DISTRICT OF COLUMBIA

COOPERATIVE EXTENSION

AGRICULTURAL EXPERIMENT STATION

PLAN OF WORK UPDATE FY 2003 - 2004

JULY 1, 2002

UNIVERSITY OF THE DISTRICT OF COLUMBIA

OVERVIEW

Introduction

The University of the District of Columbia (UDC) is unique within the land grant university system: it is the only exclusively urban institution; it is the only public institution of higher education serving the nation's capital; and, it is the only "1862" institution designated as historically Black.

The structural reorganization of the University in FY 1999, as this five-year Plan of Work (POW) was being developed, created the Division of Community Outreach and Extension Services (COES). A Dean who reports directly to the Vice President of Academic Affairs heads the Division and also serves as the Director of both the DC Agricultural Experiment Station (AES) and the DC Cooperative Extension Service (CES); reflecting the so-called "small state" model. The current Dean/Director was appointed by the University President in July 1999 and confirmed by the Secretary of Agriculture in April 2000. Two associate Deans/Directors were appointed in January 2000. The new leadership linked to the restructured Divisional has had a transforming affect on personnel, thus strengthening the cooperative program efforts of the AES and CES.

The Division of Community Outreach and Extension Services takes as its responsibility the task of addressing urban problems through teaching that emphasizes practical learning, research that emphasizes on practical application and public service that emphasizes community engagement.

The Division of Community Outreach and Extension Services is organized for service through six units:

- DC Agriculture Experiment Station
- DC Cooperative Extension Service
- DC Water Resources Research Institute
- Department of Continuing Education
- Office of Vocational and Adult Education
- Office of Workforce Development

Subsequent internal program reviews and the establishment of individual performance appraisals have resulted in increased funding that has increased the impact and visibility of AES/CES programs and activities within the District of Columbia. The AES and CES have enjoyed increased regional and national recognition through energetic and creative leadership. The Dean/Director, the Associate Directors, and Specialists have taken places of leadership on regional and national boards, councils, and committees. Furthermore, working with District Leaders and residents, both the AES and CES intend to increase research projects and education

and training activities needed to enhance the quality of the lives of customers by bringing the University to the people. The DC Agricultural Experiment Station and the DC Cooperative Extension Service enjoy a symbiotic relationship that is flourishing under the small state organizational model.

Continuing Programs

The DC Agricultural Experiment Station and the DC Cooperative Service will continue to undertake research, education, and training that addresses the social and the physical environmental concerns of our stakeholders. Specifically, the research will focus urban children, youth, and families conditions such as nutritional risks and antioxidant status in the elderly; food quality and storage; restoration, conservation, and preservation of the city's natural environment and resources; water quality and monitoring; pest management; urban gardening; soil improvement; soil testing; and safe recycling and composting methods. Applied programs and activities will continue to support the organizational areas of Environment and Natural Resources (formerly Agriculture and Natural Resources); Family and Consumer Science; Community Resources and Economic Development; and Youth Development and 4H. The AES researchers will confer with the CES professional staff to identify research needs. The CES professional staff will redouble its efforts to disseminate the findings of the AES researches for the benefit of customers.

DC Agricultural Experiment Station

The Agricultural Experiment Station will continue to support and implement the national goals identified by the Cooperative State Research, Education, and Extension System with research activity that includes:

Goal 1: An Agricultural System That Is Highly Competitive In the Global Economy

- Promoting principles of Sustainable Agricultural to support methods of gardening in limited urban space in the District and throughout the world.
- Nodulation in *Vigna unguiculata* with *Rhizobium* or *Bradyrhizobium* after treatment with Biosolids is a study to (1) determine the strains of Bradyrhizobia in soil amended with biosolids, (2) to compare the genetic diversity among these strains in biosolids treated and untreated soil; and (3) examine nodulation at the cellular level in V unguiculata (cowpea) and Glycine max (soybean) grown in symbiosis with Bradyrhizobium in soil amended with biosolids.

Goal 2: A Safe, Secure Food and Fiber System

• The "Post-Harvest Physiology of Fruits" study focuses on the development of better methods for extending the shelf life of freshly cut produce.

Goal 3: A Healthy, Well-Nourished Population

• The "Nutritional Risk and Antioxidant Status in the Elderly" study is designed to improve methods of assessing dietary patterns and nutrient intakes of the elderly, as well as on the antioxidant compounds in their diets and bodies.

Goal 4: Greater Harmony Between Agriculture And The Environment

- A study to assess the use of biodegradable waste as composted material and used as soil amendments in crop production in the urban gardens of the District of Columbia.
- "The Fate and Toxicity of Triorganotin Compounds and Their Interactions with Anacostia and Potomac River Sediments" is a study that investigates sediment uptake and effects of aquatic biota of two classes of triorganotin compounds.
- Collaboration with the DC Cooperative Extension Service to test soil laboratory to determine the basic fertility levels of their garden soils.

Goal 5: To Enhance Economic Opportunities And The Quality Of Life Among Families And Communities

- A Dwight D. Eisenhower Professional Development Grant was awarded from the Department of Human Services, Office of Postsecondary Education, Research and Assistance to establish a Water Environmental Studies in Schools (WESS) Teacher Training Institute involving four DC Public Schools.
- The Adopt-A-Block Program is a partnership between the AES, CES, the Fannie Mae Foundation, Giant Supermarkets, Keep America Beautiful, and the Executive Office of the Mayor. The program beautifies a main access corridor in the District and educates neighborhood schoolchildren about litter prevention.
- The National Tree Trust has collaborated with the AES to establish a "grow-out" station at the Muirkirk Farm. Seven thousand (7000) seedlings were planted and will continue to be nurtured to maturity and transplanting.

The **Center for Nutrition, Diet, and Health**, created by the Dean/Director in FY 2000, will continue to undertake research to address issues relevant to the nutritional needs of the residents of the District. The Center will occupy a dedicated space for research, education, and training. The Center will also have the University's Nutrition and Food Preparation labs available for training individuals in food safety and other diet and health related issues.

DC Cooperative Extension Service

The DC Cooperative Extension Service will continue to address the practical educational and training needs of District residents. CES will continue to seek new effective and efficient ways to enhance educational and training opportunities while it maintains relevant high quality programs and activities with measurable outcomes. The CES will continue to be involved in programming activities during the remaining two years of this Plan of Work that will include interagency and public/private collaborations. Continuing programs and activities in support of national goals include:

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

• Urban Gardening

Goal 2: A Safe, Secure Food and Fiber System

• Food Safety

Goal 3: A Healthy, Well-Nourished Population

• Human Nutrition

Goal 4: An Agricultural System Which Protects Natural Resources And The Environment

- Integrated Pest Management
- Agriculture in the Classroom
- Project Learning Tree

Goal 5: Enhance Economic Opportunity and Quality Of Life for Americans

- Family Resource Management
- Youth Development/4H
- Family Resource Management
- Housing and Energy Conservation
- Community Resources and Economic Development

The **Center for the Study of Cooperatives**, created by the Dean/Director in 1994, will continue to provide educational leadership to various entities in the District, such as housing cooperatives and tenants associations. The University dedicated the C. H. Kirkman, Jr. Resource Library for Cooperatives to support the Center's activities during FY 2002. The Kirkman Resource Library will serve the east coast of the United States and joins the two other Resource Libraries at the University of Wisconsin and the University of California.

Multistate Research Activities

There are two current Multistate Research Projects that are expected to continue during the remainder of this POW:

(1) NE-103 Postharvest Physiology of Fruits

(2) NE-172 Nutritional Risk and Antioxidant Status in the Elderly

INTEGRATED RESEARCH AND EXTENSION ACTIVITIES

The AES and CES will continue to work together on the following programs:

- (1) Post Harvest Physiology of Fruits
- (2) Nutritional Risk and Antioxidant Status in the Elderly
- (3) Adopt-A-Block
- (4) Soil Testing and Analysis
- (5) Integrated Pest Management

STAKEHOLDERS INPUT FOR NEW PROGRAM INITIATIVES FOR FY 2003 - 2004

The Advisory Board is the primary stakeholders group from which the AES and CES receive input about current and future projects, programs, and activities to serve and engage the residents of the District. The Board consists of two persons from each Ward of the City who were recommended to the Dean/Director for appointment by the City Councilors from each of the eight wards. There are eight at-large Board members appointed by the Dean/Director.

