

Missouri

2005-2006

AREERA

Plan of Work

Update

**AREERA Plan of Work – FY2005-2006 Update
Agricultural Experiment Station – University of Missouri
Cooperative Research Program – Lincoln University
University of Missouri Extension – University of Missouri
Cooperative Extension Service – Lincoln University**

Introduction

This Plan of Work Update covers the following units at the University of Missouri (1862) and Lincoln University (1890):

- Agricultural Experiment Station – University of Missouri – Columbia
- Cooperative Research Programs – Lincoln University
- University of Missouri Extension – University of Missouri – Columbia
- Cooperative Extension Service – Lincoln University

Each unit director and appropriate personnel have reviewed the Missouri AREERA Plan of Work for FY2000-2004 (as amended in 2001 and 2002). All units will continue using the existing Missouri POW unless otherwise noted.

References to University of Missouri Extension – University of Missouri-System are changed to University of Missouri Extension – University of Missouri – Columbia. University Outreach and Extension – University of Missouri-System merged into University of Missouri Extension—University of Missouri – Columbia.

1890 Cooperative Research Program -- Lincoln University: The following changes are made to the original Plan of Work.

In the Introduction section, *change* Lincoln University contact information to read:

Dr. Marjorie Campbell
Associate Director, Lincoln University
Cooperative Research Programs
904 Chestnut Street
Room 107 Foster Hall
Jefferson City, Missouri 65102-0029
Telephone: (573)681-5312
Fax: (573) 681-595
E-mail: campbell@lincolnu.edu

Dr. Michael Heard
Lincoln University, 1890 Land-Grant Administrator
900 Chestnut Street
Room 103 Allen Hall
Jefferson city, Missouri 65102-0029
Telephone: (573)681-5109
Fax: (573) 681-5520
E-mail: heardm@lincolnu.edu

Change the Overview section to read:

Lincoln University's Cooperative Research Programs consist of four primary program areas: *Animal Science, Food Science and Human Nutrition, Plant Science and Environmental Science*. Each program area *consists* of a team of research investigators and technicians who work together to achieve the primary objectives of each area. Research projects under this Plan of Work addresses some aspects of the following broad national goals adopted by the National Agricultural Research, Extension, Education, and Economics Advisory Board:

Goal 1: An agricultural system that is highly competitive in the global economy.

Goal 3: A healthy, well-nourished population.

Goal 4: An agricultural system, which protects natural resources and the environment.

The following plan for the transition years of 2004-2006 will continue to address selected key themes under each of the above goal areas. Some of the primary themes are: animal production efficiency; aquaculture; plant production efficiency; human health and nutrition; agricultural and organic waste management; bio-pesticide applications/control; soil quality; and water quality.

The 2-year, estimated budget for this Plan of Work (POW) is based on the current level of federal formula dollars of \$1.9 million in addition to a portion of the required state matching funds for an approximate amount of \$2,450,000. These funds principally support the salary of personnel and the *day-to-day* operations of the research unit including the University farms.

Projected Allocated Resources Cooperative Research Programs

Year	Clerical and Support Personnel (FTE)	Animal Science (FTE)	University Farms (FTE)	Plant Science (FTE)	Food Science and Human Nutrition (FTE)	Env. Science (FTE)	Total FTE	Total Projected Funds
2004-2005	7.0	6	4	5	4.5	8.5	33	\$2,450,000
2005-2006	7.0	6	4	6	5	8.5	34.5	\$2,450,000

1890 Cooperative Extension Service -- Lincoln University: The following changes are made to the original Plan of Work.

Change Overview section to read:

In the over-25-year history of Lincoln University Cooperative Extension (LUCE), one goal continues to serve as the driving force for program development and implementation. That goal is reaching out to hard-to-reach Missouri citizens ... rural and urban residents with limited social and economic resources. A significant sector of the state's population still falls into this under-served group. Lincoln University continues to research, develop, and improve programs with the following focuses: Youth Development, Academic Enrichment, Small and Underserved Farmers, Minority Health and Aging, Social, Economic and Environmental Health of Communities and Families, Improved use of Technology, and Horticulture and Urban Gardening.

Lincoln's familiarity with youth programs within the state of Missouri reflects our ability to respond to changes in priorities, scope and multiple tasks. We strive to meet the expectations of youth and their families, particularly those who are underserved. Through Lincoln University's Cooperative Extension (LUCE) program, the University has implemented a number of youth-based programs for over 20 years that have impacted over thousands of youth in the state of Missouri. An integral part of our youth development programs include programs that specifically focus on academic enrichment.

The number of minority-owned farms has reduced significantly in the past decade. This has resulted in the migration of African Americans to urban America. It has been stated that this is a contributing factor to urban plight. Profitable farming methods by minority farmers, coupled with education about the benefits of a farming lifestyle will help to stem the exodus of minority landowners from farming.

