher education to gain knowledge, skills and experience but lament fewer youth are returning to their home communities to provide civic and economic leadership.

2. Scope of the Program

- In-State Extension
- Multistate Extension

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

When environments include sustained opportunities for young people to gain a sense of belonging, independence, mastery and generosity, youth can: master skills to make positive life choices; effectively contribute to decision making and act responsibly; and positively influence their communities and beyond. On-going caring relationships are essential to positive youth development.

2. Ultimate goal(s) of this Program

Adults sustain safe and supportive environments where youth can thrive. Positive youth development has improved the quality of life in communities through improved social, environmental and economic conditions in communities.

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2012	25.0	0.0	0.0	0.0
2013	25.0	0.0	0.0	0.0
2014	25.0	0.0	0.0	0.0
2015	25.0	0.0	0.0	0.0
2016	25.0	0.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

County, regional and state volunteer workshops and forums, Communications, Program management, Educational Design and Delivery, Interpersonal Skills, and Youth Development; Leadership roles of 4-H clubs, projects, county and state educational events, Letters to New Leaders, and Make the Best Better Modules; Web-based instruction; Youth Protection Policies and Procedures (Volunteer Screening).

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension

Direct Methods	Indirect Methods
<ul style="list-style-type: none"> ● Workshop ● Demonstrations ● Other 1 (Exhibition, Judging, Field Trips) ● Other 2 (Camps, Educational Events) 	<ul style="list-style-type: none"> ● Newsletters ● Web sites other than eXtension

3. Description of targeted audience

Adults (youth staff, local leaders, parents, volunteers, teachers, organizational leaders), youth aged 5 - 19.

V(G). Planned Program (Outputs)

NIFA no longer requires you to report target numbers for standard output measures in the Plan of Work. However, all institutions will report actual numbers for standard output measures in the Annual Report of Accomplishments and Results. The standard outputs for which you must continue to collect data are:

- Number of contacts
 - Direct Adult Contacts
 - Indirect Adult Contacts
 - Direct Youth Contacts
 - Indirect Youth Contact
 - Number of patents submitted
 - Number of peer reviewed publications
- Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(H). State Defined Outputs

1. Output Measure

- County, regional and state volunteer workshops and forums, Leadership roles of 4-H clubs, projects, county and state educational events; Web-based instruction; Youth Protection Policies and Procedures (Volunteer Screening).
- Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(I). State Defined Outcome

O. No	Outcome Name
1	5,000 adults and youth volunteers will increase knowledge and awareness of practices fostering positive youth development.
2	5,000 adult and youth volunteers apply practices of positive youth development through leadership roles.
3	Number of volunteers in local, county, regional and state 4-H leadership roles.
4	Number of volunteers attending workshops and/or forums for personal growth.
5	Number of volunteers completing Volunteers: The Foundation of Youth Development.
6	Number of volunteers screened prior to service.

Outcome # 1

1. Outcome Target

5,000 adults and youth volunteers will increase knowledge and awareness of practices fostering positive youth development.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:5000 2013:5000 2014:5000 2015:5000 2016:5000

3. Associated Knowledge Area(s)

- 806 - Youth Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 2

1. Outcome Target

5,000 adult and youth volunteers apply practices of positive youth development through leadership roles.

2. Outcome Type : Change in Action Outcome Measure

2012:5000 2013:5000 2014:5000 2015:5000 2016:5000

3. Associated Knowledge Area(s)

- 806 - Youth Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 3

1. Outcome Target

Number of volunteers in local, county, regional and state 4-H leadership roles.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:10000 2013:10000 2014:5000 2015:8000 2016:10000

3. Associated Knowledge Area(s)

- 806 - Youth Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 4

1. Outcome Target

Number of volunteers attending workshops and/or forums for personal growth.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:400 2013:450 2014:500 2015:2000 2016:2000

3. Associated Knowledge Area(s)

- 806 - Youth Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 5

1. Outcome Target

Number of volunteers completing Volunteers: The Foundation of Youth Development.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:100 2013:1000 2014:1000 2015:2000 2016:1000

3. Associated Knowledge Area(s)

- 806 - Youth Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 6

1. Outcome Target

Number of volunteers screened prior to service.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:8000 2013:8000 2014:8000 2015:8000 2016:8000

3. Associated Knowledge Area(s)

- 806 - Youth Development

4. Associated Institute Type(s)

- 1862 Extension

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Description

{NO DATA ENTERED}

V(K). Planned Program - Planned Evaluation Studies

Description of Planned Evaluation Studies

Other: Competent completion of local, county, regional and state leadership roles.

V(A). Planned Program (Summary)

Program # 12

1. Name of the Planned Program

Built Environments and Sustainable Energy

2. Brief summary about Planned Program

Building Environments is a consumer and professional education program concerned with educating Missouri citizens and government agencies about available and affordable housing options (including programs geared toward first-time homebuyers), housing quality, landlord - tenant relations, long-term home maintenance, healthy indoor air quality, healthy homes, home safety, home disaster preparedness (fire, weather, security), and promoting environmentally sensitive and energy-efficient homes and buildings in Missouri.

3. Program existence : Mature (More than five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
605	Natural Resource and Environmental Economics	3%			
608	Community Resource Planning and Development	2%			
723	Hazards to Human Health and Safety	5%			
804	Human Environmental Issues Concerning Apparel, Textiles, and Residential and Commercial Structures	90%			
	Total	100%			

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

Quality affordable, energy efficient, and healthy housing continues to be an expressed need in various communities in rural and urban areas of Missouri. Post-purchase home-ownership education is an important part of any home-ownership program to facilitate home maintenance and retention. Homeowners may not provide necessary maintenance which could result in serious deterioration, they could fall behind on mortgage payments, save inadequately for repairs and renovation and they could over extend themselves through home equity payments due to lack of financial management. The program is based on the assumption it is critical to provide support in homecare and financial management to new homeowners, particularly households with no previous experience homeownership. Rental property

managers are often faced with a dilemma. On one hand they want to keep units full, meet fair housing obligations and as good citizens provide housing to people who need it. On the other hand, in order to stay in business they need to rent to people who are likely to pay their rent and maintain the property. One way to address this dilemma is with a community program that provides high-risk tenants with practical training to help them succeed as tenants while making them aware of their legal rights in landlord-tenant relationships. The built environment has a profound impact on the natural environment, economy, health and productivity of Missouri. Green Buildings are sited, designed, constructed, renovated, and operated in order to enhance the well-being of occupants, and to minimize negative impacts on the community and natural environment. National and state programs encouraging green building are growing and reporting successes, while hundreds of demonstration projects and private buildings across the country provide tangible examples of what green building can accomplish in terms of comfort, aesthetics, energy and resource efficiency. Breakthroughs in building science, technology and operations are available to consumers who want to build or renovate green and maximize both economic and environmental performance. However, most consumers are not knowledgeable about the appropriate technologies and design strategies affordable and easy to integrate into homes and workplaces. Because most individuals spend much time inside, homes typically account for a major share of exposure to toxins, irritants, allergens, and gases that can cause disease and unhealthy living conditions. Families need to realize the importance of pollutant-free housing for good health. A growing body of scientific research has demonstrated families who live in homes that are well ventilated, dry, and free of pests, poisons, and dangerous gases will be healthier and lead fuller lives. Many homes fall short of the basic requirements of a healthy home and contain one or more hazards that adversely affect human health. Many Missourians each year are severely affected by fire and weather disasters. Missourians might also be affected by man-made (terror) and/or seismic disasters. Emergency preparedness education teaches families a 5-step process for preparing and coping with these possible disasters.

2. Scope of the Program

- In-State Extension
- In-State Research
- Multistate Research
- Multistate Extension
- Integrated Research and Extension
- Multistate Integrated Research and Extension

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

The program uses extension specialists, government entities, and housing agencies, to serve as educators and facilitators to enable community residents and agencies to successfully develop, maintain, and monitor quality, affordable, healthy and sustainable housing in their area. This program covers these key curricula: HomeWorks: A first-time homebuyer and other homeowners program about basic home repairs, maintenance and financial management; HOME: Homebuyer education class explains the home-buying process. Topics include: financial preparedness, renting vs. owning, how much house you can afford, working with professionals to find an ideal house, home maintenance, energy management, buyer-assistance programs, mortgages, closing costs and homeowners insurance; Rent Smart: A teaching guide designed to be the core of a community tenant education program. It stresses information to help participants succeed as tenants and avoid confrontations and legal hassles. Includes guidelines and worksheets and uses role-playing exercises in conflict resolution as part of responsible renting; Home

Maintenance and Repair: Designed to help new and existing homeowners protect their investment by learning basic home repairs, financial management, maintenance, life-cycle costs, and routine inspections necessary to successfully keep a home long-term; 4-H/FACS Designing a Space of Your Own: Students learn to use home design software, house design, and explore career, community, and other resources related to housing; Healthy Homes/Healthy Indoor Air for America's Homes: Information on inspecting the home for pollutants and air-borne hazards. The program goal is to educate about sources, health risks, and control measures related to common residential pollutants, toxins, and indoor air problems. Housing-related hazards are addressed in a coordinated fashion, rather than a single hazard at a time. Topics include moisture and biologicals (molds, mildew, dust mites, etc.) and combustion products (carbon monoxide, formaldehyde, radon, household products and furnishings, asbestos, lead, particulates, secondhand smoke, and remodeling byproducts); Home Safety/Disaster Preparedness: Addresses home electrical protection, fire safety, home preparation planning for seismic and weather related disasters, and homeland security recommendations. Focuses on developing emergency plans, stocking supplies, recognizing hazards and warnings, and post-disaster relief information; Green Building: Integrated approach to green buildings and homes. Topics include energy systems, conservation and efficiency, alternative and renewable energy systems, weatherization, residential water recycling and conservation, energy-efficient appliances, insulation, residential waste recycling, renewable and natural building materials, daylighting, natural ventilation, and other similar material.

2. Ultimate goal(s) of this Program

Homeowners will gain information necessary to successfully maintain homeownership through knowledge and skill gained in home maintenance and basic care, home inspection, energy and financial management. Homeowners will take steps to protect and enhance their homes through basic maintenance, inspection, and repair skills. Cities and counties will benefit from the economic impact of an increase in quality of housing. Renters and landlords will create better partnerships with each accepting and fulfilling their respective responsibilities. Programs will promote interagency cooperation addressing housing problems. The communities where these programs are implemented will develop coalitions and skills to foster quality affordable housing development in their area through the facilitation by extension specialists. Cities and towns will develop an understanding that stereotypical notions about affordable housing are incorrect and will be exposed to various forms of housing development along with the type of public and private financial support available to generate these types of development. Communities will be able to identify important stakeholders within and outside their communities who would help them to achieve their housing goals. Communities will be able to monitor housing conditions and develop action plans for affordable housing development and maintenance. Families will know how to control and mitigate pollutants at their sources, know how to take preventive measures against these hazards, and learn how to solve problems when they are identified, in order to maintain healthy home environments. Families will reduce risks of home accidents by learning basic home safety guidelines. Families will minimize loss during fire and disasters through careful preparation and planning. Junior and Senior High Students will learn basic skills about homeownership, housing design, and renting as part of a 4-H or FACS curriculum. Educate consumers on strategies to reduce energy consumption in homes and buildings. Promote and educate consumers on weatherization in homes and buildings. Increase consumer awareness of the benefits of alternative, renewable energy systems in homes and buildings. Increase consumer awareness of the benefits of green building techniques and strategies in homes and buildings. Encourage consumer conservation of natural resources in homes and buildings. Promote and educate homebuilders and designers about ecological strategies for building site development. Encourage consumer use of recycled and/or reused materials in homes and buildings. Promote the USGBC's LEED rating system and EPA's Energy Star programs for homes and buildings in Missouri. Educate consumers about ecological waste management and water conservation/recycling systems in homes and buildings.