During a regularly scheduled quarterly meeting of the Advisory Board, the following topics were recommended for future development during the duration of this Plan of Work:

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

• Geological Information Systems and Global Positional Systems

Goal 2: A Safe and Secure Food and Fiber System

• Food Accessibility and Affordability

Goal 3: A Healthy, Well-Nourished Population

• Human Nutrition

Goal 4: Greater Harmony Between Agriculture and the Environment

• Water Quality Air Quality

GOAL 5: Enhanced Economic Opportunity and Quality of life for Americans

- Child Care/Dependent Care
- Workforce Preparation
- Youth Development

New initiatives will be developed to reflect the input of the Advisory Board as financial and human resources permit. The emphasis for project and program development during the remainder of the POW will be on children, youth, and family.

New Projects, Programs and Initiatives for FY 2003 – FY 2004

Agricultural Experiment Station

Urban Gardening

Project: "Gardening for Health and Profit"

Project: "Global Positioning System/Geographic Information Systems"

Project: "Achievement in Developmental Courses: A comparative analysis"

Cooperative Extension Service

Youth Development Programs (Youth at Risk)

Program: "A Day in your Future Life"

Program: "Academic Achievement through Athletics"

Nutrition and Food Safety

Program: "Healthful and Safe Food in Your Home"

Community Leadership Development

Program: "Community Leadership for Civic Leaders"

Adult Literacy

Program: "High School Completion to College Entrance"

Program Review Process

The Dean/Director is committed to program review for the purposes of assessing relevance, measurable outcomes, and impact on the residents of the District of Columbia. This commitment will be implemented during FY 2003. The Dean/Director has invited a Program Review Team from CSREES to visit the campus to review research projects of the AES and program and activities of the CES is scheduled for December 2002.

Research

The Director will continue to review the progress of each research project on an annual basis in August. During the remainder of this POW, beginning in FY 2003, the Director will create a Research Council that will be chaired by the Associate Dean for Research and Advanced Studies. The Research Council will develop general criteria for the evaluation of research projects, issue Requests-for-Proposals, and recommend the continuance of research projects to the Director. The Dean/Director will make the final decision regarding evaluative criteria, funding for research, and the continuation of funding for existing research projects. Continued funding will be linked to project evaluation.

Extension

Currently, each of the organizational areas within CES; Environment and Natural Resources, Family and Consumer Science, Community Resource and Economic Development, and Youth Development/4H, has developed its own evaluative criteria and process. During the remainder of the POW, general evaluative criteria will be developed to address characteristics common to all programs and a renewed emphasis on outcomes will be made explicit. Program specific criteria will also be used for evaluation. Both quantitative and qualitative criteria will continue to be used. Continued program funding will be linked to program evaluation.

Funding For All Programs

USDA/CSREES will continue to be the major funding source for both AES and CES. It will be a goal over the next two fiscal years to fully match federal dollars with "state" dollars. There are no local dollars from city wards as there are from state counties in other jurisdictions. Consequently, the following funding is projected:

Extension

Year	Federal	State	Local	Other
2003	998,000	998,000	NA	25,000
2004	998,000	998,000	NA	30,000

Research

Year	Federal	State	Local	Other
2003	665,000	665,000	NA	30,000
2004	665,000	665,000	NA	35,000

FULL TIME EQUIVALENT PERSONNEL

Extension

Year	Professional	Paraprofessional	Total
2002	14	4	18
2003	16	4	20
2004	18	4	22

Research

It is expected that will be no net change in personnel by FY 2004. If a fully funded match is achieved, percentages of professional personnel would be expected to increase due to an increase in the number of employed researchers.

Year	Professional	Paraprofessional	Total
2002	10	2.50	12.50
2003	10	3.50	13.50
2004	10	3.50	13.50

Summary

The final two years of this Plan of Work will witness a continuation of most existing research projects and program activities. New research and program initiatives will be directed toward the development of Children, Youth, and Family in response to stakeholder input. Stakeholder input will be increased through self-administered questionnaires to residents. More attentiveness to program evaluation will be achieved. The prospect of growth in both multistate projects and integrated programs is high. It is expected that both AES and CES will experience program and personnel growth over the next two fiscal years as a full state dollar match is achieved.

Roland E. Holstead, Ph. D. Director, DC Agricultural Experiment Station Director, DC Cooperative Extension Service University of the District of Columbia 4200 Connecticut Avenue NW Washington, DC 20008 Voice: 202-274-7100 FAX: 202-274-7016 Email: rholstead@udc.edu

Gloria S. Wyche-Moore, Ph. D. Associate Dean/Associate Director Agricultural Experiment Station University of the District of Columbia 4200 Connecticut Ave., N.W. Washington, DC 20008 Voice: (202) 274-7124 Fax: (202) 274-7113 Email: gwychemo@udc.edu

Dolores Langford Bridgette, M. A., Associate Dean/Associate Director DC Cooperative Extension Service University of the District of Columbia 4200 Connecticut Avenue, NW Washington, DC 20008 Voice: 202-274-7133 FAX: 202-274-7130 Email: dlbridgette@udc.edu

1.0 INTRODUCTION

The University of the District of Columbia (UDC) is unique within the land grant university system: it is the only exclusively urban institution; it is the only public institution of higher education serving the nation's capital; and, it is the only "1862" institution designated as historically Black. The United States Congress charted the University in 1976. The legislation directed the combining of three existing public institutions of higher education within the District: DC Teachers College; Federal City College; and Washington Technical Institute. DC Teachers College traced its roots back to the Mytilla Minor School for Colored Girls, established in 1851. Thus, the 1999 designation of the University by Congress as a historically Black college. The University gets its 1862 land-grant status from both Federal City College and Washington Technical Institute, which were established in 1966.

The structural reorganization of the University in FY 1999, as this five-year Plan of Work (POW) was being developed, created the Division of Community Outreach and Extension Services (COES). A Dean who reports directly to the Vice President of Academic Affairs heads the Division and also serves as the Director of both the DC Agricultural Experiment Station (AES) and the DC Cooperative Extension Service (CES); reflecting the so-called "small state" model. The current Dean/Director was appointed by the University President in July 1999 and confirmed by the Secretary of Agriculture in April 2000. Two associate Deans/Directors were appointed in January 2000. The new leadership linked to the restructured Divisional has had a transforming affect on personnel, thus strengthening the cooperative program efforts of the AES and CES.

The Division of Community Outreach and Extension Services takes as its responsibility the task of addressing urban problems through teaching that emphasizes practical learning, research that emphasizes on practical application and public service that emphasizes community engagement.

The Division of Community Outreach and Extension Services was reorganized in FY 2000. Processes were reengineered to be more efficient and effective and funds were realigned to support research and programs judged to have the greatest positive impact on the stakeholders. The Division is currently organized for service through six units, each headed by a Director. Again, in the case of the AES and CES, the same person serves as Director of each in addition to having responsibilities as the Dean.

- DC Agriculture Experiment Station
- DC Cooperative Extension Service
- DC Water Resources Research Institute
- Department of Continuing Education
- Office of Vocational and Adult Education
- Office of Workforce Development

Subsequent internal program reviews and the establishment of the individual performance appraisal system, and other continuous quality improvements have resulted in increased funding that has increased the impact and visibility of AES/CES projects, programs, and activities within the District of Columbia. The AES and CES have enjoyed increased regional and national recognition through energetic and creative leadership. The Dean/Director, the Associate Directors, and Specialists have taken places of leadership on regional and national boards, councils, and committees. Furthermore, working with District Leaders and residents, both the AES and CES intend to increase research projects and educational and training activities needed to enhance the quality of the lives of customers by bringing the University to the people. The DC Agricultural Experiment Station and the DC Cooperative Extension Service enjoy a symbiotic relationship that is flourishing under the small state organizational model. The stability that the units and the Division have experienced is expected to continue.