Missouri ranks very high in the nation in the percentage of older adults residing in the state. In addition, minority individuals within this group have a much lower standard of living, and have poor access to quality health care professionals. There is the need to provide necessary education to this audience, to ensure a healthy and productive life.

Extension programs implemented under this plan will integrate social, economic and environmental health concerns of communities and families in urban and rural areas. An integrated approach involving our research and teaching programs will be used to help accomplish the goal of improving and sustaining quality of life issues.

As extensions programs are implemented under this plan we will integrate technology to facilitate workshops and information dissemination when applicable. The increased use of this technology will be measured in terms of cost and time- savings as it relates to travel and reaching a broader audience.

Many of our stakeholders have expressed interest in improving their diets and living environments. To address these issues we will focus on Horticulture and Urban gardening. These programs will train participants to improve their diets by growing nutritious produce with positive impacts on their living environments.

Stakeholder Input

All units have reviewed Stakeholder input for each unit and will continue to utilize the Stakeholder Input from the original Plan of Work, except as noted below:

1890 Cooperative Extension Service -- Lincoln University: The following changes are made to the original Plan of Work.

Change the last sentence in the first paragraph to read:

However, the source of information used in program planning and development are derived from surveys, focus groups, local interest groups, and extension and research staff.

Merit Review Process

All units have reviewed the Merit Review and Scientific Peer View Process. No changes have been made to this section of the Plan of Work.

Multistate Research and Extension Activities

All units have reviewed the Multistate Research and Extension Activities and we will continue operating as stated in the original Plan of Work.

Integrated Research and Extension Activities

All units have reviewed the Integrated Research and Extension Activities section and we will continue to operate as stated in the original Plan of Work.

Goal 1: An Agricultural System that is Highly Competitive in the Global Economy

All units have reviewed the Statements of Issue(s), Performance Goals, Key Program Components, Internal and External Linkages, Target Audiences, Evaluation Framework, Education and Outreach Programs Underway and Impact Statement(s) for Goal 1. We will continue to operate as stated in the original Plan of Work, except as noted below:

1890 Cooperative Research Program -- Lincoln University: The following changes are made to the original Plan of Work.

Replace the *Statement of Issues, Performance Goals* and *Output Indicators* under “Program 1: Animal Science” with the following:

Statement of Issues:

Improving the efficiency of small farms is a critical need for ensuring the survival of small farmers in Missouri and the United States. Limited resource producers in many cases lack economic resources, formal education and/or access to government resources. Farming trends in regards to the past have been for specialization in one livestock species and often a single breed of that species. This has not proven consistently successful because of fluctuating market demand for various species and breeds of livestock. There is a need to develop a farming system that can efficiently raise more than one livestock species under the relatively high densities required for economic profits. Two possible alternatives for improving small farms animal production for profits are aquaculture and small ruminants

Aquaculture: There is tremendous potential for expansion of aquaculture in Missouri. The reasons include: the central location of Missouri within the United States; Missouri is a major producer of feed; and Missouri has adequate land area and water supplies for increasing aquaculture production. There are also fewer regulative restrictions in Missouri than in most states. The major ingredient needed to take full advantage of our natural resources is University research. University research has provided limited information about production of fish in the temperate climate of Missouri.

Based on stakeholder discussions, major problems that need to be addressed by research include: reducing economic losses caused by wildlife depredation; poor water quality; identifying and revising, where possible, state regulations that negatively impact aquaculture; development of

methods for culture of species more suitable to Missouri environmental conditions; identifying alternative feed sources to economically meet nutrient requirements of fish species native to Missouri; handling waste products from aquaculture operations; developing drugs for use in aquaculture; and identifying markets and developing more local processors.

Small Ruminants: Minority farmers are increasing in numbers in the state of Missouri each year. The increase over the past 20 years has been from 12.31% to 16.24% (2001 Census). The increase in this ethnic population preferring lamb and goat kid meat to other meats definitely increases the demand from the consumer market for meat from sheep and goats produced by small farmers.

The biggest problem for the sheep and goats producers in Missouri is the internal parasites and coccidia---the sleeper. The **Hoemonchus contortus**, a barber pole stomach worm causes losses in great numbers if they are not kept in check. A close second is the brown stomach worm **Ostertagia circumcincta** and also **Trichostrongylus spp.** **Hoemonchus contortus** are blood suckers with the result of a very anemic sheep or goat that will die if they are not dewormed. Anthelmintics for deworming sheep and goats are both very costly as some producers deworm in the summer every three weeks. Goats are more susceptible to internal parasites than sheep and need a higher dosage of anthelmintic when deworming. This creates and encourages the possibility of gastrointestinal parasites becoming resistant to commercial anthelmintics. Coccidia reside in the gut at a low level and become problematic when the goats and sheep are stressed. When coccidia become diagnosed at high numbers in the gut of the sheep and goat, the damage is so great that it usually results in stunting of the animals and is irreversible damage to the gut.