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2012	4.0	0.0	0.0	0.0
2013	4.0	0.0	0.0	0.0
2014	4.0	0.0	0.0	0.0
2015	4.0	0.0	0.0	0.0
2016	4.0	0.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

Conduct hands-on workshops for builders and consumers. Assemble and maintain relevant website and guidesheet information. Create a comprehensive Missouri Guide to Green Buildings. Encourage and support involvement in state, county, and local governments and agencies supporting energy-efficient, green buildings and homes. Assemble and maintain relevant website and guidesheet information on indoor air quality, home pollutants, home safety, and disaster preparedness. Maintain curriculum for K-12 schools and at-risk families. Encourage and support involvement in state, county, and local governments and agencies supporting healthy homes and disaster preparedness. Assemble and maintain relevant website and guidesheet information on housing types, maintenance, renting, home financial management and development. Develop curriculum for advocacy groups, housing agencies and nonprofit organizations. Encourage and support involvement in housing coalitions and agencies.

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension

Direct Methods	Indirect Methods
<ul style="list-style-type: none"> ● Education Class ● Workshop ● Group Discussion ● One-on-One Intervention ● Demonstrations ● Other 1 (Trade Show Displays) ● Other 2 (Software/CAD) 	<ul style="list-style-type: none"> ● Public Service Announcement ● Newsletters ● TV Media Programs ● Web sites other than eXtension

3. Description of targeted audience

Government Emergency management departments; Health Agencies; Medical groups and agencies; Day care providers; 4-H programs and Family and consumer science educators; Landlords and tenants; Builders and contractors; Real estate agents and brokers; K-12 educators, students, school districts; Consumers of home appliances; Do-it-yourself consumers; Business owners; Non-profit Energy and Ecological Organizations; Energy Cooperatives and Utilities; First Time Homebuyers; Existing and Long-term Homeowners; Non-profit Housing Agencies; Government and State Housing Directors.

V(G). Planned Program (Outputs)

NIFA no longer requires you to report target numbers for standard output measures in the Plan of Work. However, all institutions will report actual numbers for standard output measures in the Annual Report of Accomplishments and Results. The standard outputs for which you must continue to collect data are:

- Number of contacts
 - Direct Adult Contacts
 - Indirect Adult Contacts
 - Direct Youth Contacts
 - Indirect Youth Contact
 - Number of patents submitted
 - Number of peer reviewed publications
- Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(H). State Defined Outputs

1. Output Measure

- Number of workshops, programs, fairs, and conferences.
 - Number of unique website visits.
 - Number of guide sheets distributed.
 - Number of in-service opportunities.
- Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(I). State Defined Outcome

O. No	Outcome Name
1	Percent of participants who have a home disaster preparedness plan.
2	Percent of participants who secure funding to purchase a home.
3	Percent of participants who indicate they feel able to maintain their home.
4	Percent of participants who have implemented energy conservation technologies.

Outcome # 1

1. Outcome Target

Percent of participants who have a home disaster preparedness plan.

2. Outcome Type : Change in Action Outcome Measure

2012:55 2013:60 2014:60 2015:60 2016:65

3. Associated Knowledge Area(s)

- 605 - Natural Resource and Environmental Economics
- 608 - Community Resource Planning and Development
- 723 - Hazards to Human Health and Safety
- 804 - Human Environmental Issues Concerning Apparel, Textiles, and Residential and Commercial Structures

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 2

1. Outcome Target

Percent of participants who secure funding to purchase a home.

2. Outcome Type : Change in Action Outcome Measure

2012:50 2013:50 2014:50 2015:50 2016:50

3. Associated Knowledge Area(s)

- 605 - Natural Resource and Environmental Economics
- 608 - Community Resource Planning and Development
- 723 - Hazards to Human Health and Safety
- 804 - Human Environmental Issues Concerning Apparel, Textiles, and Residential and Commercial Structures

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 3

1. Outcome Target

Percent of participants who indicate they feel able to maintain their home.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:50 2013:55 2014:55 2015:55 2016:60

3. Associated Knowledge Area(s)

- 605 - Natural Resource and Environmental Economics
- 608 - Community Resource Planning and Development
- 723 - Hazards to Human Health and Safety
- 804 - Human Environmental Issues Concerning Apparel, Textiles, and Residential and Commercial Structures

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 4

1. Outcome Target

Percent of participants who have implemented energy conservation technologies.

2. Outcome Type : Change in Action Outcome Measure

2012:55 2013:60 2014:60 2015:60 2016:65

3. Associated Knowledge Area(s)

- 605 - Natural Resource and Environmental Economics
- 608 - Community Resource Planning and Development
- 723 - Hazards to Human Health and Safety
- 804 - Human Environmental Issues Concerning Apparel, Textiles, and Residential and Commercial Structures

4. Associated Institute Type(s)

- 1862 Extension

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Populations changes (immigration, new cultural groupings, etc.)

Description

V(K). Planned Program - Planned Evaluation Studies

Description of Planned Evaluation Studies

V(A). Planned Program (Summary)

Program # 13

1. Name of the Planned Program

Strengthening Families

2. Brief summary about Planned Program

The Strengthening Families Planned Program will provide families and professionals information and skills to strengthen families in their relationships, interactions and communications.

3. Program existence : Mature (More than five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
802	Human Development and Family Well-Being	60%			
806	Youth Development	40%			
	Total	100%			

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

In 2005, University of Missouri Extension conducted a Plan of Work process to assess what Extension should focus on for the next five years. Councils, public members, and Extension faculty gave their thoughts on what Extension needs to do. Families, Parenting, and Socialization were one theme that surfaced as an important focus (e.g., family health and well-being of children and teens from the phone surveys).

2. Scope of the Program

- In-State Extension
- Multistate Extension
- Integrated Research and Extension

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

Research shows strong families communicate with one another, spend time together, show each other caring and appreciation, cope with change, and show each other affection. Participants who are treated as co-learners learn better. Families have strengths that they can build on. The Strengthening Families Program will help families find their strengths and learn new skills to build on those strengths. They will be treated as co-learners who have life experiences to bring to the learning process.

2. Ultimate goal(s) of this Program

Healthy, functioning families involved in their communities.

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2012	30.0	0.0	0.0	0.0
2013	30.0	0.0	0.0	0.0
2014	30.0	0.0	0.0	0.0
2015	30.0	0.0	0.0	0.0
2016	30.0	0.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

Conduct workshops, multi-session programs and meetings; develop products, curriculum and resources; provide training; work with media; partnering with other agencies and with other state extensions.

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> ● Education Class ● Workshop ● Group Discussion ● One-on-One Intervention ● Demonstrations ● Other 1 (ITV) ● Other 2 (School fairs, etc) 	<ul style="list-style-type: none"> ● Public Service Announcement ● Newsletters ● TV Media Programs ● Web sites other than eXtension

3. Description of targeted audience

Adults, parents, teens, childcare providers, grandparents, foster parents, professionals, teachers, agency educators, youth ages 5-12.

V(G). Planned Program (Outputs)

NIFA no longer requires you to report target numbers for standard output measures in the Plan of Work. However, all institutions will report actual numbers for standard output measures in the Annual Report of Accomplishments and Results. The standard outputs for which you must continue to collect data are:

- Number of contacts
 - Direct Adult Contacts
 - Indirect Adult Contacts
 - Direct Youth Contacts
 - Indirect Youth Contact
 - Number of patents submitted
 - Number of peer reviewed publications
- Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(H). State Defined Outputs

1. Output Measure

- Number of workshops, multi-session programs, fairs, and conferences.
 - Number of guide sheets distributed.
 - Number of in-service opportunities.
 - Number of website visits.
- Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(I). State Defined Outcome

O. No	Outcome Name
1	Number of participants reporting improved family relationships.
2	Number of participants who increased their knowledge of appropriate strengthening family practices.
3	Percent of participants reporting improved family communication.
4	Percent of participants who show increased knowledge of appropriate parenting practices.
5	Percent of participants who have adopted appropriate parenting practices.
6	Percent reporting an increase in awareness of developmentally appropriate learning environments and activities.
7	Percent reporting they implemented age appropriate learning environments and activities.
8	Number of participants who volunteer more or who seek volunteer opportunities.
9	Percent reporting an increased knowledge of how to manage caregiving roles and responsibilities.
10	Percent reporting an increased knowledge of the availability of family elder care.

Outcome # 1

1. Outcome Target

Number of participants reporting improved family relationships.

2. Outcome Type : Change in Action Outcome Measure

2012:20 2013:25 2014:25 2015:50 2016:100

3. Associated Knowledge Area(s)

- 802 - Human Development and Family Well-Being
- 806 - Youth Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 2

1. Outcome Target

Number of participants who increased their knowledge of appropriate strengthening family practices.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:100 2013:100 2014:150 2015:150 2016:250

3. Associated Knowledge Area(s)

- 802 - Human Development and Family Well-Being
- 806 - Youth Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 3

1. Outcome Target

Percent of participants reporting improved family communication.

2. Outcome Type : Change in Action Outcome Measure

2012:50 2013:50 2014:50 2015:50 2016:50

3. Associated Knowledge Area(s)

- 802 - Human Development and Family Well-Being
- 806 - Youth Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 4

1. Outcome Target

Percent of participants who show increased knowledge of appropriate parenting practices.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:55 2013:60 2014:60 2015:60 2016:60

3. Associated Knowledge Area(s)

- 802 - Human Development and Family Well-Being

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 5

1. Outcome Target

Percent of participants who have adopted appropriate parenting practices.

2. Outcome Type : Change in Action Outcome Measure

2012:100 2013:100 2014:150 2015:150 2016:200

3. Associated Knowledge Area(s)

- 802 - Human Development and Family Well-Being

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 6

1. Outcome Target

Percent reporting an increase in awareness of developmentally appropriate learning environments and activities.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:50	2013:55	2014:55	2015:55	2016:60
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3. Associated Knowledge Area(s)

- 802 - Human Development and Family Well-Being

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 7

1. Outcome Target

Percent reporting they implemented age appropriate learning environments and activities.

2. Outcome Type : Change in Action Outcome Measure

2012:50	2013:50	2014:50	2015:75	2016:75
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3. Associated Knowledge Area(s)

- 802 - Human Development and Family Well-Being

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 8

1. Outcome Target

Number of participants who volunteer more or who seek volunteer opportunities.