2.0 CONTINUING PROGRAMS

The Agricultural Experiments Station will continue to undertake research that addresses topics of interest to, and meets the goals of, the Cooperative State Research, Education, and Extension System to the extent that those goals relate to the identified needs of District residents as identified by the stakeholders.

2.1 DC Agricultural Experiment Station

The DC Agricultural Experiment Station is indeed unique among land grant institutions because agriculture in the District of Columbia is, at most, horticulture, but the Station, nevertheless, engages in legitimate research related to what might be called urban agriculture. Headquartered at the University of the District of Columbia's main campus on Connecticut Avenue, the AES operates the Muirkirk Farm, a one hundred forty-three (143) acre site located in Beltsville, Maryland, ten miles from the main. Eighty percent of the land at Muirkirk is wooded. While the farm is not conveniently located for the practical use of most residents of the District, it does serve the residents through the results of the research and activities undertaken there. The Muirkirk Farm is a site of projects categorized generally as related to urban gardening.

The AES will continue to address topics identified with the national goals promulgated by the Cooperative State Research, Education, and Extension System with research and activities supported by the stakeholders within the District of Columbia.

Continuing AES supported projects include:

Goal 1: An Agricultural System That Is Highly Competitive In The Global Economy

PROJECT: A Comparative Study of Nodulation in *Vigna unguliculata* in Symbiosis with *Rhizobium* or *Bradyrhizobium* before and after Treatment with Biosolids

Statement of Issue

The District of Columbia, like many urban areas around the world, does not possess land space sufficient to dispose of its biosolids. When this organic material is composted, it acts as a nutrient rich fertilizer. When biosolids are composted, rapidly diminishing landfill space can be saved, nutrients removed from the soil are replenished during gardening, soil erosion prevented and water retention increased. Before biosolids compost can be used extensively, there must be an examination at the cellular and molecular levels to determine the effects of biosolid compost on nodulation and subsequent plant production. In this study, the influence of biosolids compost on *Bradyrhizobium japonicum* will be determined, the *Bradyhizobium* species or strain in the soil that acts in symbiosis will be identified, and compared with *Vigna unguiculata* (the cowpea) for nodulation effectiveness. Further, the molecular differences that may exist between *Bradyhizobium japonicum* and *Bradyhizobium* species or strain isolated from the soil before and after application of biosolids compost will be determined.

Method

This study will continue to the end of FY 2003. The project focuses on the cellular and molecular mechanisms involved in nodulation and the effect that an exogenous factor (biosolids compost amended soil) has on the phenotypic variations seen in *Vigna unguiculata* as a result of symbiosis with *Bradyrhizobium japonicum* and the species or strain of *Bradyrhizobium* that is isolated from the soil. The *Bradyrhizobium* found in the soil has been characterized and compared with known species and strains of bacteria. Molecular and cellular comparisons have been made of the nodules produced by *Vigna unguiculata* in symbiosis with the different species of bacteria both before and after application of biosolids compost. Genetic variations will be examined at intervals during the first 15 days after inoculation, because the translation products, early nodulins, are expressed well before the onset of nitrogen fixation. Early time periods will be selected to obtain the crucial steps in establishing symbiosis and the expression of bacterial genes which are known to initiate and establish the early nodulation steps.

This study is being conducted in the greenhouse at the United States Department of Agriculture, Soybean Research Laboratory in Beltsville, Maryland and on plots established at the University of the District of Columbia, Muirkirk Research Farm in Beltsville, Maryland. Many aspects of the cellular and molecular mechanisms in nodulation have been examined.

Outcomes/Impacts

The project which is examining the cellular and molecular responses of *Vigna unguiculata* to different quantitative treatments of biosolids compost amended soil, has determined the species and/or strain of *Bradyrhizobium* in the amended soil, and has examined nodulation in *Vigna unguiculata* before and after growth in biosolids compost amended soil. It is determining the onset of production and the location of early nodulins in nodules, and to perform immunocytochemical studies at the light and electron microscopic levels on *Vigna unguiculata*

at different time periods during the nodulation process.

The citizens of the District of Columbia and the world should gain information from this project that will assist them to produce higher yields from their home gardens using biosolids compost and a high quality strain of *Bradyrhizobium*.

Publications: Carolyn Cousin, J. Grant, F. Dixon, D. Beyene and P. van Berkum. Influence of biosolids compost on the bradyrhizobial genotypes recovered from cowpea and soybean nodules. Archives of Microbiology. January, 2002.

Cost Estimate: 40,000 FTE: 0.5

Contacts

Dr. Carolyn Cousin and Dr. Jean Grant, Project Directors Department of Biological and Environmental Sciences University of the District of Columbia 4200 Connecticut Avenue, NW Washington, D.C. 20008 Voice 202-274-5874 or 202- 274-5878 Fax- 202-274-6419

Goal 2:	A Safe, Secure Food and Fiber System		
	See Goal 2 under Multistate Projects		
Goal 3:	A Healthy, Well-Nourished Population		
	See Goal 3 under Integrated Projects		
Goal 4:	Greater Harmony (Balance) Between Agriculture And The Environment.		
Project:	Effects of Using Composted Waste as Soil Amendments in Urban Horticultural Practices in the District of Columbia		

Statement of Issue

There is a need to recycle municipal waste in order to help solve our waste storage problems, minimize the enrichment of surface and ground water with nutrients. Recycling of municipal waste (composted yard wastes) could result in providing economical sources of organic soil amendment for the production of crops.

Spring and fall crops will be compared to determine if the cropping system in these urban gardens increased crop productivity. The use of legumes and non-legumes will be used to determine which intercrops are compatible when compared to monocrops. An Integrated Pest Management Program for use on weed, insects, diseases will be employed. Crop yield grown on composted waste and crops grown using commercial fertilizer will be compared and assessed to determine differences, if any, for garden crop production. Vegetables commonly grown by home gardeners in the District of Columbia will be used. Low-inputs will include, composted waste materials and legume nitrogen as soil amendments. Weeds will be controlled by hand hoes or roto tillers. The use of chemicals to control diseases or insects will be held to a minimum. Resistant varieties of vegetables will be planted.

Output/Impact

Extending the growing season for small garden plots, maximizing the productive capacity of garden plots, and facilitating the transfer of a low-input multiple cropping system to home gardeners in the District of Columbia is the expected result. Increased productivity from urban gardens is also expected. Furthermore, an increased adaptability to low-input technology in urban garden production in the District of Columbia will be assessed.

Cost Estimate: 40,000

FTE: 0.5

Contact

Dr. James R. Allen, Project Director Agricultural Experiment Station University of the District of Columbia 4200 Connecticut Avenue, NW Washington, D.C. 20008 Voice: (202) 274-7140 Fax: (202) 274-7119 Email: jallen@udc.edu

Project: Sustainable Agricultural Project will continue in the District of Columbia where urban gardeners and other agricultural (horticultural) industry professionals will continue to be trained to establish and maintain gardens using sustainable cultural techniques.

Implementation: Extension agents, master gardeners and lawn and garden professionals will be exposed to the principles of sustainable agriculture and implementation techniques will be demonstrated as they related to the growing horticultural crops. Training will be accomplished by offering regular classes and seminars at the main campus of the University of the District of Columbia. In addition, field days and farm tours will be conducted so that gardeners can be given hands-on instruction on establishing and maintaining gardens. The training and education program is a collaborative effort between the Agricultural Experiment Station and the

Cooperative Extension Service of the University of the District of Columbia.

Outcomes/Impact: Trained individuals assist community gardeners in establishing and maintaining vegetable gardens throughout the District.

Cost Estimate: 40,000 FTE: 0.5

Contact

Dr. James R. Allen, Project Director Agricultural Experiment Station University of the District of Columbia 4200 Connecticut Avenue, NW Washington, D.C. 20008 Voice: (202) 274-7140 Fax: (202) 274-7119 Email: jallen@udc.edu

Project: The Fate and Toxicity of Triorganotin Compounds and Their Interactions with Anacostia and Potomac River Sediments is a study that investigates sediment uptake and effects of aquatic biota of two classes of triorganotin compounds. Triorganotins were commonly used as the antifoulant agents in marine paints. These compounds have been shown to be toxic to various marine organisms, as well as to the targeted species. Therefore, it is essential to understand the speciation of these organotins to gain a better understanding of their interactions in the aquatic environment.