The problem of resistance to the present anthelmintics on the market today can result in deworming with no positive effect. This leads to high mortality rates in sheep and goats. Goat and sheep producers are now turning to herbs, spices and other natural ingredients to help keep down internal parasites and coccidia in the gut, lungs and sinuses. There is a need to conduct research with some of these common herbs, spices and natural ingredients to see if there is a more healthy and less costly means of deworming and reducing worms and coccidia in sheep and goats.

Performance Goals:

The goal of this research effort is to investigate the feasibility of an integrated systems approach using traditional farming practices by improving the health of small ruminants and adoption of aquaculture to increase production on small farms in Missouri.

- To increase farm production efficiency through an integrated system that would include:
- Integration of indoor aquaculture systems with other small farming practices
- Improved fish production in outdoor pond systems through increased knowledge of predation, fish diseases, and fish health
- Improved health of small ruminants through natural diet additives of medicinal herbs and/or spices

Output Indicators:

- Data on ways to integrate aquaculture with traditional small farming practices
- Development of an improved aquaculture production system
- Decreased predation on fish at aquaculture farms.
- An increase in the number of aquaculture operations in Missouri.
- Alternative ways to improve the health of small ruminants through new medicinal herbs/spices applications
- The number of published scholarly articles and professional presentations

- The number of small farmers that participate in the research and demonstrate improved production and/or economic gains
- The number of farm producers that participate in demonstrations and workshops.
- The number of farm producers demonstrating increased awareness and knowledge of alternative animal production enterprises.
- The number of producers demonstrating increased awareness and knowledge of ways to improve aquaculture production.
- The number of extramural funded grants in support of animal science research.

Replace the *Statement of Issue, Performance Goals and Output Indicators* under “Program 2: Plant Science” with the following:

Statement of Issues:

Very little research data has been collected on sweet potato, medicinal and herbal crops in Missouri. Direct discussions with clientele in Southeast Missouri have led us to believe that small farmers with limited resources are very interested in alternative crops for improving their income. There is a lack of local research on state sweet potato production or on alternative crops for small farmers.

There is a need to develop cultural management systems to improve adaptation of potato and other alternative crops in Missouri. Assessment of the economic implications of adopting new cultivation practices and alternative crops by small farmers is also needed.

Performance Goals:

The overall goal of this program is to investigate modified and alternative crop development, adaptation and production in Missouri. Performance goals will include:

- Determination of the growth of selected commercial sweet potato varieties when treated with different rates of nitrogen fertilizer and variable irrigation rates.
- Determination of new alternative crops that can successfully be cultivated by small farmers in Missouri.
- Determination of chemical factors that will promote the development and successful production of alternative crops.
- Determination of the economic implications that result from the cultivation and management of modified and alternative crops by small farmers in Missouri.

Output Indicators:

- Identification of the sweet potato varieties that grows best under fertilization and irrigation practices most likely to be adopted by small farmers in Missouri.
- Identification of alternative crops for small farmer cultivation under Missouri environmental conditions.
- The number of small farmers adopting new sweet potato cultivars or alternative crops
- The number of research reports, articles published in referred journals, professional presentations, technical reports and workshops for producers.
- The number of workshops presented to farmers on alternative crops.
- Increased awareness and knowledge among small farmers of alternative crops
- Publication of information on the economic impact or implications of adopting modified and alternative crops by small farmers in Missouri.
- Improved economic profits for farmers adopting alternative crops.
- The number of extramural funded grants in support of plant science research.

1890 Cooperative Extension Service -- Lincoln University: The following changes are made to the original Plan of Work:

Delete the entire Horticulture Production (Primarily Fruits and Vegetables) section.

Program Durations for all institutions under Goal 1 are long term.

Allocated Resources

1890 Cooperative Extension Service -- Lincoln University: The following changes are made to the original Plan of Work:

Small Farm Family Section:

Change the first sentence to read:

LUCE budgets approximately \$300,000 annually to this program.

Change the existing allocation table for FY2004 to read 20 FTE and \$300,000.

Add the following sentence after the existing allocation table:

Subsequent years' funding is dependent on our ability to meet the state match requirement.

Sheep and Goat Production Section:

Change the existing allocation table for FY2004 to read 1.0 FTE and \$80,000.

