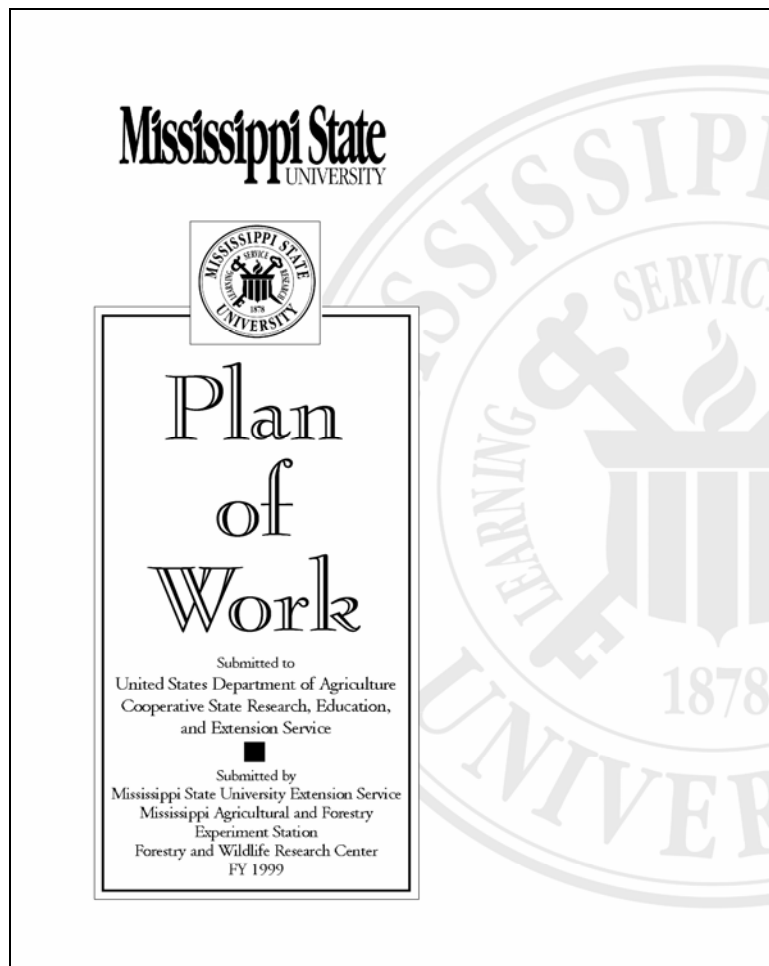


FY 2005-2006 Plan of Work Update

Submitted to

**United States Department of Agriculture
Cooperative States Research, Education, and Extension Service**



**Mississippi State University Extension Service
Mississippi Agricultural and Forestry Experiment Station
Forest and Wildlife Research Center**

This document provides an update for the 1999-2004 Plan of Work submitted jointly by the Mississippi State University Extension Service (MSU-ES), the Mississippi Agricultural and Forestry Experiment Station (MAFES), and the Forest and Wildlife Research Center (FWRC). Included are an updated listing of priority research and extension programs by national goal and priority program area and additional multi-state extension efforts that have been developed since the submission of the 5-Year Plan of Work.

Research and Extension Priority Programs by National Goal and Priority Program Area

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

Agronomic Crops

- Production and Management Systems for Corn and Small Grains (IR&E)
- Production and Management Systems for Cotton (IR&E)
- Harvesting for Agronomic Crops (IR&E)
- Irrigation of Agronomic Crops (IR&E)
- Production and Management Systems for Rice (IR&E)
- Production and Management Systems for Soybeans and Peanuts (IR&E)
- Soil/Fertility/Fertilizers for Agronomic Crops (IR&E)
- Variety Evaluation Selection (IR&E)
- Genetics and Variety Development (MAFES)
- Weed Control (IR&E)

Animal Science/Forages

- Beef Production and Management (IR&E)
- Dairy Production and Management (IR&E)
- Swine Production and Management (IR&E)
- Forage Production (IR&E)
- Beef and Forage Genetic Improvement (MAFES)

Aquaculture

- Catfish Production and Management (IR&E)
- Crawfish Production and Management (IR&E)
- Shrimp/Prawn Production and Management (IR&E)
- Fish Behavior (MAFES)
- Fish Health (MAFES)
- Harvest Technology (MAFES)
- Nutrition (MAFES)
- Water Quality (MAFES)

Enterprise and Community Development

- Food and Food Products (MSU-ES)

IR&E = Integrated Research and Extension; MAFES = Mississippi Agricultural and Forestry Experiment Station; MSU-ES = Mississippi State University Extension Service; FWRC = Forest and Wildlife Research Center

- Forest Products (IR&E)

Forestry

- Forest Management (IR&E)
- Logger Education (IR&E)
- Timber Marketing (IR&E)

Horticulture

- Commercial Nursery/Landscape Production (IR&E)
- Fruit Production (IR&E)
- Turf Production (IR&E)
- Vegetable Production (IR&E)

Poultry

- Breeder Management (IR&E)
- Broiler Management (IR&E)
- Hatchery Management (IR&E)
- Reducing Malodor and Pathogens (MAFES)
- Lipoproteins and Egg Mycoplasma (MAFES)
- Fertility in Broiler Breeders (MAFES)
- Cocci Vaccine Development (MAFES)

Risk/Farm Management

- Agriculture and Natural Resources/Environmental Programs and Regulations (IR&E)
- Marketing (IR&E)
- Risk Management (IR&E)

Goal 2: A safe and secure food and fiber system.