Method: This project will continue to be conducted on the Anacostia and Potomac Rivers using the same methods as prescribed in the original POW.

Outcomes/Impacts: An informed understanding of pollutants and their speciation products will provide individuals and government agencies responsible for water quality and planning with the knowledge of the potential hazards of triorganotin compounds.

Cost Estimate:n 30,000

FTE: 0.3

Contacts:

Dr. George Eng, Project Director Agricultural Experiment Station University of the District of Columbia 4200 Connecticut Avenue, NW Washington, D.C. 20008 Voice: (202) 274-7140 Fax: (202) 274-7119 Email: geng@udc.edu District of Columbia Plan of Work Update FY 2003 - 2004

Goal 5: To Enhance Economic Opportunities And The Quality Of Life Among Families and Communities

Project: This Dwight D. Eisenhower Professional Development Grant will continue at least for FY 2003. The grant will continue to be used to support the Water Environmental Studies in Schools (WESS) Teacher Training Institute. The project involves four DC Public Schools.

Method: The WESS Teacher Training Institute is designed to train 32 junior and middle high school teachers in water quality assessment and conservation. A follow-up program practicum is with students. The WESS Teacher Training Institute provides training for school teachers in math, science, technology, art and humanities, and water environmental studies. Involvement of students in the same discipline areas is required.

Outcomes/Impact: Teachers and students become involved in the restoration and conservation of the Anacostia River, its flora and fauna and the development of a plan that engages the total community in the conservation of the Anacostia watershed. The teachers implement the classroom program during the academic year. The WESS Teacher Training Institute imparted knowledge and instructional skills to teachers that enabled them to upgrade instruction in math and science, making those subjects more interesting and engaging for their students. The

program will also provide a basic curriculum model for bringing environmental education into the schools. Thus, the program can never be "over." Teachers acquire knowledge that they can apply throughout their teaching years.

Cost Estimate: 25,000

FTE: 0.3

Contacts:

Dr. Joanne Favors Agricultural Experiment Station University of the District of Columbia 4200 Connecticut Avenue, NW Washington, DC 20008 Voice: 202-274-7124 Fax: 202-274-7119 Email: jfavors@udc.edu

Project: A partnership with the National Tree Trust Foundation is strong and will continue. The Muirkirk Farm serves as a grow-out station for the Trust and sustains nearly seven thousand (7000) hardwood seedlings. The matured trees are to be transplanted at an appropriate future date to help reforest the District.

Outcomes: Transplanting seedlings in the District in cooperation with Casey Tree Foundation.

Cost Estimate: 60,000

FTE: 1.0

Center for Nutrition, Diet, and Health,

The Center for Nutrition, Diet, and Health, created by the Dean/Director in FY 2000, will undertake research of nutritional needs of children and youth. Educational and training programs are expected to increase and the Center will develop and improve the delivery of practical programs to the public. The Center will occupy a multi-purpose space for research, education, and training. The Center will also have the University's Nutrition and Food Preparation labs available for training individuals in food safety and other diet and health related issues.

The Center's staff has the potential to combine the cooperative efforts of University faculty, scientists from federal, state, and local governments and the U.S. Department of Agriculture. The Center is designed to assist District of Columbia residents to acquire the knowledge, skills, and behaviors necessary for healthy lifestyles throughout the life cycle. It is further designed to enhance the total well being of both individuals and families.

Project: District of Columbia Food Handler Certification Program Model

Method: This program is designed to conduct research to determine the appropriate educational level and methodologies needed to develop an extension education certification program to provide training for low literacy and hard-to-reach food handlers in the District of Columbia to gain national certification as food protection handlers/managers.

Outcomes: 400 adults employed or interested in becoming employed in the food industry will receive direct service.

Program: District of Columbia 2001 Team Nutrition Training Grants Initiative

Method: The program will train and equip classroom and physical education teachers to integrate nutrition education into their instruction, field and study activities, with support from the total school, parents, and community.

Outcomes: 7000 children from DC Elementary, Middle and Junior High Schools will have the knowledge to choose healthful foods in order to improve health.

Program: District of Columbia Food Stamp Nutrition Education Program

Method: To provide nutrition educational programs that increase the likelihood of all food stamp recipients and food stamp eligible recipients make healthy food choices consistent with the most recent dietary advice as reflected in the Dietary Guidelines for Americans and the Food Guide Pyramid.

Outcomes: 20,000 persons will benefit from this science-based nutrition education to improve dietary behavior is expected to improve health and help reduce the tremendous cost of health care in the District of Columbia.

Program: Determinants of Childhood Obesity Program Grant Proposal

Method:

The project addresses a national as well as local need for greater comprehension of factors influencing dietary behaviors of these at-risk children and testing of models of intervention in order to develop a model for education and extension programs to be implemented in the D.C. community.

Outcomes: 500 children between the ages of 8 and 14 will learn how to make decisions that contribute to balanced meals for more healthful eating.

Contact:

Dr. Lillie Monroe Lord, Head Center for Nutrition, Diet, and Health University of the District of Columbia 4200 Connecticut Avenue, NW Washington, DC 20008 Voice: (202) 274-7125 FAX: (202) 274-7130 Email: Imlord@udc.edu

2.2 DC Cooperative Extension Service

The DC Cooperative Extension Service will continue to address the practical educational and training needs of District residents. CES will continue to seek new effective and efficient ways to enhance educational and training opportunities while it maintains relevant high quality programs and activities with measurable outcomes. The CES will continue to be involved in programming activities during the remaining two years of this Plan of Work that will include interagency and public/private collaborations. Continuing programs and activities include:

GOAL 1: To Achieve An Agricultural Production System That Is Highly Competitive In The Global Economy.

Organizational Unit: Environmental and Natural Resources (ENR)

Statement of the Issue

Agriculture in the District of Columbia is horticulture. Our stakeholders are most concerned about the preservation of the most natural environment possible in a highly urban area. Gardening is a popular past time in the District. Regardless of their demographic differences, many people living in the nation's capital have backyard or public gardens. While there is the possibility of identifying techniques that could have global impact, the goal for this program is to teach interested residents about environmentally sound practices for urban gardening.

Program: Master Gardener

The Master Gardening in the District of Columbia is currently active after a two-year absence. The overall objective is to train Washington DC citizens to be resources in their communities for gardening expertise. UDC trained Master Gardeners in the community increase the outreach of cooperative extension, provides a level of valuable horticultural education for individuals, and provides a foundation for beautification of the District of Columbia

Method: Forty eight hours of classroom instruction taught by University and external experts in Horticulture, Entomology, Integrated Pest Management, Soils, Botany and sustainable practices among other topics. A written examination and fifty hours of volunteer service to the community are key elements of the program.

Outcomes/Impacts: The preparation of a minimum of 60 master gardeners a year will have an important impact on residents of the District through volunteer service.

Program: Junior Master Gardener

Junior Master Gardening in the District of Columbia began for the first time in FY 2002, with the first club of 100 participants from the National Arboretum Youth program. A CES agent serves as the state coordinator in this volunteer driven program. The objectives are to expose youth to the principles of horticulture and to increase their awareness of educational opportunities through the study of agriculture.

Method: Classroom and field training.

Outcomes/Impacts: A minimum of two additional Junior Master Gardener Clubs will be formed. Youth involved in the Junior Master Gardener program develop a sense of pride, responsibility, and leadership while being exposed to both peer and intergenerational mentoring.

Program: Home Lawn and Garden Assessment

This service provides technical assistance to homeowners, some renters, embassies, neighborhood associations, and garden clubs seeking advice on maintenance and beautification of either private or public lands within the District of Columbia. The soil-testing component of this program is an integrated program between the CES and AES.

Methods: A CES Agent responds to telephone inquiries and makes site visits to provide assistance to area public and private facilities to determine diseases and/or the conditions of lawns, trees, plants and shrubs, yielding recommendations for treatment. Soil analysis (soil testing) is undertaking to evaluate the quality, fertility, and substances within the soil, if any. Recommendations for remediation of soil are offered. Soil samples are submitted by residents or businesses within the District to CES for processing.