Unit/Institution	Year	FTE	Dollars
1862 Agricultural Experiment Station – University of Missouri-Columbia	2005	60	\$4,500,000
	2006	60	\$4,500,000
1890 Cooperative Research Programs – Lincoln University *	2005	33 *	* \$2,450,000
	2006	34.5 *	* \$2,450,000
1862 University of Missouri Extension – University of Missouri-Columbia	2005	115	\$7,588,850
	2006	115	\$7,588,850
1890 Cooperative Extension Service – Lincoln University	2005	26.5	** \$571,000
	2006	26.5	** \$571,000

**The FTE and Dollars are for Goals 1, 3 and 4 – Lincoln University Cooperative Research did not divide the FTEs and Dollar amounts by individual Goal.*

*** FY2005 and FY2006 years' funding is dependent on our ability to meet the state match requirement for Small Farm family Program.. Estimated using FY2004 amount but this will change based on our ability to meet the state match requirement.*

Detailed Allocation Resource table for Goal 1, 1862 University of Missouri Extension – University of Missouri-Columbia:

Program Area	FTE		Dollars	
	2005	2006	2005	2006
Integrated Cropping Systems	46	46	\$3,035,540	\$3,035,540
Forages for the 21 st Century	23	23	\$1,517,770	\$1,517,770
Profitable and Sustainable Livestock Production Utilization Systems	46	46	\$3,035,540	\$3,035,540
Total	115	115	\$7,588,850	\$7,588,850

Detailed Allocation Resource table for Goal 1, 1890 Cooperative Extension Service – Lincoln University:

Program Area	FTE		Dollars	
	2005	2006	2005	2006
Small Farm Family	20	20	** \$300,000	** \$300,000
Sheep and Goat Production	1	1	\$40,000	\$40,000
Value-Added Fiber Program	1	1	\$85,000	\$85,000
Market Development for Missouri Products	0.5	0.5	\$25,000	\$25,000
Socially Disadvantaged Farmer Program	4	4	\$121,000	\$121,000
Total	26.5	26.5	\$571,000	\$571,000

*** FY2005 and FY2006 years' funding is dependent on our ability to meet the state match requirement. Estimated using FY2004 amount but this will change based on our ability to meet the state match requirement.*

Goal 2: A Safe and Secure Food and Fiber System

All units have reviewed the Statements of Issue(s), Performance Goals, Key Program Components, Internal and External Linkages, Target Audiences, Evaluation Framework, Education and Outreach Programs Underway and Impact Statement(s) for Goal 2. No changes have been made to this section of the Plan of Work.

Program Durations for all institutions under Goal 2 are long term.

Allocated Resources

Unit/Institution	Year	FTE	Dollars
1862 Agricultural Experiment Station – University of Missouri-Columbia	2005	2	\$144,000
	2006	2	\$144,000
1890 Cooperative Research Programs – Lincoln University	2005	0	0
	2006	0	0
1862 University of Missouri Extension – University of Missouri-Columbia	2005	0	0
	2006	0	0

1890 Cooperative Extension Service – Lincoln University	2005	1	\$25,000
	2006	1	\$25,000

Goal 3: A Healthy, Well-Nourished Population

All units have reviewed the Statements of Issue(s), Performance Goals, Key Program Components, Internal and External Linkages, Target Audiences, Evaluation Framework, Education and Outreach Programs Underway and Impact Statement(s) for Goal 3. A few changes to this section are noted below:

1890 Cooperative Research Program -- Lincoln University: The following changes are made to the original Plan of Work:

Replace the Statement of Issue, Performance Goals and Output Indicators with the following:

Statement of Issues:

Adequate nutrition is essential for the health and well-being of humans. Dietary factors and exercise are associated with risk factors for coronary heart disease, obesity, hypertension, stroke, some types of cancer, non-insulin-dependent diabetes mellitus and arteriosclerosis. Epidemiological studies suggest that a disproportionate consumption of foods containing high levels of fat at the expense of foods containing complex carbohydrates, fiber and trace essential nutrients are correlated with chronic diseases described above.

Obesity is a serious nutritional problem that exists in the United States and other developed countries. Epidemiological surveys indicate that the prevalence of overweight and obesity has increased dramatically in the United States. Overweight is particularly prevalent in minority populations, especially among minority women. Increasing concern over obesity in children and adolescents is a growing concern also. Recent research data from various studies indicate a substantial increase in the number of overweight and obese individuals during the last 20 years. The relationship between diet, obesity and chronic diseases in children, adolescents and African-Americans needs to be explored. There is a need to determine if directed nutritional education and physical exercise can improve health and reduce obesity in the targeted populations in Missouri.

Performance Goals:

The overall goal is to determine the role of diet and physical exercise in the development and prevention of cardiovascular diseases in regards to specific levels of indicator compounds in the blood. Educational and exercise programs will be developed to help address overweight and obesity problems in our targeted populations.

- Determination of the effects of nutrition education and exercise on improvement of eating habits and body mass index in children.
- Determination of the effects of race and obesity on risk factors of cardiovascular diseases such as high blood pressure, plasma leptin and CRP levels, insulin resistance and lipid profiles.
- Determination of the effects of body weight reduction on cardiovascular risk factors in African American women.
- Determination of the effects of diet energy levels and exercise on energy balance, plasma leptin and CRP levels, and their association with risk factors of cardiovascular disease in diet-induced obese rats.