Agronomic Crops

- Safety (IR&E)

Nutrition and Food Safety

- Basic Foods (IR&E)
- Food Preservation (IR&E)
- Food Safety (IR&E)

Aquaculture

- Catfish Food Quality and Safety (MAFES)

Goal 3: A healthy, well-nourished population.

Health

- Health and Safety (IR&E)
- Health Career Development (MSU-ES)
- Coalitions/Community Partnerships (IR&E)
- Mississippi Homemaker Education Volunteers (MSU-ES)

Nutrition and Food Safety

- Human Nutrition (IR&E)
- Nutrition Related Disease (IR&E)
- Expanded Food and Nutrition Program (MSU-ES)
- Family Nutrition Program (MSU-ES)

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

Agronomic Crops

- Integrated Pest Management (IR&E)

Aquaculture

- Game-Fish Culture (IR&E)

Environment/Nutrient Management

- Animal Waste Management (IR&E)
- Soil Management (IR&E)
- Water Quality (IR&E)
- Environmental Stewardship (MSU-ES)

Horticulture

- Integrated Pest Management (IR&E)

Wildlife/Fisheries

- Wildlife Management (IR&E)
- Fisheries Management (IR&E)
- Ecology and Management of Sustainable Resources (FWRC)
- Ecosystem Management and Restoration (FWRC)

Goal 5: Enhanced economic opportunity and quality of life
for Americans.

4-H Youth Development

- Animal Handling and Care (MSU-ES)
- Children, Youth, and Families at Risk (MSU-ES)
- Citizenship (MSU-ES)
- Communication/Leadership (MSU-ES)
- Consumer and Family Science (MSU-ES)
- Environmental Education (MSU-ES)
- Healthy Lifestyle Education (MSU-ES)
- Plant Care (MSU-ES)
- Science and Technology (MSU-ES)
- Volunteer Development (MSU-ES)

Child & Family Development

- Children, Youth, and Families at Risk (IR&E)
- Child Care Giver Training (MSU-ES)
- Family Life Issues (MSU-ES)
- Master Family Life Educators (MSU-ES)
- Nurturing Homes Initiative (MSU-ES)
- Parenting Education (MSU-ES)

Enterprise and Community Development

- Business Development (MSU-ES)
- Community/Economic Development (IR&E)
- Governmental Training (MSU-ES)

Family Resource Management

- Termites/Structural Pests (IR&E)
- Children, Youth, and Families at Risk (IR&E)
- Consumer Education (MSU-ES)
- Family Financial Management (MSU-ES)

Horticulture

- Ornamental Plant Care (IR&E)
- Master Gardener (MSU-ES)

Leadership Development

- Leadership Skills Development (MSU-ES)
- Master Clothing Volunteers (MSU-ES)
- Mississippi Homemaker Volunteers (MSU-ES)

Wildlife/Fisheries

- Socio-Economic Investigations of Fish and Wildlife (MAFES)

Additions to Multi-State Extension Programs for 2005-2006

Tri-state Extension Coalition Workforce Preparedness Program

Situation and Need

Workforce preparation has become a major concern in our society. Employers are very concerned about young people who are unprepared and untrained for the workforce. Changes in technology and jobs make it hard for parents and teachers to help prepare young people for a workforce that is so different from the one the adults entered years ago.

In the Delta, the problem is especially acute. Job options are limited, and youth there often grow up unaware of the wide range of employment opportunities available. Many do not have opportunities to learn the skills needed to seek and hold a good job. While there have been sporadic or localized efforts to offer workforce preparedness programs, there has been little or no consistent, sustained educational programming or support for workforce skills development in the region.

Action Plan and Resources

The coalition program will provide opportunities for 8- to 12-year-olds to develop age-appropriate skills related to successful futures in the workplace. An existing national 4-H curriculum called WOW! (Wild Over Work) will be delivered through adult-youth partnerships.

After plans have been shared with county or parish agents in all three states, teams of one adult volunteer and two teens will be formed from one 4-H club or other youth-serving organization in every community within the program area. These teams will be trained in the curriculum and how to teach it. They will in turn deliver the program to 8- to 12-year-olds, thus providing opportunities for the adult and teen volunteers to develop new skills while they teach the younger children.

This effort will be conducted in collaboration with the Southern Rural Development Center multi-state initiative on workforce preparation. Partnerships with business and industry will be sought to develop opportunities for site visits, job shadowing, and mentoring as well as financial support.