Outcomes/Impacts: A minimum of 60 site assessments will be conducted. Soil testing will continue to be available to District residents. The quality of District soil will improve.

Cost Estimate: 60,000

FTE: 1.5

Contacts

Dr. Robert Hamilton, Extension Specialist DC Cooperative Extension Service University of the District of Columbia 4200 Connecticut Avenue, NW Washington, DC 20008 Voice: (202) 274-7122 Fax: (202) 274-7130 Email: rhamilton@udc.edu

Sandra Farber, Extension Agent DC Cooperative Extension Service University of the District of Columbia 4200 Connecticut Avenue, NW Washington, DC 20008 Voice: (202) 274-7166 Fax: (202) 274-7130 Email: sfarber@udc.edu

Goal 2: A Safe, Secure Food and Fiber System

Organization Area: Family and Consumer Science

Statement of the Issue:

Food safety education continues to meet a critical need in the District of Columbia. Food Safety has received attention following multiple cases of food borne disease. The District's population of 572,059 contains significant numbers of children and seniors and many people with compromised immune systems that require clean, safe food. Apart from research into the pathology of microbes, education is key to safe food handling and wholesome food consumption. The education of citizens about the imperative for food safety is critical to the goal of reducing the number of food borne illnesses.

Program: Food Safety for Seniors

Implementation: Using the SERVSAFE program as a guide, teaching materials related to time-temperature safety, storage methods and personal hygiene will be distributed to Seniors at sites throughout the District of Columbia.

Outcomes/Impact: Approximately 500 Seniors will receive food safety information Approximately 300 seniors will make more than one change in safe storage practices

Program: Food Safety in Day Care Centers

Method/Implementation: Teacher and staff training will be provided, using materials from the SERVSAFE program

Outcomes/Impact: Training will be provided to the staff of 10 day care centers. Approximately 50 staff will receive training 70% of the trainees will increase the number of times they wash hands, before feeding children and after changing diapers

Program: Food Safety for Children

Method/Implementation: Children will be taught the importance of hand washing, using the GLITKIT. Hand washing will be demonstrated.

Outcomes/Impact: Students of the 10 day care centers will receive training in appropriate hand washing techniques. Ninety percent (90%) of the students will wash hands before eating and after playing.

Program: Food Safety and HIV

Plan of Work Update 2003 - 2004 District of Columbia Method/Implementation: Instruction about food safety issues will be presented and educational materials will be distributed.

Outcomes/Impact: 1000 individuals with HIV/AIDS will receive this information

Cost Estimate: 40,000

FTE: .8

Contacts

Usha Kalro, Extension Specialist DC Cooperative Extension Service University of the District of Columbia 4200 Connecticut Avenue, NW Washington, DC 20008 Voice Mail: (202) 274-7131 Fax: (202) 274-7130 Email: ukalro@udc.edu

GOAL 3: A Healthy, Well-Nourished Population

Project: "Nutrition on Demand Programs,"

Program: Senior Nutrition Program

Method/Implementation: Nutrition and Health Seminars

Outcome/Impact: 75% of the participants will make one positive dietary change

Program: Diabetes and the Homeless

Method: Group education

Outcomes/Impact: 60% of he participants will maintain glycemic control

Program: Family Nutrition in the Hispanic Community

Method: Nutrition education on topics such as the food pyramid, five a day, healthy snack ideas and budgeting food dollars

Outcomes/Impact: 60% will include 2 fresh fruits in the diet 50% will offer healthy snacks to their families once a week

Program: Welfare to Work

Method: Basic nutrition skills and education provided to participants who are in training for the food service industry.

Outcomes/Impact: 55% of the participants will make one healthy substitution in a recipe.

Program: Nutrition from the Garden

Method: In partnership with the National Arboretum and DCPS, this program will teach children about nutrients and their importance, in commonly grown fruits and vegetables.

Outcomes/Impact: 90% of the participants will be able to identify 2 nutrients available in 2 common fruits or vegetables

Program: National Nutrition Month

Method: Nutrition activities with middle school children in the month of March

Outcomes/Impact: 5 schools will participate and 65% of the participants will include 1 fresh fruit in the diet everyday.

Cost Estimate: 40,000

FTE: 0.5

Contact

Usha Kalro, Extension Specialist/Nutritionist DC Cooperative Extension Service University of the District of Columbia 4200 Connecticut Avenue, NW Washington, DC 20008 Voice Mail: (202) 274-7131 Fax: (202) 274-7130 Email: ukalro@udc.edu

Goal 4: Greater Harmony Between Agriculture and the Environment

Program: Pesticide Safety Programs:

Method: Working with the DC Regulatory Agency planning for the development of new

training materials, examinations, and practical reviews has begun. Examinations are scheduled

by DC Department of Health 6 times/year. ENR will have resources available prior to each scheduled practical examination for students to become familiar with specimens of important pests, diseases, and the damage that they cause. Study days will be conducted at the University.

Outcomes:

Target 75 people per year to be trained through certification training Target 120 people per year to receive UDC sponsored or co-sponsored re-certification training Target 75 people per year to be trained through non-certification training (contact with site assessments, master gardener lectures, elementary school outreaches...) Develop at least 1 new training material/year

Program: Agriculture In the Classroom

Methods: Classroom training of DC educators to have them teach more about the food and fiber system, and the role of agriculture in our economy and society. Emphasis is placed on integrating agriculture across the curriculum, including Art and Music. One or more schools in each of the Wards of the District have been provided with teacher training and AITC has become a respected partner with the DC Public School Administration and Teachers.

Outcomes:

- 10% increase in the number of teachers trained each year by inviting whole grade levels to participate.
- Solicit the involvement of at least two DC Public Schools' (DCPS) Administrators at the District Level, to assist with aligning agricultural content with DCPS and the National Standards of Learning.
- Publish an AITC Bi-annual Newsletter.

Program: Project Learning Tree (PLT)

Method: This project will use existing national and state networks of the PLT in the City Programs to build partnerships with community leaders and organizations. These partners in turn assist in recruiting community organizers, developing an urban steering committee, and identifying volunteers and educators to provide and take part in training. In addition, the local partners will help the project sustain the initiative beyond the initial funding period. This role has been traditionally filled by urban organizations such as community colleges, universities, African-American/Asian/Hispanic special interest groups, school districts, and local businesses.

Outcomes:

• Increase the number of teachers trained by recruiting four more elementary schools and one high school, continuing the "Whole-School Educator Workshop" strategy, training approximately 225 administrators, teachers and education aides.

- Develop and distribute criteria used to identify at least four PLT Schools in the District of Columbia.
- Create a PLT in the City Program Brochure to be distributed in each of the PLT schools and identified community education fairs.
- Meet with the PLT School on-site academic committee to plan the annual PLT focus.
- Award at least twenty-five Green Works! Community Action Grants.

Cost Estimate: 100,000 FTE: 1.5

CONTACTS

Dr. Robert Hamilton, Extension Specialist/Entomologist DC Cooperative Extension Service University of the District of Columbia 4200 Connecticut Avenue, NW Washington, DC 20008 Voice Mail: (202) 274-7122 Fax: (202) 274-7130 Email: rhamilton@udc.edu

Barbara B. Evans, CES Research Associate DC Cooperative Extension Service University of the District of Columbia 4200 Connecticut Avenue, NW Washington, DC 20008 Voice Mail: (202) 274-7160 Fax: (202) 274-7130 Email: bevans@udc.edu

Goal 5: Enhance Economic Opportunity And Quality Of Life For Americans

Theme: Youth Development Program: 4-H and Youth Development Program

Statement of Issue:

In general, there is mounting evidence of the usefulness and need for a strong and vital 4-H and Youth Development Program in D.C. which serves all youth. However, as the faces, cultures, and economic dynamics of the city continue to change, the resources of the 4-H and Youth Development Program are sorely needed in undeserved urban populations, charged with the responsibility of developing productive, contributing young people without adequate resources. Many of these youth are termed "YOUTH AT RISK". Without the values, beliefs and mission

of the 4-H and Youth Development Program, many of them have little hope for their

development as productive, contributing citizens. Leadership, public speaking, communication, and career development skills are but a few examples of the preparatory work that 4-H has done well for full century.