2. Outcome Type : Change in Condition Outcome Measure

2012:50 2013:50 2014:50 2015:50 2016:50

3. Associated Knowledge Area(s)

- 802 - Human Development and Family Well-Being

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 9

1. Outcome Target

Percent reporting an increased knowledge of how to manage caregiving roles and responsibilities.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:30 2013:50 2014:75 2015:75 2016:75

3. Associated Knowledge Area(s)

- 802 - Human Development and Family Well-Being

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 10

1. Outcome Target

Percent reporting an increased knowledge of the availability of family elder care.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:50 2013:50 2014:50 2015:50 2016:50

3. Associated Knowledge Area(s)

- 802 - Human Development and Family Well-Being

4. Associated Institute Type(s)

- 1862 Extension

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Description

{NO DATA ENTERED}

V(K). Planned Program - Planned Evaluation Studies

Description of Planned Evaluation Studies

{NO DATA ENTERED}

V(A). Planned Program (Summary)

Program # 14

1. Name of the Planned Program

Personal Financial Management

2. Brief summary about Planned Program

Personal Financial Management is delivered through curricula that target low income families, family agencies, the general adult population, college students, women, unbanked consumers, consumers going through bankruptcy, young couples, divorcing couples, youth from pre-school through high school, and the elderly. This program area will also address consumer issues such as fraud and identity theft, credit reports, predatory lending and basic consumer decision-making skills.

3. Program existence : Mature (More than five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
607	Consumer Economics	40%			
801	Individual and Family Resource Management	60%			
	Total	100%			

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

Increasingly, workers must rely on personal savings and private pensions for their retirement. As individuals increase their use of financial markets, it is critical they understand at least the basics of money management, saving and investment. Former Federal Reserve Board Chairman, Alan Greenspan, addressing the National Council on Economic Education said, "Education enabling individuals to overcome their reluctance or inability to take full advantage of technological advances and product innovation can be a means of increasing economic opportunity... ..Indeed, surveys repeatedly demonstrate a strong link between education and the use of new financial technologies. In 1998, the typical user of an electronic source of information for savings or borrowing decisions had a college degree - [which is] achieved by only about one-third of U.S. households. The most recent data from the survey [provide]... evidence that we need to reach further to engage those who have not been able to participate fully. For example, while the median real net worth for all families increased 17.5 percent between 1995 and 1998, this trend did not hold true where the head of the household had a high-school level of education or less, family earnings were less than \$25,000 annually, or the ethnicity of the respondent was non-white or Hispanic. [This...is, of course, troubling, and the survey results warrant a closer look." Consumers need timely financial

education regarding retirement and estate planning, and retirement asset distribution. Financial abuse - particularly of the elderly - is on the rise. At an age when the labors of a lifetime should be enjoyed, many elders are being exploited by con artists, unscrupulous companies and even family members or caregivers. The Survey of Consumer Finances (SCF) shows a rise in families' median level of debt burden, financial stress (when debt payments take more than 40 percent of income) and the incidence of late payments. The increases cut across all income and age groups with the highest levels of financial stress in households headed by people 65 and older and earning less than \$25,000 annually. The Fair Credit Reporting Act (FCRA) protects the privacy and ensures the accuracy of consumer report information. Rules require consumers be told if credit report information is used against them, have access to their own file, be allowed to dispute credit report inaccuracies, and have outdated information removed. Employers must have consumer consent to access credit report information and consumers' names cannot be given to companies who offer credit or insurance information the consumer did not request. Consumers need accurate information to navigate an increasingly complex marketplace. The subprime mortgage industry grew by 1000 percent over the past ten years, according to the Center for Responsible Lending. Borrowers lose about \$9.1 billion annually on predatory mortgages, \$3.4 billion on payday loans, and \$3.5 billion on other abuses like overdraft loans, excessive credit card debt and tax refund loans. Consumer Issues programming arms consumers with the information they need to protect themselves in today's marketplace.

2. Scope of the Program

- In-State Extension
- In-State Research
- Multistate Extension
- Integrated Research and Extension

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

University of Missouri Extension is well-positioned to provide the general public, special target groups, youth from pre-school to high school, older citizens, and agency personnel with basic, unbiased personal finance information. With established state and national curricula that target the general public, low-income families, high school students through teachers (NEFE's High School Financial Planning Program), elders (CSREES Financial Security in Later Life), and family agencies, we hope to increase our curriculum offerings in this program to include college students, young couples, women, unbanked consumers, divorcing families, students and youngsters from day-care through high school, consumers meeting financial education requirements for bankruptcy discharge, and estate planning and retirement asset distribution strategies. Consumers need information and programming about predatory practices and consumer regulation, because such information is not readily available otherwise. Extension field faculty offers such programming statewide. They are trained to identify relevant information and assist consumers with interpreting and applying the information. Faculty report participants are often uninformed about their basic rights and consumers often comment they wish consumer information had been taught to them before they got into financial trouble. Communities statewide identified the need for consumer issues programming during the statewide needs assessment process. It will be incorporated into broader financial management workshops, newsletters and media work, provided via the worldwide web, and offered one-on-one upon request at local Extension offices. Faculty will follow best practices learned from years of experience at the local level.

2. Ultimate goal(s) of this Program

Consumers are financially literate and capable of effectively functioning in the financial marketplace. Students are on a path to financial literacy and capable of becoming effective navigators within the financial marketplace, now and for their futures. Older individuals are equipped to deal with financial issues related to later stages of life. Consumers understand the hazards and high costs of predatory lending. Consumers have greater ability to protect themselves in the marketplace.

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2012	6.0	0.0	0.0	0.0
2013	6.0	0.0	0.0	0.0
2014	6.0	0.0	0.0	0.0
2015	6.0	0.0	0.0	0.0
2016	6.0	0.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

University of Missouri campus and regional specialist will: Work in partnership to identify audience needs; Develop appropriate curriculum and program strategies; and Evaluate the impact of the educational experiences. Delivery strategies will include: Workshops; One-on-one coaching sessions; Training for professionals and eldercare providers; Written materials; Educational packets; Newsletters; Newspaper articles; Radio and television spots; and Web-based informational tools.

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	Indirect Methods
<ul style="list-style-type: none"> ● Education Class ● Workshop ● Group Discussion ● One-on-One Intervention 	<ul style="list-style-type: none"> ● Public Service Announcement ● Newsletters ● TV Media Programs ● Web sites other than eXtension

3. Description of targeted audience

General population, general adult population, low income families, unbanked consumers, consumers going through bankruptcy, youth from pre-school through high school, college students, young couples, divorcing couples, women, older individuals and the elderly (55 and beyond), and family agencies.

V(G). Planned Program (Outputs)

NIFA no longer requires you to report target numbers for standard output measures in the Plan of Work. However, all institutions will report actual numbers for standard output measures in the Annual Report of Accomplishments and Results. The standard outputs for which you must continue to collect data are:

- Number of contacts
 - Direct Adult Contacts
 - Indirect Adult Contacts
 - Direct Youth Contacts
 - Indirect Youth Contact
 - Number of patents submitted
 - Number of peer reviewed publications
- Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(H). State Defined Outputs

1. Output Measure

- Number of workshops, multi-session programs, fairs and conferences.
 - Number of in-service opportunities.
 - Number of unique website visits.
 - Number of guide sheets distributed.
- Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(I). State Defined Outcome

O. No	Outcome Name
1	Number of participants who increased knowledge of debt management.
2	Number of participants who increased knowledge of the benefits of saving on a regular basis.
3	Number of participants who increased knowledge of basic personal financial management.
4	Number of participants who have reduced their debt.
5	Number of participants who began saving on a regular basis.
6	Number of participants who increased the amount of money they save regularly.
7	Number of participants who have established financial goals to guide financial decisions.
8	Percent of participants who check their credit report.
9	Percent of participants who understand their rights under the Fair Credit Reporting Act.

Outcome # 1

1. Outcome Target

Number of participants who increased knowledge of debt management.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:25 2013:25 2014:25 2015:25 2016:25

3. Associated Knowledge Area(s)

- 607 - Consumer Economics
- 801 - Individual and Family Resource Management

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 2

1. Outcome Target

Number of participants who increased knowledge of the benefits of saving on a regular basis.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:25 2013:25 2014:25 2015:25 2016:25

3. Associated Knowledge Area(s)

- 607 - Consumer Economics
- 801 - Individual and Family Resource Management

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 3

1. Outcome Target

Number of participants who increased knowledge of basic personal financial management.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:25 2013:25 2014:25 2015:25 2016:25

3. Associated Knowledge Area(s)

- 607 - Consumer Economics
- 801 - Individual and Family Resource Management

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 4

1. Outcome Target

Number of participants who have reduced their debt.

2. Outcome Type : Change in Action Outcome Measure

2012:10 2013:10 2014:10 2015:10 2016:10

3. Associated Knowledge Area(s)

- 607 - Consumer Economics
- 801 - Individual and Family Resource Management

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 5

1. Outcome Target

Number of participants who began saving on a regular basis.

2. Outcome Type : Change in Action Outcome Measure

2012:10 2013:10 2014:10 2015:10 2016:10

3. Associated Knowledge Area(s)

- 607 - Consumer Economics
- 801 - Individual and Family Resource Management

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 6

1. Outcome Target

Number of participants who increased the amount of money they save regularly.

2. Outcome Type : Change in Action Outcome Measure

2012:10	2013:10	2014:10	2015:10	2016:10
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3. Associated Knowledge Area(s)

- 607 - Consumer Economics
- 801 - Individual and Family Resource Management

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 7

1. Outcome Target

Number of participants who have established financial goals to guide financial decisions.

2. Outcome Type : Change in Action Outcome Measure

2012:25	2013:25	2014:25	2015:25	2016:25
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3. Associated Knowledge Area(s)

- 607 - Consumer Economics
- 801 - Individual and Family Resource Management

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 8

1. Outcome Target

Percent of participants who check their credit report.

2. Outcome Type : Change in Condition Outcome Measure

2012:20 2013:20 2014:20 2015:20 2016:20

3. Associated Knowledge Area(s)

- 607 - Consumer Economics
- 801 - Individual and Family Resource Management

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 9

1. Outcome Target

Percent of participants who understand their rights under the Fair Credit Reporting Act.

2. Outcome Type : Change in Condition Outcome Measure

2012:55 2013:60 2014:60 2015:60 2016:60

3. Associated Knowledge Area(s)

- 607 - Consumer Economics
- 801 - Individual and Family Resource Management

4. Associated Institute Type(s)

- 1862 Extension

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations

- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Description

All external factors listed above have an impact on family finances and the ability of communities to provide support to families. Identity theft is a growing threat. In 2002, identity theft resulted in more than \$24 billion in losses in the U.S. By the end of 2005, losses from identity theft could amount to \$2 trillion worldwide. The subprime mortgage industry has grown by 1000% over the past ten years, according to the Center for Responsible Lending. Borrowers lose an estimated \$9.1 billion annually on predatory mortgages, \$3.4 billion on payday loans, and \$3.5 billion on other lending abuses like overdraft loans, excessive credit card debt and tax refund loans. There are few laws to protect consumers from predatory practices. In Missouri, for example, rent-to-own store fees are not subject to regulation. Stores can charge whatever effective annual percentage rate (APR) they want--as rental fees. Payday loan stores must disclose their APRs but there is no limit to what they can charge. In 2004, the average APR for Missouri payday loans was 408.3%. That underemployment, estimated at 9.6% of the workforce in 2004, is also a problem. Pawn shops and car title lenders have regulated APRs, but are allowed to charge whatever they want for storage and insurance fees for merchandise in their possession. Predatory subprime mortgage lenders are free to charge whatever they choose for upfront costs, even if the fees are disproportionate to the additional risk they assume with "bad credit" borrowers. Consumers struggling to survive at or near minimum wage often do not have (or do not know they have) better options. It is easier for predatory lenders to take advantage of consumers who do not understand their rights or what businesses are and are not allowed to do.