Output Indicators:

- Number of program participants participating in educational and exercise programs and showing improved weight and health conditions
- Number of participants in program that make changes to healthy eating practices and show improved levels of blood indicators
- Number of individuals improving their nutrition and lifestyles to help prevent chronic diseases as a result of workshop attendance and participation.
- Number of extramural funded grants in support of food science and human nutrition research.
- The number of research reports, articles published in referred journals, professional presentations, and technical reports.

Add “Children and adolescents” to Target Audiences section.

1862 University of Missouri Extension – University of Missouri – Columbia: There are a few amendments in the 1862 University of Missouri Extension – University of Missouri-Columbia section in Goal 3. These amendments do not alter any of the key sections (i.e., performance goals, program components, etc.) mentioned above; these changes do not affect the purpose, statement, outcomes, etc. of the existing POW.

All references to “A Healthy New You” should change to “Health for Every Body”.

All references to “Show-Me-Body Walk” should change to “Food Power”.

Delete references to “Nutrition Communication Center.

Change the second bullet (“Show-Me Body Walk”) under Performance Goal 1; Key Program Components to read:

Food Power is a program that includes a 40x40 traveling exhibit, classroom activities, and family take-home activities. The program provides classroom materials to elementary teachers, and an action-oriented educational experience for their students. As they travel through the exhibit, the students learn about how their food is grown, processed, and used for energy in their body. They also learn the importance of regular physical activity and proper hand washing techniques. Teachers are also provided with training to help improve nutrition and increase physical activity throughout their daily curriculum.

Delete the third bullet regarding “Nutrition Communications Center” under Performance Goal 1, Key Program Components.

Change Internal and External Linkages under Performance Goal 1 to read:

Linkages vary, to some extent, depending on the program. The team involved in developing the Health for Every Body curriculum includes HES regional and state specialists, the health education specialist (School of Medicine), and the nutrition and health specialist from Lincoln University. The University of Missouri HES Extension Food and Nutrition Program serves as program manager and regional HES and 4-H youth development specialists work with local schools and parent volunteers in setting up the exhibit in the schools. Existing linkages through Nutritional Sciences Extension include the School of Medicine, Dept. of Rural Sociology, School of Journalism, Dept.

of Dietetics, and the Dept. of Biological Sciences, all at the University of Missouri-Columbia (MU). Other partners include the Missouri Department of Health, Lincoln University, and state extension offices nationwide (via web and listserv communication).

Change Target Audiences under Performance Goal 1 to read:

The target audiences for Health for Every Body include adults who have been unsuccessful with dieting and want to reduce health risk factors through a different approach to healthy eating and to being physically healthy. The program is also appropriate for those interested in learning basic principles related to healthy eating and incorporating physical activity into their daily lives. Target audiences include low-income (Food Stamp eligible) families. One-on-One for Kids reaches school-age children as well as coaches.

Change Program Duration under Performance Goal 1 to read:

Health for Every Body is a long-term effort (five or more years). Body Walk and the Nutrition One-on One for Kids will continue as a long term program

1890 Cooperative Extension Service – Lincoln University: The following changes are made to the original Plan of Work:

Change Goal 2: A Healthy, Well-Nourished Population to read: Goal 3: A Healthy, Well-Nourished Population

In the section on “Missouri Center on Minority Health and Aging (MCMHA) Program”:

Change the title (Missouri Center on Minority Health and Aging (MCMHA) Program) to Paula J. Carter Center on Minority Health and Aging (PJCCMHA) Program.

Change the Statement of Issues, Performance Goals, Key Program Components, Internal and External Linkages, Target Audience; Program Duration, Allocated Resources, and Summary Statement to read:

Statement of Issues:

The Missouri Department of Health and Senior Services reports that Missouri ranks 14th in the nation in the percent of people age 65 and over. By 2005, the senior population is projected to represent 20 percent of the state population. Minority seniors, 89 percent of whom are African-Americans, have significantly higher rates of heart disease, hypertension, stroke, diabetes, and cancer. Many face challenges in healthcare and community resources.

Research has substantially documented that older minority people, by almost all economic, health and social indicators are poorer and less healthy, have poorer housing, fewer options in personal and public transportation, and significantly more limited access to health professionals and to community-based programs and services.

The mission of the Paula J. Carter Center on Minority Health and Aging is to provide leadership in addressing the health, social, and psychological needs of Missouri’s minority, and disabled, underserved elderly populations through education, applied research, policy analysis, and the use of technology as a strategic tool.

Performance Goals:

For each year 2005-2010, there will be five ongoing PJCCMHA projects implemented. The average number of individuals reached through these programs per year will be at least 500. Those participating in PJCCMHA projects will gain knowledge and skills that will enable them to improve their social, health, and psychological needs.

Output indicators will include the number of persons who complete the programs, as well as pre-and post-evaluations. Outcome indicators will vary by project but will include number of individuals adopting strategies for healthy behaviors.