Method: One of the ways UDC 4-H and Youth Development plans to deliver its programs over the next five years, is through a newly formed partnership with faith groups in the community.

Outcome: 100 4H Clover Clubs in DC Public Schools

Cost Estimate: 180,000 FTE: 1.4

Contact:

Dr. Rovenia M. Brock-Riggins, Extension Specialist 4-H and Youth Development University of the District of Columbia DC Cooperative Extension Service 4200 Connecticut Avenue, NW Washington, DC 20008 Voice Phone: (202) 274-7136 Fax Phone: (202) 274-7130 Email: rbrock@udc.edu

Theme: Community Resources and Economic Development Program: Personal and Business Economics

Statement of Issue:

The University of the District of Columbia, Office of Community Outreach and Extension Services, offers through its Cooperative Extension Service a Community Economic Development Program. The purpose of this program is to improve the economic well-being of District residents, their families and communities through business and economic development. The University, through the Cooperative Extension Service, is well positioned to insure that District residents receive the critical information, skills and support services needed to successfully address obstacles to improving the quality of their lives, to becoming involved in lifelong learning, and to becoming competitive in the world marketplace.

Outcomes:

• The total number of articles reviews annually on business trends, techniques, and human interest stories made available in summary forms monthly, to groups working with targeted individuals

• The total number of monthly summaries on business information made available to the targeted audience, through The Cooperative Extension Service's support network.

Contact

Gordon A. White, Extension Specialist Community Resources Development University Of the District Columbia DC Cooperative Extension Service 4200 Connecticut Avenue, NW Washington, DC 20008 Voice Phone: (202) 274-7126 Fax Phone: (202) 274-7130 Email: gwhite@udc.edu

Theme: Family Reources Program: LifeSmarts

Method: LifeSmarts is a creative way for young people to learn about consumer and marketplace issues. By using a game show format, similar to the game shows "It's Academic and Jeopardy," This competitive activity encourages youth to learn some of the fundamentals of personal financial management, health and safety, the environment and technology, and consumer rights and responsibilities. This competitive program fills a void that is present for those youth venturing out into the world. The program provides them with some of the tools they will need in real life.

Outcomes: We will increase the number of participants from our under served population by 10% a Year. CES will develop and circulate a quarterly newsletter will develop and present a PSA to channel 19 advertising the program to a broader population.

Cost: 30,000	FTE: 0.5
CONTACT	

Rebecca Bankhead, Extension Agent Family & Consumer Sciences University of the District of Columbia DC Cooperative Extension Services 4200 Connecticut Avenue, NW Washington, DC 20008 Voice Phone: (202) 274-7081 Fax Phone: (202) 274-7130 Email: rbankhead@udc.edu

Program: Family Resource Management

Method: Classroom Instruction

Outcomes: The number of persons completing non-formal financial management education programs, the number of these persons who plan to adopt one or more recommended practices to decrease consumer credit debt or increase savings, and the total number of these persons who actually adopt one or more recommended practices to decrease consumer credit debt or increase savings within six months after completing one or more of these programs.

Cost Estimate: 20,000 FTE: 0.5

CONTACT

Rebecca Bankhead , Extension Agent Family & Consumer Sciences University of the District of Columbia DC Cooperative Extension Services 4200 Connecticut Avenue, NW Washington, DC 20008 Voice Phone: (202) 274-7081 Fax Phone: (202) 274-7130 Email: rbankhead@udc.edu

Mayola Mason, Extension Agent Family & Consumer Sciences University of the District of Columbia DC Cooperative Extension Service 4200 Connecticut Avenue, NW Washington, DC 20008 Voice Phone: (202) 274-7087 Fax Phone: (202) 274-7130 Email: mmason@udc.edu

Program: Parenting Education and Senior Issues

Method: Classroom instruction and demonstration

Outcomes: The total number of persons completing non-formal education programs on parenting, the total number of these persons who plan to adopt one or more parenting principles, behaviors, or practices, and the total number of these persons who actually adopt one or more parenting principles, behaviors, or practices within six months after completing one or more of these programs.

Cost: 10,000 FTE: 0.2

Contact

Mayola Mason, Extension Agent Family & Consumer Sciences University of the District of Columbia DC Cooperative Extension Service 4200 Connecticut Avenue, NW Washington, DC 20008 Voice Phone: 202/274-7087 Fax Phone: 202/ 274-7130 Email: mmason@udc.edu

Theme: Housing and Environment ConservationProgram:Energy Conservation and Home Repair

Methods: Fact sheets, videos, newsletters, and hands-on workshops to assist District residents with minor home repairs and energy conservation measures. Hands-on workshops are provided at two levels, basic workshops, and advance workshops. Basic workshop topics include: toilet tank repair, leaky faucet repair, wall repair, basic tools, and basic electricity. Working Homeowner program offers advance workshops in such topics as: faucet replacement, toilet replacement, installing a garbage disposal, painting, installing door locks, and changing light fixtures.

Outcomes: The total number of individuals including homeowners, apartment owners or renters who will complete non-formal education programs on basic home repair, the total number of these homeowners apartment owners or renters who plan to adopt one or more recommended practices in basic home repair, and the total number of these homeowners, apartment owners or renters who actually adopt one or more recommended practices in basic home repair, and the total number of these homeowners, apartment owners or renters who actually adopt one or more recommended practices in basic home repair one or more recommended practices in basic home repair within six months after completing one or more topics.

Cost Estimate: 125,000 FTE: 1.5 Contact:

Samuel W. Robertson, Extension Specialist Community Resource Development/Technical University of the District of Columbia DC Cooperative Extension Service 4200 Connecticut Avenue, NW Washington, DC 20008 Voice Phone: (202) 274-7165 Fax Phone: (202) 274-7130 Email: srobertson@udc.edu

Program: Healthy Indoor Air Quality

Method: Indoor air quality project will educate consumers on how to improve the quality of indoor air. Newsletters, fact sheets, fliers, and workshops will provide awareness of indoor air issues relating to carbon monoxide, lead, radon, mold, and children and second-hand smoke.

Outcomes: The total number of consumers completing non-formal education topics concerning healthy indoor air, the total number of consumers who plan to adopt one or more recommended practices relating to health indoor air, and the total number of consumers who actually adopt one or more recommended practices relating to healthy indoor air within six months after completing one or more topics.

Cost Estimate: 125,000 FTE: 1.5

Contact:

Samuel W. Robertson, Extension Specialist Community Resource Development/Technical University of the District of Columbia DC Cooperative Extension Service 4200 Connecticut Avenue, NW Washington, DC 20008 Voice Phone: (202) 274-7165 Fax Phone: (202) 2724-7130 Email: srobertson@udc.edu

The **Center for the Study of Cooperatives**, established within DC Cooperative Extension in 1994 will continue to provide educational leadership to various entities in the District, such as housing cooperatives and tenants associations. The University dedicated the C. H. Kirkman, Jr. Resource Library for Cooperatives to support the Center's activities. The Kirkman Resource Library will serve the east coast of the United States and joins the two other Resource Libraries at the University of Wisconsin and the University of California.

Cost Estimate: 30,000 FTE: 0.2 Contact Gordon White, Head Center for the Study of Cooperatives University of the District of Columbia DC Cooperative Extension Service 4200 Connecticut Avenue, NW Washington, DC 20008 Voice: (202) 274-7126 Plan of Work Update 2003 - 2004 District of Columbia FAX: (202) 274-7130 Email: gwhite@udc.edu

2.3 Multistate Research and Extension Activities

Goal 2: A Safe, Secure Food and Fiber System

Project: Post Harvest Physiology of Fruits

Statement of Issue:

There is a need to improve and create new technologies to assure high quality and wholesomeness of fresh cut fruits and enhance market opportunities.

Method: Identify fundamental physiological, biochemical, and genetic phenomena that will be useful in developing improved technologies, as well as, investigate practical applications of new knowledge to solve post harvest problems.