Goals and Outcomes

The WOW! curriculum addresses five goals: awareness, self, attitudes, skills, and vision. The awareness goal is the most appropriate for 8- to 12-year-old children. Specifically, this goal is to help youth "develop an awareness of the wide range of career options available and the education and skills required for them. This includes helping children understand a broad range of career options available to women and men without discrimination based on gender, race, or other stereotype."

Building life-skills is a critical component of building a strong work force for the future. As part of the multi-state initiative, the decision-making curriculum Health Rocks! will be taught in a train-the-trainer format. A national training team based at Mississippi State University Extension Service will provide the skills necessary for the participants in the multi-state conference to successfully implement this program locally.

The program will:

1. Enable 8- to 12-year-olds develop a broader vision of their opportunities in the world of work, build skills in workforce ethics, and understand the types of education they will need to succeed;
2. Provide opportunities for adult and teen volunteers to build skills in program coordination and teaching;
3. Strengthen community-based youth club programs through the formation, training, and work of the adult-youth teams and exposure to an excellent curriculum;
4. Contribute to a trained future workforce with skills in applying for jobs and performing effectively in the workplace.

The project team will develop evaluation methods to measure the success of the program in terms of the impacts on the adult volunteers, the teen trainers, and the 8- to -12-year-olds in terms of skills gained and behaviors changed.

Anticipated outcomes: 100 master-trainers will be provided skills in teaching a curriculum implementation at an August 2004 conference. Participants will represent the delta regions of Mississippi, Louisiana, and Arkansas. It is anticipated that each of these training teams will reach a minimum of 50 youth. This outreach program is anticipated to provide 1,500 total youth skills that will assist them in being successful in the work force.

Delta H.O.P.E. (Healthy Options for People through Extension) Tri-State Initiative

Obesity has been declared an epidemic in the United States (US). With dramatic increases between 1987 and 2000, there are now an estimated 45 million overweight or obese US adults – nearly 65% of the population –according to the Centers for Disease Control and Prevention (CDC), and the number is continuing to grow. Today, one in five adults is classified as obese.

The *Delta H.O.P.E. Tri-State Initiative* will support the implementation and evaluation of a classroom-based intervention that: 1) encourages short bouts of physical activity integrated with academic lessons (TAKE 10!), and 2) presents a cast of fun characters that help teach young children physiology and lifelong healthy behaviors through read aloud books, games, dolls, and informational videos (OrganWise Guys - OWG).

Target Population

The target population for this project is 30,000 students enrolled in grades K-5 and their teachers (n = 1,500) in the Mississippi Delta Region. The Mississippi Delta Region is defined by the Lower Mississippi Delta Commission as a 219-county strip along the Mississippi River in Arkansas, Illinois, Kentucky, Louisiana, Mississippi, Missouri, and Tennessee (including counties served by the Delta NRI).

Expected Outcomes

The evaluation outcomes during this project include, but are not limited to:

- Measurement of the intensity, duration and frequency of the activities that were implemented; determine if certain teacher characteristics predict implementation; and measure teachers' perceived program usefulness. The data will be obtained through monthly calendars and the end of school year teacher implementation survey. The data will be analyzed via frequency distributions, chi-square, and cross-tabulations.
- Measurement of student knowledge change relative to physical activity, nutrition, and general health and safety knowledge via pre/post student knowledge assessments. The pre/post assessments will be compared via the percentage of students who respond correctly (frequency of mastery) to a predetermined health objective.
- Measurement of BMI-for-age percentiles (BMI%) and their change over time using data collected by school nurses. The study will be a 2 x 4 factorial design consisting of two grouping factors, intervention and control and four levels of outcome variable (BMI%). The first level (baseline) will be the covariate while the May 2006 BMI% will serve as the dependent variable. This study design will allow the researchers to test the primary hypothesis, difference in BMI of treatment groups, in the proposed target population. Therefore, the primary measure of this study will be a change in BMI% for height, age and weight, which will be assessed at baseline, 1, 2 and 3 year post-baseline. The intervention aims to lower the BMI of children in the intervention group while the control group will experience the typical increase of BMI. These data will be analyzed using Analysis of Covariance (ANCOVA).
- Evaluation of the amount of accumulated activity during the school day by means of 7-day recall electronic step counters by a sample of the students/teachers (both intervention and control). This will allow the researchers to state whether the intervention had an affect on the behavioral outcome of interest (steps). The data will be analyzed via an analysis of variance (ANOVA).
- Follow-up with the sample of schools that implemented the School Health Index to determine to what extent the objectives were met. The process to determine to what extent the objectives were met will be measured by each committee assigning the respective objective accomplishment as: Complete, Partial, Incomplete or Altered/Modified. ILSI CHP will review the two reports (initial and follow-up) and provide an overview and process evaluation summary report according to the accomplishments and justification of the respective committee's.