Collaboration with the Missouri Department of Health and Senior Services will allow us to gather outcome data by zip code and race on incidence and mortality for particular diseases in which minorities have disparate rates.

Key Program Components:

The key components of the PJCCMHA are: (a) the Annual Missouri Institute on Minority Aging (MIMA); (b) IAHMUMS-Improving Access to Healthcare for Missouri’s Underserved Minority Seniors; (c) Quarterly Healthy Aging Newsletter; (d) Quarterly Minority Health News Fact Sheet; (e) We provide reports based on analysis of existing databases related to minority health and aging.

Internal and External Linkages:

The PJCCMHA involves collaborative arrangements and partnerships agreements with state, private, local organizations, and university/academic partners. These partners provide assistance with planning, resources for training, financial support, research to the PJCCMHA and its projects.

Target Audience

The PJCCMHA serves African Americans, Hispanic Americans, Native Americans, Asian Americans, and underserved populations in Missouri. Our target areas are the urban areas of St. Louis, Kansas City, and the rural areas of Missouri.

Program Duration:

The PJCCMHA is a long term project that runs on a fiscal year of July1 to June 30.

Allocated Resources:

FY	FTE	Dollars
2005	3.5	\$165,000
2006	3.5	\$165,000

Summary Statement:

Efforts are underway to implement a recent grant award from the Missouri Foundation for Health. We are in the process of implementing a new project: Improving Access to Healthcare for Missouri’s Underserved Minority Seniors. Trained individuals in nutrition education will work with program participants to help them gain skills to achieve life-long improved health and fitness for individuals 50 plus.

In the section on “Home Horticulture”:

Change the title (Home Horticulture) to read Home and Community Horticulture.

Change Performance Goals to read as follows:

Output indicators will be the number of participants who develop and implement a home or community horticulture plan. Outcome indicators will include a site visit to access the effectiveness of improved home or community grounds.

Change Key Programs to read as follows:

Horticultural programming that will include teaching, research applications (soil and plant analysis), demonstrations and evaluations.

Delete the Small Farm Families and Urban Gardening section in its entirety.

Program Durations for all institutions under Goal 3 are long term.

Allocated Resources

Unit/Institution	Year	FTE	Dollars
1862 Agricultural Experiment Station – University of Missouri-Columbia	2005	2	\$218,000
	2006	2	\$218,000
1890 Cooperative Research Programs – Lincoln University *	2005	35.5 *	* \$2,450,000
	2006	35.5 *	* \$2,450,000
1862 University of Missouri Extension – University of Missouri-Columbia	2005	22	\$1,449,850
	2006	22	\$1,449,850
1890 Cooperative Extension Service – Lincoln University	2005	6	\$290,000
	2006	6	\$290,000

**The FTE and Dollars are for Goals 1, 3 and 4 – Lincoln University Cooperative Research did not divide the FTEs and Dollar amounts by individual Goal.*

Detailed Allocation Resource table for Goal 3, 1862 University of Missouri Extension – University of Missouri-Columbia:

Program Area	FTE		Dollars	
	2005	2006	2005	2006
Performance Goal 1 – Nutrition and Dietary Practices	15	15	\$988,550	\$988,550
Performance Goal 2 – Reduce food-borne illnesses	2	2	\$131,800	\$131,800
Performance Goal 3 – Consumer Health Knowledge/Practices	5	5	\$329,500	\$329,500
Total	22	22	\$1,449,850	\$1,449,850

Detailed Allocation Resource table for Goal 3, 1890 Cooperative Extension Service – Lincoln University:

Program Area	FTE		Dollars	
	2005	2006	2005	2006

A Healthier, More Well-Nourished Population	1.5	1.5	\$70,000	\$70,000
Paula J. Carter Center on Minority Health and Aging (PJCCMHA) Program	3.5	3.5	\$165,000	\$165,000
Home and Community Horticulture	1	1	\$55,000	\$55,000
Total	6	6	\$290,000	\$290,000

Goal 4: An Agricultural System which Protects Natural Resources and the Environment

All units have reviewed the Statements of Issue(s), Performance Goals, Key Program Components, Internal and External Linkages, Target Audiences, Evaluation Framework, Education and Outreach Programs Underway and Impact Statement(s) for Goal 4, and we will continue to operate as stated in the original Plan of Work, except as noted below:

1890 Cooperative Research Program -- Lincoln University

Change the first paragraph in *Statement of Issues* section to read:

Environmental quality is a major concern for people throughout the world. Agricultural practices to meet human demand for food and other commodities have historically and will continue to impact the environment. Issues concerned with organic and inorganic waste disposal resulting from food and commodity production and other human activities will always need addressing. The production of synthetic pesticides such as DDT have been highly successful in controlling target pests but at a tremendous cost to environmental integrity. Many agricultural chemicals are persistent in soils and some can leach into ground water or run off to surface water. Consequently, the air we breathe, the water we drink and bathe in, the soil in which our crops are grown, and the habitats for populations of animals and plants are contaminated with a variety of synthetic chemicals. Such contamination is especially acute in agricultural areas where soils, ground water and surface waters are contaminated with a variety of chemicals and their degradation products. Even if these chemicals are present in small concentrations in the environment they are subject to biomagnification and bioaccumulation in the food chain and may reach levels that have toxic and deleterious effects on livestock, wildlife and humans

Change in the “Performance Goal Section,” the introductory paragraph and first two bullets to read:

The general goals of this program are (1) to investigate ways to protect the environment by looking at composting, and the development of natural pesticides and (2) assessment of environmental samples from agricultural communities for organic and inorganic contaminants.