Outcomes:

- Improve and develop new technologies for fruit handling, storage, packaging, shipping, and marketing.
- Improve control of ripening, senescence, suppression or elimination of physiological and pathological disorders.
- Modification of atmosphere packaging applications in the market place.
- Identify phenomenon associated with preservation and/or deterioration of post harvest quality that will be used in industry throughout the US and the world.

This Northeast Multi-state Research Project (NE-103) involves eleven state land grant institutions, three federal laboratories, and three Canadian Provinces as follows:

University of the District of Columbia
University of California
University of Georgia
University of Maryland
University of Massachusetts
Michigan State University

USDA/ARS - Beltsville, MD Lane, OK Wenatchee, WA

Canada - Summerland, BC Guelph, Ontario Cornell University Oregon State University Pennsylvania State University Washington State University North Carolina State University Kentville, Nova Scotia

Cost Estimate: 20,000 FTE: 0.5 Contact:

Dr. Yuen S. Lee, Project Leader Agricultural Experiment Station University of the District of Columbia Department of Biological and Environmental Sciences 4200 Connecticut Avenue, NW Washington, DC 20008 Voice Phone: (202) 274-5946

Goal 3: A Healthy, Well Nourished Population

Project: Nutritional Risk and Antioxidant Status in the Elderly

Statement of Issues:

As Americans grow older, a large percentage of individuals 65 years and older may be at risk for malnutrition. Major nutrition related diseases such as heart disease, cancer, diabetes, hypertension, and stroke often manifest themselves in the senior years. Research is essential in obtaining an understanding of the role that knowledge and attitudes play in determining dietary and other health related behaviors. Studies indicate that certain foods (e.g. fruits and vegetables) and dietary constituents (e.g. antioxidants) found in fruits and vegetables may play a protective role in reducing oxidative damage that occurs throughout the life span. The consumption of fruits and vegetables has been associated with lower incidence and lower morbidity and mortality rates of the major chronic diseases.

Method: To target appropriate interventions, research is needed on elder food practices and food group patterns that are related to antioxidant intake and status. Such interventions may improve food choices, promote health, and reduce the risk of chronic diseases.

Outcomes/Impact:

- Identify interactions of individuals with circumstances and environment, and perform future quantitative analyses.
- Compile extensive and useful profile of nutritionally at-risk elderly individuals.
- Design public health interventions that may improve food choices; promote general health; and reduce the risk of chronic diseases.

Data collected in this study lead to the delineation of specific connections among behaviors and attitudes; nutritional and dietary implications; and resulting health consequences. Awareness of these connections will lead people to food choices which result in reduced incidences of nutrition related morbidity and mortality.

Cost Estimate: 40,000 FTE: 0.5 Contacts

Dr. Charles Jiles, Project Leader Agricultural Experiment Station University of the District of Columbia Department of Biological and Environmental Sciences 4200 Connecticut Avenue Washington, DC 20008 Voice Phone: (202) 274-5890 Fax Phone: (202) 274-7119

Dr. William Rice Agricultural Experiment Station University of the District of Columbia Department of Mathematics 4200 Connecticut Avenue Washington, DC 20008 Voice Phone: (202) 274-5508 Fax Phone: (202) 274-7119

2.4 Integrated Research and Extension Goal 2: A Safe, Secure Food and Fiber System

Project: Post-Harvest Physiology of Fruits

Outcomes:

1. The total number of AES research documents developed into educational materials/informational bulletins by CES at an appropriate reading level for residents of the District of Columbia.

2. The total number of persons completing non-formal education programs through CES on the quality and safety of fresh cut produce (e.g mangoes, apples, pears, peaches, persimmons) on data from AES research project, the total number who plan to adapt one or more practices, and the total number who actually adopt one or more practices.

Contact:

Usha Kalro , Extension Specialist/Nutrition and HealthUniversity of the District of ColumbiaDC Cooperative Extension Service4200 Connecticut Avenue, NWWashington, DC 20008Voice Phone: (202) 274-7115Fax Phone: (202) 274-7130

Goal 3: A HEALTHY, WELL NOURISHED POPULATION

Project: Nutritional Risk and Antioxidant Status in the Elderly

Method: To annually reduce the health risk factors of the elderly through non-formal educational programs to improve dietary habits and health related behaviors in which CSREES partners and cooperators play an active research, education, or extension role.

Outcomes:

- The total number of AES research documents developed into educational materials/informational bulletins by CES at an appropriate reading level for residents of the District of Columbia.
- The total number of elderly completing CES non-formal nutrition and health educational programs on better management of health risk factors (e.g., obesity, hypertension, diabetes, cancer, etc.), the total number of these persons who plan to adopt one or more recommended nutrition practices to reduce health risks, and the total number of persons who actually adopt one or more recommended nutrition practices to reduce health risk factors to reduce health risk factors within six months of completing one or more of these programs.
- The total number of elderly completing CES non-formal nutrition education programs that provide dietary guidance to the elderly customers, the total number of elderly who plan to adopt one or more recommended dietary guidelines, and the total number of elderly who actually adopt one or more recommended dietary guidelines with six months after completing one or more of these programs.

Cost Estimate: 10,000 Contact FTE: 0.3

Usha Kalro, Extension Specialist/Nutrition and Health University of the District of Columbia DC Cooperative Extension Service 4200 Connecticut Avenue, NW Washington, DC 20008 Voice Phone: (202) 274-7131 Fax Phone: (202) 274-7130 Email: ukalro@udc.edu

Program: Adopt-A-Block, a partnership effort between the AES/CES, the Fannie Mae Foundation, Giant Supermarkets, Keep America Beautiful, and the Executive Office of the Mayor.

Implementation: Adopt-A-Block is a litter prevention program and beautification service along the main access routes into the District of Columbia. Martin Luther King Jr. Avenue was the first "block" identified for the program. Other access corridors will be addressed during the remaining years of this POW.

Outcomes/Impacts: The program kick-off resulted in partnerships with six D.C. Public Schools to participate in the community development effort. Area residents, businesses, AES and CES staff, and community organizations worked diligently together to participate in one of many scheduled activities to keep the District of Columbia beautiful. This effort will be the driving force to foster public awareness and participation in "Polishing America's Crown Jewel," Washington, D.C.

Cost Estimate:	\$90,000	FTE:	.5
Contact:			

Dr. Gloria S. Wyche-Moore, Associate Director Agricultural Experiment Station University of the District of Columbia 4200 Connecticut Ave., N.W. Washington, DC 20008 Voice: (202) 274-7124 Fax: (202) 274-7113 Email: gwychemo@udc.edu

Program: Soil Fertility and Testing

Implementation: As a response to the soil testing needs of the urban gardeners of the District of Columbia, the Agricultural Experiment Station in collaboration with the Cooperative Extension Service will continue to provide soil testing at the University Environmental Science Laboratory for District residents. Analysis will determine the basic fertility levels, and possible toxic levels of inorganic chemicals, of lawn and garden soils. The laboratory is equipped to analyze soil samples for levels of heavy metals. At this point, soil samples submitted by gardeners to the laboratory are tested for levels of the following components: Organic matter; pH; Potassium; Heavy metals – Cadmium, Copper, Iron, Nickel, Lead and Zinc; and Cation Exchange capacity.

Outcome/Impact: Tested and analyzed soil can be treated to increase fertility levels and/or to decrease inorganic chemicals if necessary.

Cost Estimate: 50,000 FTE: 1.2

Contacts:

Dr. James R. Allen, Project Director Agricultural Experiment Station University of the District of Columbia 4200 Connecticut Avenue, NW Washington, D.C. 20008 Voice: (202) 274-7140 Fax: (202) 274-7119 Email: jallen@udc.edu

Dr. Robert Hamilton, Extension Specialist DC Cooperative Extension Service University of the District of Columbia 4200 Connecticut Avenue, NW Washington, DC 20008 Voice: (202) 274-7122 Fax: (202) 274-7130 Email: rhamilton@udc.edu

3.0 STAKEHOLDERS INPUT FOR FY 2003 - 2004

The Advisory Board is the primary stakeholders group from which the AES and CES receive input about current and future projects, programs, and activities to serve and engage the residents of the District. The Board consists of two persons from each Ward of the City who were recommended to the Dean/Director for appointment by the City Councilors from each of the eight wards. There are eight at-large Board members appointed by the Dean/Director.