V(K). Planned Program - Planned Evaluation Studies

Description of Planned Evaluation Studies

Most curricula within this program have end of session/series evaluations. Some curricula (e.g., Get Checking) will implement a post-program follow-up, perhaps multiple points, depending on feasibility. More will be developed as new curricula in this program area are developed and added.

V(A). Planned Program (Summary)

Program # 15

1. Name of the Planned Program

Food Safety

2. Brief summary about Planned Program

The approach to food safety education through the University of Missouri Extension involves answering consumer questions and teaching safe food handling concepts within the Family Nutrition Education Program curriculum. Opportunities for programming regarding food safety happen sporadically throughout the state. Extension will deliver food safety lessons developed on safe food handling research. Programs include but are not limited to occasional quantity cooks, FNEP, FSNE, and Food Power. The evaluation data of these methods indicate successful behavior change regarding food handling.

3. Program existence : Mature (More than five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins	100%			
	Total	100%			

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

The need is to protect food from contamination by pathogenic microorganisms, parasites and naturally occurring toxins. Current data indicates a large portion of the population is improperly and unsafely handling food in the home leading to potentially lethal illnesses. Seventy-six million cases of food-borne illnesses per year with 325,000 cases resulting in hospitalizations and 5,000 deaths. Clients include limited resource families, school children, minority families, youth, adults, daycare providers, etc.

2. Scope of the Program

- Multistate Extension
- Integrated Research and Extension

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

The majority of successful self-changers unconsciously follow a similar sequence of activities and attitudes. Furthermore, these stages of change remain fairly constant no matter what area of behavior change is being considered. The six stages defined by James Prochaska, Ph.D. and his colleagues are pre-contemplation, contemplation, preparation, action, maintenance and termination. At any point in time, only about 20 percent of the population is ready to make a behavior change i.e., is in the action stage or above. For these individuals, the role of the instructor is to create an environment where active learning can occur so individuals have access to the knowledge, skills and support needed to move from preparing to change to maintaining desired behavior changes. From a programmatic standpoint, educating people who are at the pre-contemplation, contemplation or preparation stage (about 80 percent of the population) involves using educational strategies that increase general awareness and knowledge, raise individual consciousness and knowledge, and change attitudes regarding safe food practices.

2. Ultimate goal(s) of this Program

Decrease the incidence of disease associated with contamination of food resulting from household food handling practices.

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2012	6.0	0.0	0.0	0.0
2013	6.0	0.0	0.0	0.0
2014	6.0	0.0	0.0	0.0
2015	6.0	0.0	0.0	0.0
2016	6.0	0.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

Number of Curriculum developed; Number of individual inquiries responded to; Number of trainings for large groups; Number of smaller workshops; Number of guide sheets written; Number of newsletter articles written; Number of media interviews held.

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	Indirect Methods

- | | |
|---|--|
| <ul style="list-style-type: none">● Education Class● Workshop● One-on-One Intervention● Demonstrations | <ul style="list-style-type: none">● Public Service Announcement● Newsletters● TV Media Programs● Web sites other than eXtension |
|---|--|

3. Description of targeted audience

Pre K - 12th grade students, food stamp individuals and households, general adults, older adults, nursing home assistants, daycare providers.

V(G). Planned Program (Outputs)

NIFA no longer requires you to report target numbers for standard output measures in the Plan of Work. However, all institutions will report actual numbers for standard output measures in the Annual Report of Accomplishments and Results. The standard outputs for which you must continue to collect data are:

- Number of contacts
 - Direct Adult Contacts
 - Indirect Adult Contacts
 - Direct Youth Contacts
 - Indirect Youth Contact
- Number of patents submitted
- Number of peer reviewed publications

Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(H). State Defined Outputs

1. Output Measure

- Number of workshops, multi-session programs, fairs and conferences.
- Number of in-service opportunities.
- Number of website visits.
- Number of guide sheets.

Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(I). State Defined Outcome

O. No	Outcome Name
1	Percent reporting an increased knowledge of proper hand washing.
2	Percent reporting an increased knowledge of cooking foods adequately.
3	Percent reporting an increased knowledge of avoiding cross-contamination.
4	Percent reporting an increased knowledge of keeping food at a safe temperature.
5	Percent reporting an increased knowledge of storing foods properly.
6	Percent reporting an intent to adopt one or more safe food handling practices.

Outcome # 1

1. Outcome Target

Percent reporting an increased knowledge of proper hand washing.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:50 2013:50 2014:50 2015:50 2016:50

3. Associated Knowledge Area(s)

- 712 - Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 2

1. Outcome Target

Percent reporting an increased knowledge of cooking foods adequately.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:25 2013:25 2014:25 2015:25 2016:25

3. Associated Knowledge Area(s)

- 712 - Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 3

1. Outcome Target

Percent reporting an increased knowledge of avoiding cross-contamination.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:25 2013:25 2014:25 2015:25 2016:25

3. Associated Knowledge Area(s)

- 712 - Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 4

1. Outcome Target

Percent reporting an increased knowledge of keeping food at a safe temperature.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:25 2013:25 2014:25 2015:25 2016:25

3. Associated Knowledge Area(s)

- 712 - Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 5

1. Outcome Target

Percent reporting an increased knowledge of storing foods properly.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:25 2013:25 2014:25 2015:25 2016:25

3. Associated Knowledge Area(s)

- 712 - Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 6

1. Outcome Target

Percent reporting an intent to adopt one or more safe food handling practices.

2. Outcome Type : Change in Action Outcome Measure

2012:50	2013:50	2014:50	2015:50	2016:50
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3. Associated Knowledge Area(s)

- 712 - Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

4. Associated Institute Type(s)

- 1862 Extension

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Populations changes (immigration, new cultural groupings, etc.)

Description

Increased immigrant population. Natural disasters especially flooding, tornadoes and severe storms that result in power outages. A lower income audience may tend to hold onto food longer than appropriate.

V(K). Planned Program - Planned Evaluation Studies

Description of Planned Evaluation Studies

{NO DATA ENTERED}

V(A). Planned Program (Summary)

Program # 16

1. Name of the Planned Program

Nutrition, Health and Physical Activity

2. Brief summary about Planned Program

Provide nutrition and health education for adults and youth ages 3 through 18. Current programming includes: Dining with Diabetes, Health for Every Body, Stay Strong Stay Healthy, Fitness and Wellness of a Lifetime, Show-Me Shape-Up, Missouri on the Move, Jump Into Action, Food Power, Food Stamp Nutrition Education, Expanded Nutrition Education and local programs related to chronic disease prevention and management. These programs provide basic food, nutrition and healthy lifestyle information that promote healthy food choices, physical activity and chronic disease prevention and management. Additional programming needs include expanding programs related to physical activity, food purchasing/preparation, disordered eating, and a healthful approach to weight management. Ongoing collaboration with community agencies and organizations, such as the Department of Elementary and Secondary Education and Department of Health and Senior Services, will be used to help promote educational programs.

3. Program existence : Mature (More than five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
703	Nutrition Education and Behavior	25%			
724	Healthy Lifestyle	50%			
806	Youth Development	25%			
	Total	100%			

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

Available research data from CDC supports increased rates of obesity, type 2 diabetes, decreased physical activity, and low consumption of fruits, vegetables and whole grains in adults and youth. This is a state and national concern due to the economic burden of obesity and the health consequences of chronic disease such as diabetes. Obesity can place a person at an increased risk for chronic health problems including heart disease, stroke, diabetes, and some forms of cancer. In Missouri, 62 percent of adults are overweight or obese, and 32 percent of youth grades 6-8 are overweight or at risk for becoming

overweight. In addition poor eating habits and physical inactivity also contribute to chronic health problems. Research data shows that 80 percent of Missouri adults and 85 percent of Missouri youth consume less than 5 fruits and vegetables per day; and 84 percent of youth drank less than 3 glasses of milk a day. Furthermore, 55 percent of Missouri adults report they do not engage in the recommended 30 minutes of physical activity five or more days of the week; 24 percent of adults reported that they did not participate in any physical activity in the last month. As for Missouri youth, 72 percent participated in insufficient moderate physical activity and 67 percent did not attend physical education class daily. This is a state and national concern due to the economic burden of obesity and the health consequences of chronic disease. Based on available data, program priorities must be on providing adults and youth with the knowledge and skills needed to promote healthful eating and develop a life-long interest in physical activity.

2. Scope of the Program

- In-State Extension
- Multistate Extension
- Multistate Integrated Research and Extension

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

The majority of successful self-changers unconsciously follow a similar sequence of activities and attitudes. Furthermore, these stages of change remain fairly constant no matter what area of behavior change is being considered. The six stages defined by James Prochaska, Ph.D. and his colleagues are pre-contemplation, contemplation, preparation, action, maintenance, and termination. At any point in time, only about 20 percent of the population is ready to make a behavior change, i.e., is in the action stage or above. For these individuals, the role of the instructor is to create an environment where active learning can occur so individuals have access to the knowledge, skills and support needed to move from preparing to change to maintaining desired behavior changes. From a programmatic standpoint, educating people who are at the pre-contemplation, contemplation or preparation stage (about 80 percent of the population) involves using educational strategies that increase general awareness and knowledge, raise individual consciousness and knowledge, and change attitudes. From a system's perspective, improving health status, not only involves promoting individual behavior change, but building the capacity of communities to support individual behavior change efforts. Our educational programs are built on best practices of adult and youth education, focusing on the stages of change theory and emphasize experiential learning in such areas as food tasting and preparation, physical activity, hand washing and positive body image. Past evaluation data supports positive behavior changes have occurred as a result of our current programs.

2. Ultimate goal(s) of this Program

Fewer risk factors for nutrition-related health problems and chronic diseases affected by diet and physical activity. Fewer complications of chronic diseases affected by diet, physical activity and self-care management. Decreased community barriers to adoption of healthy lifestyle practices.

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890

Year	Extension		Research	
	1862	1890	1862	1890
2012	15.0	0.0	0.0	0.0
2013	15.0	0.0	0.0	0.0
2014	15.0	0.0	0.0	0.0
2015	15.0	0.0	0.0	0.0
2016	15.0	0.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

Use direct and indirect methods to provide education and targeted messages on nutrition, physical activity, and self-care management. Some specific methods used will include group education, workshops, train-the-trainer strategies, newsletters, web-based education, and media efforts. In addition there will be community level interventions through partnerships that will be developed. This will include working with local coalitions to develop awareness campaigns.

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension

Direct Methods	Indirect Methods
<ul style="list-style-type: none"> ● Education Class ● Workshop ● Group Discussion ● One-on-One Intervention ● Demonstrations 	<ul style="list-style-type: none"> ● Public Service Announcement ● Newsletters ● TV Media Programs ● Web sites other than eXtension

3. Description of targeted audience

Adults, youth ages 3 through 18, low-income Missourians, pregnant women, adults 55 and older, volunteers, teachers and community members, school teachers and nurses, other adults interested in improving their quality of life.