- Protection of the environment through the promotion of in-vessel composting of organic waste.
- Protection of the environment through the development of natural pesticides

Change in the “Output Indicators section,” the first three bullets to read:

- Data on optimum in-vessel composter conditions for specific organic food waste loading and biodegradation.
- Identification and isolation of the evolving microbial consortia found in in-vessel composting.
- The number of Missouri stakeholders adopting the in-vessel composting model.

Add “Jefferson City Community” to Target Audiences section.

Program Durations for all institutions under Goal 4 are long term.

Allocated Resources

Unit/Institution	Year	FTE	Dollars
1862 Agricultural Experiment Station – University of Missouri-Columbia	2005	21.4	\$1,400,000
	2006	21.4	\$1,400,000
1890 Cooperative Research Programs – Lincoln University *	2005	35.5 *	* \$2,450,000
	2006	35.5 *	* \$2,450,000
1862 University of Missouri Extension – University of Missouri – Columbia	2005	37	\$2,441,630
	2006	37	\$2,441,630
1890 Cooperative Extension Service – Lincoln University	2005	0	0
	2006	0	0

**The FTE and Dollars are for Goals 1, 3 and 4 – Lincoln University Cooperative Research did not divide the FTEs and Dollar amounts by individual Goal.*

Detailed Allocation Resource table for Goal 4, 1862 University of Missouri Extension – University of Missouri-Columbia:

Program Area	FTE		Dollars	
	2005	2006	2005	2006
Protecting Missouri Watersheds	7	7	\$461,930	\$461,930
Animal Waste Management	15	15	\$989,850	\$989,850
Nutrient Management on Missouri Cropland	15	15	\$989,850	\$989,850
Total	37	37	\$2,441,630	\$2,441,630

Goal 5: Enhanced Economic Opportunity and Quality of Life for Americans

All units have reviewed the Statements of Issue(s), Performance Goals, Key Program Components, Internal and External Linkages, Target Audiences, Evaluation Framework, Education and Outreach Programs Underway and Impact Statement(s) for Goal 5 and we will continue to operate as stated in the original Plan of Work, except as noted below:

1862 University of Missouri Extension – University of Missouri – Columbia: There are a few amendments in the 1862 University of Missouri Extension – University of Missouri-Columbia section in

Goal 5. These amendments do not alter any of the key sections (i.e., performance goals, program components, etc.) mentioned above.

Change all references to “Women’s Financial Management Program (WFIP)” to “Women’s Financial Educational Series”.

Change Program Duration under Goal 5, Child Care Program to read:

This program is long term and will continue through 2006.

1890 Cooperative Extension Service – Lincoln University: The following changes are made to the original Plan of Work:

Change the first sentence under Performance Goals in the Human Resource Development section to read:

For each year, 2005-2006, Lincoln University will be responsible, directly or indirectly, for 125 families participating in Parenting African American and Other Minority Children Programming.

Delete entire section titled: To Enhance Economic Opportunities and the Quality of Life Among Families and Communities

Delete entire section titled: Community and Economic Development

Change title from Youth Development to: Youth Development and Academic Enrichment

Change the first bulleted item under Statement of Issues in the Youth Development and Academic Enrichment section to read:

- Youth development is a primary national concern. Due to the absence of quality education and family and community support in many underserved areas of the state, poor life skills are persistent issues. The consequences of such situations are far reaching in their societal impacts. For example, many young people in these underserved communities do not receive the proper training or exposure needed to matriculate effectively in communities outside the ones they are currently in. Many are not skilled enough to earn sufficient living wages and take advantage of educational opportunities.

Change the Key Program Components in the Youth Development and Academic Enrichment section to read:

- The key components of the program include, and not limited to, the following: (a) continuation of higher educational pursuits (b) increased individual marketability (c) developing better citizenship (d) increased family and community awareness (e) increased youth involvement in positive school and community activities (f) improved individual development (g) leadership and professional development

Program Durations for all institutions under Goal 5 are long term.