V(G). Planned Program (Outputs)

NIFA no longer requires you to report target numbers for standard output measures in the Plan of Work. However, all institutions will report actual numbers for standard output measures in the Annual Report of Accomplishments and Results. The standard outputs for which you must continue to collect data are:

- Number of contacts
 - Direct Adult Contacts
 - Indirect Adult Contacts
 - Direct Youth Contacts
 - Indirect Youth Contact
 - Number of patents submitted
 - Number of peer reviewed publications
- Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(H). State Defined Outputs

1. Output Measure

- Number of workshops, conferences, multi-session programs and fairs held.
 - Number of in-service opportunities.
 - Number of partnerships formed.
 - Number of community campaigns conducted.
 - Number of website visits.
 - Number of volunteers trained.
 - Number of guide sheets distributed.
- Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(I). State Defined Outcome

O. No	Outcome Name
1	Percent of participants reporting improved attitudes about healthy eating and physical activity.
2	Percent of participants who exhibit increased awareness/knowledge of physical activity recommendations for health.
3	Percent of participants who exhibit increased awareness/knowledge of healthy food choices.
4	Percent of participants who exhibit improved skill in selecting healthy foods.
5	Percent of participants reporting increased self efficacy about managing chronic conditions.
6	Percent of participants who report improved skills in preparation of healthy foods.
7	Percent that adopt one or more healthy food/nutrition practices.
8	Percent that begin or increase physical activity.
9	Percent that tries and accepts new foods.
10	Percent that increase participation in regular physical activity.
11	Percent that improve behavior changes based on MyPyramid and the Dietary Guidelines.

Outcome # 1

1. Outcome Target

Percent of participants reporting improved attitudes about healthy eating and physical activity.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:55 2013:60 2014:60 2015:60 2016:60

3. Associated Knowledge Area(s)

- 703 - Nutrition Education and Behavior
- 724 - Healthy Lifestyle
- 806 - Youth Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 2

1. Outcome Target

Percent of participants who exhibit increased awareness/knowledge of physical activity recommendations for health.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:55 2013:60 2014:60 2015:60 2016:60

3. Associated Knowledge Area(s)

- 703 - Nutrition Education and Behavior
- 724 - Healthy Lifestyle
- 806 - Youth Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 3

1. Outcome Target

Percent of participants who exhibit increased awareness/knowledge of healthy food choices.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:55 2013:60 2014:60 2015:60 2016:60

3. Associated Knowledge Area(s)

- 703 - Nutrition Education and Behavior
- 724 - Healthy Lifestyle
- 806 - Youth Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 4

1. Outcome Target

Percent of participants who exhibit improved skill in selecting healthy foods.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:55 2013:60 2014:60 2015:60 2016:60

3. Associated Knowledge Area(s)

- 703 - Nutrition Education and Behavior
- 724 - Healthy Lifestyle
- 806 - Youth Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 5

1. Outcome Target

Percent of participants reporting increased self efficacy about managing chronic conditions.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:25 2013:25 2014:25 2015:25 2016:25

3. Associated Knowledge Area(s)

- 703 - Nutrition Education and Behavior
- 724 - Healthy Lifestyle
- 806 - Youth Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 6

1. Outcome Target

Percent of participants who report improved skills in preparation of healthy foods.

2. Outcome Type : Change in Action Outcome Measure

2012:55 2013:60 2014:60 2015:60 2016:60

3. Associated Knowledge Area(s)

- 703 - Nutrition Education and Behavior
- 724 - Healthy Lifestyle
- 806 - Youth Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 7

1. Outcome Target

Percent that adopt one or more healthy food/nutrition practices.

2. Outcome Type : Change in Action Outcome Measure

2012:50 2013:50 2014:50 2015:50 2016:50

3. Associated Knowledge Area(s)

- 703 - Nutrition Education and Behavior
- 724 - Healthy Lifestyle
- 806 - Youth Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 8

1. Outcome Target

Percent that begin or increase physical activity.

2. Outcome Type : Change in Action Outcome Measure

2012:25 2013:25 2014:25 2015:25 2016:25

3. Associated Knowledge Area(s)

- 703 - Nutrition Education and Behavior
- 724 - Healthy Lifestyle
- 806 - Youth Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 9

1. Outcome Target

Percent that tries and accepts new foods.

2. Outcome Type : Change in Action Outcome Measure

2012:25 2013:25 2014:25 2015:25 2016:25

3. Associated Knowledge Area(s)

- 703 - Nutrition Education and Behavior
- 724 - Healthy Lifestyle
- 806 - Youth Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 10

1. Outcome Target

Percent that increase participation in regular physical activity.

2. Outcome Type : Change in Action Outcome Measure

2012:25 2013:25 2014:25 2015:25 2016:25

3. Associated Knowledge Area(s)

- 703 - Nutrition Education and Behavior
- 724 - Healthy Lifestyle
- 806 - Youth Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 11

1. Outcome Target

Percent that improve behavior changes based on MyPyramid and the Dietary Guidelines.

2. Outcome Type : Change in Action Outcome Measure

2012:25

2013:25

2014:25

2015:25

2016:25

3. Associated Knowledge Area(s)

- 703 - Nutrition Education and Behavior
- 724 - Healthy Lifestyle
- 806 - Youth Development

4. Associated Institute Type(s)

- 1862 Extension

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Other (Participant self responsibility)

Description

V(K). Planned Program - Planned Evaluation Studies

Description of Planned Evaluation Studies

{NO DATA ENTERED}

V(A). Planned Program (Summary)

Program # 17

1. Name of the Planned Program

Ensuring Safe Communities

2. Brief summary about Planned Program

Ensuring Safe Communities includes primarily the Community Emergency Management Program that provides a program of resources, personnel and educational programs and materials to support the mission of the Governor’s Disaster Recovery Partnership (established 1993) and develop the capability to assist communities and citizens in all areas of emergency management. The program, in partnership with the Fire Rescue Training Institute, provides educational programming and technical assistance to federal, state and local entities, professional and non-profit organizations, businesses, and educational institutions. The program provides assistance in establishing COAD (Community Organizations Active in Disasters), disaster preparedness and recovery educational materials and workshops to communities and organizations, consulting with local emergency planning committees and/or citizen councils, representing Extension in meetings of federal, state and local emergency management organizations after disasters, assisting local entities in identification of funding sources for emergency management and homeland security (e.g., USDA-RD, fire grants), and coordinating Extension disaster activities. The program also actively participates in the Extension Disaster Education Network (EDEN).

3. Program existence : Mature (More than five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds :Yes

6. Expending other than formula funds or state-matching funds : Yes

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
805	Community Institutions, Health, and Social Services	100%			
	Total	100%			

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

Community emergency preparedness is critical. Missouri experiences at least 10 significant emergencies such as floods, ice storms, and tornadoes each year. From 2004-2010 Missouri was devastated by natural events which received 20 Presidential disaster declarations, ranking at the top among other states during the period. Missouri now ranks 8th as the most disaster prone state in the last 50 years (*Source: FEMA*). After disasters, Extension is called on regularly by SEMA to facilitate unmet-needs committees and Community Organizations Assisting in Disaster. In addition, numerous local natural disasters occur frequently throughout the year and without warning. After disasters, Extension is called on regularly by SEMA to facilitate unmet-needs committees and Community Organizations Assisting in

Disaster (Source: Missouri Fire Rescue and Training Institute, 2005). All aspects of community and personal life can be impacted by natural or man-made disasters. Regardless of size or impact, all disasters are local events, and approximately 1 percent of all disasters meet the requirements for the President to declare a disaster. Thus it falls upon local organizations and other organizations that can provide assistance from the outside to manage the majority of events that occur in communities. Nurturing community linkages before, during and after disasters has been shown by research to be critical to community viability. The focus is to build the knowledge and skills needed to develop and implement policies, plans, and procedures to protect life, property, business survivability, community sustainability and the environment through applications of sound emergency management principles in all phases of emergency management.

2. Scope of the Program

- In-State Extension
- Multistate Extension

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

Disasters will occur with relative frequency and impact local communities. Communities are better prepared to handle homeland security risks by being prepared to handle natural disasters and environmental disasters (which have much higher probability of occurring). Extension can become a key disaster resource for communities to rely upon. Faculty and staff should learn general emergency management principles. All Extension offices and components should engage in mitigation and preparedness measures to ensure survivability from a disaster event. This program will improve the efficacy of Extension in disasters. Communities using Community Development models can become more disaster resilient. Extension is a key player in bringing together and facilitating diverse community groups.

2. Ultimate goal(s) of this Program

Increased capacity of individuals and families, businesses, farms, organizations, and communities to prepare for and respond to and recover from disaster effectively by mobilizing the community human and social capital for common purposes.

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2012	4.0	0.0	0.0	0.0
2013	4.0	0.0	0.0	0.0
2014	4.0	0.0	0.0	0.0
2015	4.0	0.0	0.0	0.0
2016	4.0	0.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

Establish and assist COAD (Community Organizations Active in Disasters). Provide disaster educational materials and workshops to communities and organizations. Build partnerships with local, state, federal agencies and organizations. Consult with local emergency planning committees and/or citizen councils. Represent Extension at meetings of federal, state and local emergency management organizations after disasters. Provide training for preparedness. Assist local entities in identification of funding sources for community emergency management and homeland security, e.g., USDA-RD, fire grants, etc. Provide disaster preparedness and mitigation leadership for Extension itself. Coordinate and participate in Extension disaster activities.

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension

Direct Methods	Indirect Methods
<ul style="list-style-type: none"> ● Education Class ● Workshop ● Group Discussion ● One-on-One Intervention ● Demonstrations ● Other 1 (Simulations) 	<ul style="list-style-type: none"> ● Public Service Announcement ● Newsletters ● TV Media Programs ● Web sites other than eXtension

3. Description of targeted audience

Targeted audience is all social groups in the community, including low-income and minority, Spanish-speaking, community organizations, local government, home builders, agencies that assist in disaster, businesses and farmers. No limitation on gender, ethnic or religious diversity, lifestyle choice, etc.

V(G). Planned Program (Outputs)

NIFA no longer requires you to report target numbers for standard output measures in the Plan of Work. However, all institutions will report actual numbers for standard output measures in the Annual Report of Accomplishments and Results. The standard outputs for which you must continue to collect data are:

- Number of contacts
 - Direct Adult Contacts
 - Indirect Adult Contacts
 - Direct Youth Contacts
 - Indirect Youth Contact
- Number of patents submitted
- Number of peer reviewed publications

Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(H). State Defined Outputs

1. Output Measure

- Number of communities assisted with training and facilitation for disaster preparedness.
 - Number of partner hours leveraged.
 - Number of unique visits(hits) to Community Emergency Management Web page.
 - Number of volunteer hours leveraged.
- Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(I). State Defined Outcome

O. No	Outcome Name
1	Average change in mean score of workshop participants' (Likert 5 pt scale with 5 highest) self-reported learning from post-pre-post survey.
2	Number of Community Organizations Active in Disaster (COADs) created and/or functioning to meet local needs.
3	Percent of participants in workshops/training having adopted practices such as disaster plans and kits developed.
4	Number of organizations that make changes after conduct of emergency management exercise in the community.
5	Number of county Extension offices that adopted or reviewed disaster plans and preparedness measures during the past year.
6	Dollar value of resources leveraged (volunteer hours, grants for warning systems, etc.) for emergency management.

Outcome # 1

1. Outcome Target

Average change in mean score of workshop participants' (Likert 5 pt scale with 5 highest) self-reported learning from post-pre-post survey.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:1 **2013:1** **2014:1** **2015:1** **2016:1**

3. Associated Knowledge Area(s)

- 805 - Community Institutions, Health, and Social Services

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 2

1. Outcome Target

Number of Community Organizations Active in Disaster (COADs) created and/or functioning to meet local needs.

2. Outcome Type : Change in Condition Outcome Measure

2012:10 **2013:10** **2014:10** **2015:10** **2016:10**

3. Associated Knowledge Area(s)

- 805 - Community Institutions, Health, and Social Services

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 3

1. Outcome Target

Percent of participants in workshops/training having adopted practices such as disaster plans and kits developed.

2. Outcome Type : Change in Action Outcome Measure

2012:50 2013:50 2014:50 2015:50 2016:50

3. Associated Knowledge Area(s)

- 805 - Community Institutions, Health, and Social Services

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 4

1. Outcome Target

Number of organizations that make changes after conduct of emergency management exercise in the community.

2. Outcome Type : Change in Action Outcome Measure

2012:60 2013:60 2014:60 2015:60 2016:60

3. Associated Knowledge Area(s)

- 805 - Community Institutions, Health, and Social Services

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 5

1. Outcome Target

Number of county Extension offices that adopted or reviewed disaster plans and preparedness measures during the past year.

2. Outcome Type : Change in Action Outcome Measure

2012:50 2013:50 2014:50 2015:50 2016:50

3. Associated Knowledge Area(s)

- 805 - Community Institutions, Health, and Social Services

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 6

1. Outcome Target

Dollar value of resources leveraged (volunteer hours, grants for warning systems, etc.) for emergency management.

2. Outcome Type : Change in Action Outcome Measure

2012:70000 **2013:**70000 **2014:**70000 **2015:**70000 **2016:**70000

3. Associated Knowledge Area(s)

- 805 - Community Institutions, Health, and Social Services

4. Associated Institute Type(s)

- 1862 Extension

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Description

The degree to which disaster strikes and the extent of its coverage (including terrorist acts and threats) will greatly impact the work accomplished.

V(K). Planned Program - Planned Evaluation Studies

Description of Planned Evaluation Studies

Generally, conduct post-pre-post evaluations at the conclusion of the training, course, workshop to determine learning and intent to apply learning. Conduct follow-up evaluation of application within six to twelve months for most such offerings to determine application of learning. Documentation of COAD

work and community response will also be monitored.

V(A). Planned Program (Summary)

Program # 18

1. Name of the Planned Program

Sustainable and Viable Communities

2. Brief summary about Planned Program

Addressing the long-term viability of communities embraces a holistic focus in which we work collaboratively with communities to foster sustainable economic development, leadership development, community decision making, and inclusive communities. This entails working with communities and partners through planning; analysis of data, trends, and options; leadership development; and fostering a climate for innovation. This program provides an array of community decision support tools and participatory processes to support analysis, ways for people to dialogue and explore options, policy development, development of a vision and planning processes, implementation of plans, conflict resolution tools, and support and training for local government. Community leadership development increases the capacity of adults and youth (ages 14-18), organizations, and communities to address community problems effectively by mobilizing the range of community capital for common purposes of addressing community issues and needs. Local programs fit the needs and character of the locale. The program also helps people, organizations, and communities deal with the challenges presented by the dramatic changes occurring in society in productive ways that respect differences and embrace the diversity that makes communities vibrant places to live, work and play. The program seeks to help community and organizational leaders engage everyone with an interest in their community in addressing the issues that affect their development and develop the intercultural capacity of communities to deal with a changing population. The program increases the capacity of communities to frame, dialogue and address public policy issues/problems through deliberative processes. This program is essential to building the capacity to deal locally with healthy lifestyles and food systems, energy alternatives, create local economic opportunities and sustainable communities for the future.

3. Program existence : Mature (More than five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
608	Community Resource Planning and Development	37%			
610	Domestic Policy Analysis	3%			
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	39%			
805	Community Institutions, Health, and Social Services	11%			
806	Youth Development	10%			
	Total	100%			

V(C). Planned Program (Situation and Scope)**1. Situation and priorities**

Communities are more diverse. The Latino population increased nearly four times that of the total population. The average age is increasing. Some communities see an influx of retirees and others an exodus of youth; some are growing; others continue to experience decline.

Local governments struggle with increasing pressures and demands: unfunded state and federal mandates, devolution, rising energy costs, increasing numbers of people without a social safety net, reduced tax revenues and budget shortfalls. Public issues are complex, contentious, interconnected. They cross jurisdictional, political, and social boundaries. Most public issues lack well-defined technical definitions and solutions and clear-cut criteria to judge their resolution. Local officials are turning to increased public participation in decision-making processes to gain public ownership. Public issues and problems are often addressed in ways that polarize people in competing camps, which impedes communication and deliberation. Citizens are often on the sidelines of public life, disengaged from civic institutions and processes where they have become spectators as others make important decisions that affect their lives and communities.

Economic and quality-of-life contributions of the nonprofit sector are critical yet often overlooked for development and educational efforts. In Missouri, this sector accounts for 8.6% of employment (over half is in health and 28% in education and social services) and 7.9 % of payroll - exceeding wholesale trade, construction, and mining.

The seven pillars of a healthy community include practicing ongoing dialogue; generating leadership; shaping its future; embracing diversity; knowing itself; connecting people and resources, and creating a sense of community (Association for Healthy Cities and Communities). Fostering critical new leadership voices among youth, elderly, new immigrants and the low-income population occurs best through local efforts that can be more responsive to local needs and organized around a pressing issue or for a particular constituency (Kellogg Foundation).

Missouri continues to experience high unemployment-hovering around 9.5% since 2009. The current economic downturn has hurt business development and expansions across the state. Community economic development strategies require a new way of thinking that includes: a) sustainability that integrates social, environmental and economic aspects, creating opportunities for a new, green and equitable economy; b) local knowledge and skills (including cultural heritage, arts, and nature) as a critical source for entrepreneurial economic stability and growth; c) creating local and regional place-based

systems and partnerships to support entrepreneurship and business retention; e) measures of success based on the quality of community, quality of jobs created and ability to provide decent living; and g) providing high-speed broadband to develop, sustain, and expand businesses.

2. Scope of the Program

- In-State Extension
- Multistate Extension
- Integrated Research and Extension

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

People have an interest in improving their local community and situation. Community decision-making is best when it involves a broad spectrum of community members in community deliberation, planning and implementation. Community decision-making is improved by use of information and analysis of alternatives. An informed citizenry will be more involved in their community. Perspectives from varying backgrounds add innovative ideas to decision-making. Effective communities have a unique way of understanding how the community educates itself in the community's business. Involving and working with people is important to accomplishing work that needs to be done.

Including the interests of all members of the community is the essence of public engagement that serves the best interest of communities. Conditions that affect those least able to succeed affect everyone in the community. Building Inclusive communities is an ongoing process of engagement, education, and community action aimed at getting the widest representation of the community involved in the planning and development of the community. Existing leadership is capable and interested in creating space for others to participate in community affairs.

Everyone is a leader, and citizens from all walks of life need to accept responsibility for problem solving. Leadership is not innate, it can be learned. A flexible dispersed leadership pattern is an element of community entrepreneurship. Healthy Communities generate leadership everywhere. Successful and sustainable communities enhance human and social capital by increased use of the skills, knowledge and ability of local people. Community leadership is one component of an effective community. An influence relationship is important among leaders and collaborators who intend real changes that reflect their mutual purposes. Leadership development is a process, not a quality. Results come from combined efforts and commitment of all in the community and/or organization.

Entrepreneurship is a critical factor in local economies. Growth and serial entrepreneurs are not easily discerned; so all entrepreneurs need nurturing. All forms of entrepreneurship contribute to the quality and economy of the community. A community culture that nurtures entrepreneurship is as critical as actual skill and knowledge development for entrepreneurs themselves. Development of an entrepreneurial support system and partnerships that support community entrepreneurship and appropriate policies is essential to creating viable community economies. Fostering entrepreneurship includes entrepreneurial practices among social and nonprofits and within educational and governmental organizations and agencies.

Resources exist to develop necessary support systems, communities, and regions. Resources include a wide array of local knowledge, culture, history and tradition, businesses, natural and man-made systems, organizations, and diversity of groups and residents. Building on the basis of local resources is rooted in an asset-based approach.

2. Ultimate goal(s) of this Program

Citizens and decision-makers develop and use the skills, information and tools necessary to engage in public deliberation and problem solving on a wide variety of issues and challenges to create their desired future. Leaders, organizations, and communities demonstrate an increased capacity to engage the citizenry and address community issues effectively by mobilizing the community resources and assets for common purposes and efficacious local decision making and governance. Local organizations, business, and communities sustain engagement and collaborative learning with the university. Best practices of entrepreneurial community development are spread and adopted. Viable and sustainable regional and local communities link rural and metro areas and engage the multiple facets of diversity in the community to build its sustainability.

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2012	20.0	0.0	0.0	0.0
2013	20.0	0.0	0.0	0.0
2014	20.0	0.0	0.0	0.0
2015	20.0	0.0	0.0	0.0
2016	20.0	0.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

We will form planning committees/advisory panels, facilitate participatory visioning and planning workshops, moderate local issues forums, train moderators and conveners for forums and issue framing, hold community meetings and conduct presentations, gather data and use decision support tools to analyze alternatives for the community with citizens and decision makers, work with communities to address a specific need or issue. We will train trainers, provide analysis, training and consultation for local and state government, and assist with organizational development, fund development, board training, and tailoring content to local community need. We will provide counseling and expertise, coaching, and we will assist with engaging Spanish-speaking populations and other diverse groups.

In addition to conducting training and workshops, we will conduct intensive courses (such as the Community Development Academy and local leadership development programs) and conferences (such as the partnering on the Cambio de Colores Conference) to share state of the art knowledge and research and to integrate research with community needs. Work with media and facilitate partnerships to assist in working to meet needs of Spanish-Speaking and other minority populations.

To facilitate entrepreneurship as an economic development strategy, we will work in selected settings (communities and regions in the state) to develop models of excellent entrepreneurial community practice, community economic development and regional economic development strategies.

We will engage with eXtension, partner with other states for training and delivery, and develop

collaborative partnerships with local, state and national organizations for programming and funding (e.g. regional rural development centers, Federal Reserve, state agencies, rural development council, USDA-RD, state economic development organization, etc.). In addition we will engage campus-based faculty (extension and other) with regional extension faculty to work collaboratively and across disciplines to develop and deliver programs that are based on research and best practice while engaging with the community for its development and to inform research and teaching on campus. To the extent possible, we will provide internships for graduate students and class projects that are based in the community, and engage graduate students in evaluation while providing opportunities for research.