Allocated Resources

Unit/Institution	Year	FTE	Dollars
1862 Agricultural Experiment Station –	2005	9.5	\$1,380,000

University of Missouri-Columbia	2006	9.5	\$1,380,000
1890 Cooperative Research Programs – Lincoln University	2005	0	0
	2006	0	0
1862 University of Missouri Extension – University of Missouri-Columbia	2005	86	\$5,675,140
	2006	86	\$5,675,140
1890 Cooperative Extension Service – Lincoln University	2005	17	\$1,055,000
	2006	21	\$1,255,000

Detailed Allocation Resource table for Goal 5, 1862 University of Missouri Extension – University of Missouri-Columbia:

Program Area	FTE		Dollars	
	2005	2006	2005	2006
MO Youth & Families, Affordable Housing, Family Financial Management, Child Care, Community Development, Building Strong Families, Parent Education, Family Strengths, and Older Adults	40	40	\$2,639,600	\$2,639,600
4-H Youth Development, Building Character, School Age Child Care, Science & Technology, and Volunteer Leadership	46	46	\$3,035,540	\$3,035,540
Total	86	86	\$5,675,140	\$5,675,140

Detailed Allocation Resource table for Goal 5, 1890 Cooperative Extension Service – Lincoln University:

Program Area	FTE		Dollars	
	2005	2006	2005	2006
Human Resource Development	1	1	\$55,000	\$55,000
Youth Development and Academic Enrichment	16	20	\$1,000,000	\$1,200,000
Total	17	21	\$1,055,000	\$1,255,000

**U.S. Department of Agriculture
 Cooperative State Research, Education, and Extension Service
 Supplement to the Annual Report of Accomplishments and Results
 Multistate Extension Activities and Integrated Activities
 (Attach Brief Summaries)**

Institution University of Missouri
State Missouri

Check one: **Multistate Extension Activities**
 Integrated Activities (Hatch Act Funds).
 Integrated Activities (Smith-Lever Act Funds)

Estimated Costs

Title of Planned Program/Activity	FY 2005	FY 2006
Goal 1 (3) Livestock Systems	\$ 10,823	<u>\$ 10,823</u>
Goal 3 Nutrition and Health	<u>\$ 18,798</u>	<u>\$ 18,798</u>
Goal 4 (2) Animal Waste Mgmt	<u>\$ 74,051</u>	<u>\$ 74,051</u>
Goal 5 (9) 4-H Youth	<u>\$258,609</u>	<u>\$258,609</u>
Goal 5 (12) Leadership Development	<u>\$201,647</u>	<u>\$201,647</u>
Goal 5 Adolescents at Risk	<u>\$ 5,696</u>	<u>\$ 5,696</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
Total	<u>\$569,623</u>	<u>\$569,623</u>

/s/ Thomas A. Henderson
Director

03/19/04
Date

Appendix C

U.S. Department of Agriculture
Cooperative State Research, Education, and Extension Service
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Multistate Extension Activities and Integrated Activities
(Attach Brief Summaries)

Institution University of Missouri
State Missouri

Check one: **Multistate Extension Activities**
 Integrated Activities (Hatch Act Funds)
 Integrated Activities (Smith-Lever Act Funds)

Estimated Costs

Title of Planned Program/Activity	FY 2005	FY 2006
Goal 1 (A) Integrated Cropping Systems	<u>\$448,937</u>	<u>\$448,937</u>
Goal 1 (B) Forages and Livestock	<u>\$134,914</u>	<u>\$134,914</u>
Goal 3 Improving Human Nutrition and Health	<u>\$ 7,754</u>	<u>\$ 7,754</u>
Goal 4 Watershed Resource Education	<u>\$ 53,500</u>	<u>\$ 53,500</u>
Goal4 (B) Animal Waste Management	<u>\$130,262</u>	<u>\$130,262</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
Total	<u>\$775,367</u>	<u>\$775,367</u>

/s/ Thomas A. Henderson
Director

03/19/04
Date

Appendix C

**U.S. Department of Agriculture
 Cooperative State Research, Education, and Extension Service
 Supplement to the Annual Report of Accomplishments and Results
 Multistate Extension Activities and Integrated Activities
 (Attach Brief Summaries)**

Institution University of Missouri
State Missouri

Check one: **Multistate Extension Activities**
 Integrated Activities (Hatch Act Funds)
 Integrated Activities (Smith-Lever Act Funds)

Estimated Costs

Title of Planned Program/Activity	FY 2005	FY 2006
Goal 1 Integrated Cropping Systems	<u>\$146,052</u>	<u>\$146,052</u>
Goal 1 Forages and Livestock	<u>\$114,046</u>	<u>\$114,046</u>
Goal 3 Human Nutrition and Health	<u>\$ 83,824</u>	<u>\$ 83,824</u>
Goal 4 Water Quality	<u>\$ 35,439</u>	<u>\$ 35,439</u>
Goal4 Animal Waste Management	<u>\$ 39,470</u>	<u>\$ 39,470</u>
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Total	<u>\$418,830</u>	<u>\$418,830</u>

/s/ John Gardner
Director

03/19/04
Date