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension

Direct Methods	Indirect Methods
<ul style="list-style-type: none"> ● Education Class ● Workshop ● Group Discussion ● One-on-One Intervention ● Demonstrations ● Other 1 (Simulation & Role Play & Leading) ● Other 2 (Retreat/Field Trip) 	<ul style="list-style-type: none"> ● Public Service Announcement ● Newsletters ● TV Media Programs ● Web sites other than eXtension ● Other 1 (Bulletins/manuals/publications) ● Other 2 (Displays)

3. Description of targeted audience

Targeted audience will be all social groups in the community, including low-income, minority, youth, adults, community leaders, local government and policy making groups, and state and local agencies. We will provide no limitation on gender, ethnic or religious diversity, lifestyle choice, etc. Also targeted among adults will be those who are currently serving in a leadership role in an agency, organization, neighborhood, club, community, business or aspire to serve; local and state government officials; and professionals working in community development.

On the collective scale, we will work with organizations, neighborhoods, communities, counties and/or multi-county regions. In particular, we will pay attention to those that have experienced economic downturn, have few other opportunities, and demonstrate a reasonable amount of motivation, desire and commitment to work toward a viable future for their community.

V(G). Planned Program (Outputs)

NIFA no longer requires you to report target numbers for standard output measures in the Plan of Work. However, all institutions will report actual numbers for standard output measures in the Annual Report of Accomplishments and Results. The standard outputs for which you must continue to collect data are:

- Number of contacts
 - Direct Adult Contacts
 - Indirect Adult Contacts
 - Direct Youth Contacts
 - Indirect Youth Contact
 - Number of patents submitted
 - Number of peer reviewed publications
- Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(H). State Defined Outputs

1. Output Measure

- Number of in-depth leadership development programs conducted.
 - Number of other conferences, courses, and workshops held.
 - Number of communities/regions engaged.
 - Number of organizations we assisted.
 - Percent of participants in workshops and training indicating they would recommend the program to others.
 - Mean ranking (Likert scale of 1 to 5, with 5 being highest) of overall value of program by participants in workshops and training.
- Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(I). State Defined Outcome

O. No	Outcome Name
1	Mean response of participants in planning processes (On Likert 5 pt scale with 5 highest) reporting they feel they have an increased voice and opportunity to participate in the community.
2	Average change in mean score of participants' (Likert 5 pt scale with 5 highest) self-reported learning from post-pre-post survey.
3	Number of participants reporting taking on increased, different, or new leadership roles in community.
4	Number of communities/organizations developing or updating a plan.
5	Number of communities reporting engagement in plan/project implementation.
6	Million dollar value of resources generated/leveraged/or saved by communities and organizations.
7	Number of businesses and new organizations started.

Outcome # 1

1. Outcome Target

Mean response of participants in planning processes (On Likert 5 pt scale with 5 highest) reporting they feel they have an increased voice and opportunity to participate in the community.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:3 2013:3 2014:3 2015:3 2016:3

3. Associated Knowledge Area(s)

- 608 - Community Resource Planning and Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 2

1. Outcome Target

Average change in mean score of participants' (Likert 5 pt scale with 5 highest) self-reported learning from post-pre-post survey.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:1 2013:1 2014:1 2015:1 2016:1

3. Associated Knowledge Area(s)

- 608 - Community Resource Planning and Development
- 610 - Domestic Policy Analysis
- 803 - Sociological and Technological Change Affecting Individuals, Families, and Communities
- 805 - Community Institutions, Health, and Social Services
- 806 - Youth Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 3

1. Outcome Target

Number of participants reporting taking on increased, different, or new leadership roles in community.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:265 2013:275 2014:275 2015:275 2016:275

3. Associated Knowledge Area(s)

- 608 - Community Resource Planning and Development
- 803 - Sociological and Technological Change Affecting Individuals, Families, and Communities
- 805 - Community Institutions, Health, and Social Services
- 806 - Youth Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 4

1. Outcome Target

Number of communities/organizations developing or updating a plan.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:25 2013:25 2014:25 2015:25 2016:25

3. Associated Knowledge Area(s)

- 608 - Community Resource Planning and Development
- 805 - Community Institutions, Health, and Social Services
- 806 - Youth Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 5

1. Outcome Target

Number of communities reporting engagement in plan/project implementation.

2. Outcome Type : Change in Action Outcome Measure

2012:25 2013:25 2014:25 2015:25 2016:25

3. Associated Knowledge Area(s)

- 608 - Community Resource Planning and Development
- 805 - Community Institutions, Health, and Social Services
- 806 - Youth Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 6

1. Outcome Target

Million dollar value of resources generated/leveraged/or saved by communities and organizations.

2. Outcome Type : Change in Condition Outcome Measure

2012:8 2013:8 2014:10 2015:12 2016:13

3. Associated Knowledge Area(s)

- 608 - Community Resource Planning and Development
- 803 - Sociological and Technological Change Affecting Individuals, Families, and Communities
- 805 - Community Institutions, Health, and Social Services
- 806 - Youth Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 7

1. Outcome Target

Number of businesses and new organizations started.

2. Outcome Type : Change in Condition Outcome Measure

2012:40 2013:40 2014:40 2015:40 2016:40

3. Associated Knowledge Area(s)

- 608 - Community Resource Planning and Development
- 803 - Sociological and Technological Change Affecting Individuals, Families, and Communities
- 806 - Youth Development

4. Associated Institute Type(s)

- 1862 Extension

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Description

The contemporary arena in which community actions are pursued can seem overwhelmingly complex. For example, community organizations and political subdivisions such as cities, school districts, library boards and counties continually struggle to find qualified residents to serve as council, board and commission members. Other forces include: the devolution of authority for action and service delivery to the community; the double bind created by trying to maintain quality with fewer resources; expectations for sharing power and responsibility; interdependence, diversity, collaboration, and communication; and displacement of the developmental paradigm with the globalization paradigm.

Competing public priorities force citizens to prioritize with which public issues they will engage. Citizens are often discouraged by usual methods of public engagement on difficult issues, which result in polarizing on issues and some public discussion breaking down into shouting matches and reluctance to engage in another process. Further, competing public priorities that impact health care and bipartisan disagreement and conflict can contribute to citizens feeling marginalized even when they offer their input. These dialogues can also get very contentious and end up shouting matches as has been evidenced around the U.S.

The decline in tax revenues for all communities has affected their ability to implement new projects and continue to support others at the same level. The concern about future revenues means that local governments are also trying to maintain some funds to carry over to the next year. For example, the lack of funds by local government has affected the ability of the Community Policy

Analysis Center to provide research-based, decision-support to local governments. The lack of funds may also have discouraged citizens and affected their participation. State government has reduced funding of specific programs that local governments have used. The economic downturn has also affected the resources of non-profit organizations and their ability to implement their programs and to partner with communities. For example, we have observed fluctuations in participation in the Community Development Academy, Cambio de Colores Conference and other workshops, trainings and conferences as a result of changes in the economy. With the downturn, enrollment dropped although need increased.

With term limits and tighter budgets at local and state levels, we realize we may need to adjust decision making education programs. With the increasing number of weather-related disasters, our work fluctuates and some planned programs have to be delayed or cancelled.

Finally the challenge of tracking and evaluating change in a community context itself is sometimes complex, can be time consuming, and relies on voluntary participation.

V(K). Planned Program - Planned Evaluation Studies

Description of Planned Evaluation Studies

Generally, conduct post-pre-post evaluations at the conclusion of the training, course, workshop to determine learning and intent to apply learning. Conduct follow-up evaluation of application within six to twelve months for most such offerings to determine application of learning. In addition, we will continue conducting longer term studies for the Community Development Academy to determine a baseline. Also we will integrate the findings of community impact from an NRI funded study into long-term evaluation of community leadership development programs. We will conduct case studies of regions/communities where resources and in-depth assistance have been invested. And we will monitor changes in communities and organizations over time.

In addition to end of session learning assessments for participants in the adult EXCEL (community leadership program). we will conduct pre- and post-course assessment of individuals to determine changes in personal growth and self-efficacy; community commitment; shared future and purpose, community knowledge, civic engagement and social cohesion.

General data collection for learning and application will follow similar protocols so that data can be aggregated by sub-regions of the state, the state, and multi-state North Central region.

V(A). Planned Program (Summary)

Program # 19

1. Name of the Planned Program

Business Development

2. Brief summary about Planned Program

To grow the Missouri economy and Missouri communities and improve the lives of Missouri citizens by adding to the employment base, generating tax revenues, and growing and establishing businesses.

3. Program existence : Mature (More than five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
602	Business Management, Finance, and Taxation	70%			
603	Market Economics	5%			
604	Marketing and Distribution Practices	5%			
607	Consumer Economics	5%			
608	Community Resource Planning and Development	15%			
	Total	100%			

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

Business Development Program (BDP): Community business support networks are needed throughout Missouri. This is supported through every needs assessment conducted (listed in the assumptions section) by the MU Extension BDP. Success for a new business is dependent on supportive business networks and environments; In 1995, only 8 percent of the nation's employment came from Fortune 500 industrial firms. In the past 10 years, that number has declined. Additionally, while the numbers of adults starting a business each year has remained fairly stable since 1996, there has been a slight increase in recent years as a result of shifts in the economy. For instance, in Missouri, there were about 20,000 more small businesses in 2004 than there were in 2003; According to data from the Kauffman Foundation, one year after pre-business activity begins, only about 20 percent of businesses have successfully started, 47 percent are still in the process of starting and 20 percent have either already gone out of business or have suspended start-up activities. Clearly there is a need for technical assistance

to help prospective business owners and owners of existing firms. Our studies of current customers and clients and existing businesses that are not currently customers and clients indicate the highest priority needs as financial (pricing, obtaining capital [seed, venture, equity, long-term, receivables/customer accounts, financial statements/cash flow, calculating overhead]), management (time management), human resources (finding [employment applications], retaining, motivating, evaluating, interviewing employees), business planning (strategic and annual), and marketing (advertising, market research [identifying new market opportunities and developing marketing plans]); While substantial evidence exists the items listed immediately above constitute high priority subject matter area for startup and existing business owners and managers, evidence also exists there are new opportunities that need to be explored for adoption within the University of Missouri Extension (BDP). These topics are identified through academic research and best practices reports of economic and business development programs in higher education and nonprofit organizations such as family owned businesses, technology commercialization, transfer of technological innovation, intellectual property protection, product development, offering youth programs with the goal of creating a culture of entrepreneurship among youth, and developing infrastructure that enables the BDP service personnel to provide a comprehensive set of services in one location; Effective diagnosis of client needs is important for both counseling and training programs of University of Missouri Extension BDPs. This diagnosis, conducted through multiple methodologies, is essential for the program success. The perspectives of business owners and managers (current clients/customers and individuals not currently customers), extension councils, faculty, service providers, and best practices research and academic research contribute to this understanding and diagnosis of client needs.

2. Scope of the Program

- In-State Extension
- In-State Research
- Integrated Research and Extension

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

The business development program needs and priorities in Missouri are based on a needs assessment process that includes: Studies of extensive data from current counseling and training clients and customers of the business development program. This data includes demographic data, customer satisfaction data, impact/outcome data and learning experiences and preferences data; A study of learning experiences and preferences data from existing business owners and managers not currently clients or customers of the business development program. This data comes from a survey of 10,000 existing businesses and includes demographic data, business needs and learning experiences and preferences; A study of Missouri technology company needs that was conducted via 101 interviews from 1,152 technology companies across Missouri; A review of literature from 130 articles on entrepreneurship in peer-reviewed, scholarly journals in 2004-2005; A review of best practices from higher education and nonprofit organizations engaged in economic or business development programs; Input from Missouri county extension councils in 114 counties. County extension council members identified priority programs that should be addressed in their county by University of Missouri Extension program in the next 3-5 years. They also addressed the actions that should be taken to address the needs, priority audiences, and expected outcomes; A study of business development program faculty and staff designed to determine their priorities among the needs identified in the above studies and identify other priorities and needs they identified through the course of their work; Review and analysis of search results from the business development program website. The search results highlight major areas of interests from individuals that visit the website.

The business development program in Missouri makes the following assumptions related to business owners' needs and practices and effectiveness of University of Missouri Extension business development programs: Business owners are willing and able to implement recommendations of business counselors; A business owner will use the knowledge he or she possesses; Resources exist within the business development program to implement programs; Improving Missouri's economy is an ongoing process of engagement, education, and action by business owners and public policy makers; Economic conditions will positively and adversely affect business success regardless of the actions of the business owner or business faculty; Business owners and prospective business owners are able to obtain capital; The network of support businesses need is available to them; Business owners benefit by using information and analyzing alternatives; Using the resources available through business support services has positive economic benefits for the business; Outcomes are not discreetly short/medium/long term but build upon each other.

2. Ultimate goal(s) of this Program

Increased sales for client firms. Create and retain jobs. Obtain business investments through loans and equity injected into businesses. Start new businesses. Third party endorsements to stakeholders from client firms.

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2012	11.0	0.0	0.0	0.0
2013	11.0	0.0	0.0	0.0
2014	11.0	0.0	0.0	0.0
2015	11.0	0.0	0.0	0.0
2016	11.0	0.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

Business counseling and training.

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	Indirect Methods

- | | |
|---|---|
| <ul style="list-style-type: none">● Education Class● Workshop● Group Discussion● One-on-One Intervention | <ul style="list-style-type: none">● Public Service Announcement● Newsletters● Web sites other than eXtension● Other 1 (Community/state partnerships/net) |
|---|---|

3. Description of targeted audience

Small business owners, managers and their employees. Individuals who want to start a business. Partners, stakeholders and funding agencies, including elected officials.

V(G). Planned Program (Outputs)

NIFA no longer requires you to report target numbers for standard output measures in the Plan of Work. However, all institutions will report actual numbers for standard output measures in the Annual Report of Accomplishments and Results. The standard outputs for which you must continue to collect data are:

- Number of contacts
 - Direct Adult Contacts
 - Indirect Adult Contacts
 - Direct Youth Contacts
 - Indirect Youth Contact
 - Number of patents submitted
 - Number of peer reviewed publications
- Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(H). State Defined Outputs

1. Output Measure

- Number of counseling clients.
 - Training customer satisfaction (scale 1-7 high).
 - Number of applied research projects.
 - Website statistics (in millions).
 - Counseling hours.
 - Counseling customer satisfaction (scale 1-7 high).
 - Training attendees.
 - Training events.
 - Training hours x attendees.
 - Number of counseling sessions.
- Clicking this box affirms you will continue to collect data on these items and report the data in the Annual Report of Accomplishments and Results.

V(I). State Defined Outcome

O. No	Outcome Name
1	Increase in knowledge.
2	Business owners will start or expand a business as appropriate to their business goals.
3	Business owners will make or revise decisions about the type of business or business structure as appropriate to their business goals.
4	Business owners will prepare a business plan as appropriate to their business goals.
5	Business owners will develop financial projections as appropriate to their business goals.
6	Business owners will seek start-up funding as appropriate to their business goals.
7	Business owners will develop management systems as appropriate to their business goals.
8	Business owners will investigate legal and compliance issues for their business as appropriate to their business goals.
9	Business owners will develop a marketing plan as appropriate to their business goals.
10	Business owners will commercialize products as appropriate to their business goals.
11	Business owners will inform stakeholders of the outcome of their work with the University of Missouri Extension Business Development as appropriate to their business goals.
12	Number of jobs created.
13	Dollar amount of sales and contracts (in millions).
14	Dollar amount of business investments, including loans and equity approved loans (in millions).
15	Number of new businesses started.

Outcome # 1

1. Outcome Target

Increase in knowledge.

2. Outcome Type : Change in Knowledge Outcome Measure

2012:1	2013:1	2014:1	2015:1	2016:1
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3. Associated Knowledge Area(s)

- 602 - Business Management, Finance, and Taxation
- 603 - Market Economics
- 604 - Marketing and Distribution Practices
- 607 - Consumer Economics
- 608 - Community Resource Planning and Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 2

1. Outcome Target

Business owners will start or expand a business as appropriate to their business goals.

2. Outcome Type : Change in Action Outcome Measure

2012:0	2013:0	2014:0	2015:0	2016:0
---------------	---------------	---------------	---------------	---------------

3. Associated Knowledge Area(s)

- 602 - Business Management, Finance, and Taxation
- 603 - Market Economics
- 604 - Marketing and Distribution Practices
- 608 - Community Resource Planning and Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 3

1. Outcome Target

Business owners will make or revise decisions about the type of business or business structure as appropriate to their business goals.

2. Outcome Type : Change in Action Outcome Measure

2012:0	2013:0	2014:0	2015:0	2016:0
---------------	---------------	---------------	---------------	---------------

3. Associated Knowledge Area(s)

- 602 - Business Management, Finance, and Taxation
- 603 - Market Economics
- 604 - Marketing and Distribution Practices

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 4

1. Outcome Target

Business owners will prepare a business plan as appropriate to their business goals.

2. Outcome Type : Change in Action Outcome Measure

2012:0	2013:0	2014:0	2015:0	2016:0
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3. Associated Knowledge Area(s)

- 602 - Business Management, Finance, and Taxation
- 603 - Market Economics
- 604 - Marketing and Distribution Practices
- 607 - Consumer Economics
- 608 - Community Resource Planning and Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 5

1. Outcome Target

Business owners will develop financial projections as appropriate to their business goals.

2. Outcome Type : Change in Action Outcome Measure

2012:0 2013:0 2014:0 2015:0 2016:0

3. Associated Knowledge Area(s)

- 602 - Business Management, Finance, and Taxation
- 603 - Market Economics
- 604 - Marketing and Distribution Practices
- 607 - Consumer Economics
- 608 - Community Resource Planning and Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 6

1. Outcome Target

Business owners will seek start-up funding as appropriate to their business goals.

2. Outcome Type : Change in Action Outcome Measure

2012:0 2013:0 2014:0 2015:0 2016:0

3. Associated Knowledge Area(s)

- 602 - Business Management, Finance, and Taxation
- 603 - Market Economics
- 604 - Marketing and Distribution Practices
- 608 - Community Resource Planning and Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 7

1. Outcome Target

Business owners will develop management systems as appropriate to their business goals.

2. Outcome Type : Change in Action Outcome Measure

2012:0 2013:0 2014:0 2015:0 2016:0

3. Associated Knowledge Area(s)

- 602 - Business Management, Finance, and Taxation
- 603 - Market Economics
- 604 - Marketing and Distribution Practices
- 607 - Consumer Economics
- 608 - Community Resource Planning and Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 8

1. Outcome Target

Business owners will investigate legal and compliance issues for their business as appropriate to their business goals.

2. Outcome Type : Change in Action Outcome Measure

2012:0 2013:0 2014:0 2015:0 2016:0

3. Associated Knowledge Area(s)

- 602 - Business Management, Finance, and Taxation
- 603 - Market Economics
- 604 - Marketing and Distribution Practices
- 607 - Consumer Economics
- 608 - Community Resource Planning and Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 9

1. Outcome Target

Business owners will develop a marketing plan as appropriate to their business goals.

2. Outcome Type : Change in Action Outcome Measure

2012:0 2013:0 2014:0 2015:0 2016:0

3. Associated Knowledge Area(s)

- 602 - Business Management, Finance, and Taxation
- 603 - Market Economics
- 604 - Marketing and Distribution Practices
- 607 - Consumer Economics

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 10

1. Outcome Target

Business owners will commercialize products as appropriate to their business goals.

2. Outcome Type : Change in Action Outcome Measure

2012:0 2013:0 2014:0 2015:0 2016:0

3. Associated Knowledge Area(s)

- 602 - Business Management, Finance, and Taxation
- 603 - Market Economics
- 604 - Marketing and Distribution Practices
- 608 - Community Resource Planning and Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 11

1. Outcome Target

Business owners will inform stakeholders of the outcome of their work with the University of Missouri Extension Business Development as appropriate to their business goals.

2. Outcome Type : Change in Action Outcome Measure

2012:25 2013:25 2014:25 2015:25 2016:25

3. Associated Knowledge Area(s)

- 602 - Business Management, Finance, and Taxation
- 603 - Market Economics
- 608 - Community Resource Planning and Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 12

1. Outcome Target

Number of jobs created.

2. Outcome Type : Change in Condition Outcome Measure

2012:125 2013:125 2014:125 2015:125 2016:125

3. Associated Knowledge Area(s)

- 602 - Business Management, Finance, and Taxation
- 603 - Market Economics
- 604 - Marketing and Distribution Practices
- 607 - Consumer Economics
- 608 - Community Resource Planning and Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 13

1. Outcome Target

Dollar amount of sales and contracts (in millions).

2. Outcome Type : Change in Condition Outcome Measure

2012:21 2013:21 2014:21 2015:21 2016:21

3. Associated Knowledge Area(s)

- 602 - Business Management, Finance, and Taxation
- 603 - Market Economics
- 604 - Marketing and Distribution Practices
- 607 - Consumer Economics
- 608 - Community Resource Planning and Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 14

1. Outcome Target

Dollar amount of business investments, including loans and equity approved loans (in millions).

2. Outcome Type : Change in Condition Outcome Measure

2012:5 2013:5 2014:5 2015:5 2016:5

3. Associated Knowledge Area(s)

- 602 - Business Management, Finance, and Taxation
- 603 - Market Economics
- 604 - Marketing and Distribution Practices
- 607 - Consumer Economics
- 608 - Community Resource Planning and Development

4. Associated Institute Type(s)

- 1862 Extension

Outcome # 15

1. Outcome Target

Number of new businesses started.

2. Outcome Type : Change in Condition Outcome Measure

2012:20 2013:20 2014:20 2015:20 2016:20

3. Associated Knowledge Area(s)

- 602 - Business Management, Finance, and Taxation
- 603 - Market Economics
- 604 - Marketing and Distribution Practices
- 607 - Consumer Economics
- 608 - Community Resource Planning and Development

4. Associated Institute Type(s)

- 1862 Extension

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Description

{NO DATA ENTERED}

V(K). Planned Program - Planned Evaluation Studies

Description of Planned Evaluation Studies

{NO DATA ENTERED}