The Advisory Board's function is to assist AES and CES in identifying program needs and enhancements to better serve the needs of the residents of the District of Columbia. The Advisory Board meets quarterly. They have assisted AES and CES in identifying specific areas of interest under the five major goals of the Plan of Work.

Additionally, a Stakeholder's Survey Questionnaire is distributed to city residents either on a one-on-one contact or when meeting with groups. This allows the stakeholder to provide input by identifying some of the needs that they would like us to address. The surveys are reviewed for possible activities that can be created or incorporated into projects to meet residents' needs. Stakeholders also provide input by participating in workshops and field days. At these events they present problems they have encountered and as a result, researchers try to incorporate and experimental design to find solutions to the stakeholders' problems. Participants are also given the opportunity to provide comments regarding ongoing activities and recommend possible

CES uses an open process to seek stakeholders' input. During the meetings stakeholders provide CES & AES with information on the types of programs needed and where these programs should be located with special emphasis on underserved and underrepresented individuals, groups, organizations and communities.

During a regularly scheduled quarterly meeting of the Advisory Board, the following topics were recommended for future development during the duration of this Plan of Work:

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

• Geological Information Systems and Global Positional Systems

GOAL 2: A Safe and Secure Food and Fiber System

• Food Accessibility and Affordability

GOAL 3: A Healthy, Well-Nourished Population

• Human Nutrition

GOAL 4: Greater Harmony Between Agriculture and the Environment

- Water Quality
- Air Quality

GOAL 5: Enhanced Economic Opportunity and Quality of life for Americans

- Child Care/Dependent Care
- Workforce Preparation
- Youth Development

4.0 Planned Projects, Programs, and Initiatives

4.1 Agricultural Experiment Station

Project: Urban Gardening : "Gardening for Health and Profit"

Method: Guidance and Instruction using Master Gardeners

Outcome: A public garden in every ward where citizens grow vegetables through sustainable agricultural techniques for themselves and others. Instruction in sustainable agricultural techniques and

Cost Estimate: 168,000 FTE: 1.0

Project: "Global Positioning System/Geographic Information Systems"

Method: Classroom training and field demonstrations

Outcome: Identify and develop GPS/GIS project related to demographics and distribution of the population within the District. An aspect of this research will involve the training of university students in GPS/GIS applications.

Cost Estimate: \$225,000 FTE: 1.0

Project: "Achievement in Developmental Courses: A comparative analysis"

Method: Before/after experiment with assessment instrument. A study of the effectiveness of two techniques on the achievement of university students enrolled in developmental Mathematics and English courses.

Outcome: Technique is identified which has the best outcome in student achievement.

Cost Estimate: \$160,632

FTE: 0.5

Contact:

Roland E. Holstead, Ph. D. Director, DC Agricultural Experiment Station Director, DC Cooperative Extension Service University of the District of Columbia 4200 Connecticut Avenue NW Washington, DC 20008 Voice: 202-274-7100 FAX: 202-274-7016 Email: rholstead@udc.edu

4.2 Cooperative Extension Service

Youth Development Programs (Youth at Risk)

Program: "A Day in your Future Life"

Method: 400 Hundred High School Seniors spend a day (9:00 - 3:00) at the University, a day at a work place, and a day in the military.

Outcome: Participants will be able to identify direction and choice for post graduation.

Cost Estimate: \$162,000 FTE: 0.5

Program: "Academic Achievement through Athletics"

Method: 100 ninth, tenth, or eleventh grade non-athletes are taught the business of Golf and the discipline it brings to academic achievement.

Outcome: Improved academic performance

Cost Estimate: 102,000 FTE: .5

Nutrition and Food Safety

Program: "Healthful and Safe Food in Your Home"

Method: Non-credit classes about nutritious meals and food safety

Outcome: 1000 at-home care givers and senior citizens.

Cost Estimate: \$60,000 FTE: 1.0

Community Leadership Development

Program: "Community Leadership for Civic Leaders"

Method: A non-credit ninety hour course for 120 elected and appointed officials, including a computer simulation of community and economic development.

Outcome: Improved government leadership

Cost Estimate: \$120,000 FTE: 1.5

Adult Literacy

Program: "High School Completion to College Entrance" Method: Classroom instruction using computer assistance

Outcome: 100 out of school youth complete high school (on-line) and apply for college entrance.

FTE: 2.0

Contact:

Roland E. Holstead, Ph. D. Director, DC Agricultural Experiment Station Director, DC Cooperative Extension Service University of the District of Columbia 4200 Connecticut Avenue NW Washington, DC 20008 Voice: 202-274-7100 FAX: 202-274-7016 Email: rholstead@udc.edu

5.0 PROGRAM REVIEW PROCESS

The Dean/Director is committed to program review for the purposes of assessing relevance, measurable outcomes, and impact on the residents of the District of Columbia. This commitment will be implemented during FY 2003.

AES/CES uses a merit review for its educational programs. The stakeholders, the professional employees, and external evaluators undertake the merit review. Scientific research is peer reviewed.

The Dean/Director has invited a Program Review Team from CSREES to visit the campus to review research projects of the AES and program and activities of the CES is scheduled for December 2002.

6.0 Summary

The final two years of this Plan of Work will witness a continuation of most existing research projects and program activities. New research and program initiatives will be directed toward the development of Children, Youth, and Family in response to stakeholder input.

The AES and CES endeavors to adapt CSREES goals and programs to the urban environment and will continue to do so as provided in this update.

Stakeholder input will be increased through self-administered questionnaires to residents.

Greater attentiveness to program evaluation will be achieved.

The prospect of growth in both multistate projects and integrated programs is high. It is

expected that both AES and CES will experience program and personnel growth over the next two fiscal years as a full state dollar match is achieved.

CIVIL RIGHTS AND PROFESSIONAL DEVELOPMENT PROGRAM

Equal Employment Opportunity

The District of Columbia's Agricultural Experiment Station and Cooperative Extension Service at the University of the District of Columbia is committed to continued compliance with all applicable Federal and District laws with regard to affirmative action and equal employment opportunity. It is the intent to hire the best-qualified person while affirming the value of diversity in the workplace; broadly mirroring the residents (stakeholders) of the District of Columbia will continue to be sought; Asian: 2.0%; Black/African-American: 60.0%; Hispanic: 8.0%; White: 30.0.

To enhance equal employment opportunity for under-represented groups within the Division, employment opportunities will be advertised in a variety of media. In accordance with the Americans with Disabilities Act, reasonable accommodations will be provided for the physically challenged.

Equal Educational and Training Opportunities

The DC Agricultural Experiment Station and DC Cooperative Extension Service recognize the importance of investing in the development of professional and support staffs. Therefore, AES/CES is committed to providing opportunities for employees to improve knowledge, skills, and abilities. All employees will be provided reasonable opportunity to receive training based on needs identified by supervisors and/or career development requested by the individual without regard to race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, marital status or family status.

Supervisors in AES/CES will continue to seek ways to serve the most immediate needs of employees on the job through personal counseling and advisement. A training program sponsored by the District Government Center for Workforce Development in collaboration with the UDC Department of Continuing Education, will be utilized to provide employees with a wide array of skills training opportunities.

A Development and Training Committee comprised of seven staff members from both the AES and CES will continue to identify appropriate training opportunities. A Staff Development and Training Manual was published during the POW FY99-04. This manual will inform employees about the policies and opportunities for staff development, education and training throughout the University, the U.S. Department of Agriculture, and from other sources, including conferences.

During Fiscal Year 2003 AES/CES will continue the Annual Training Retreat. A committee of staff members will work together to plan the retreat. The retreat is expected to provide training activities that will reenergize the CES/AES staffs and reinforce a commonly held sense

Plan of Work Update 2003 - 2004 District of Columbia of direction, knowledge and understanding of the shared vision, mission, values, and goals of AES projects and CES programs.

Equal Opportunity Program Delivery

It is the intent of the administration that DC Agricultural Experiment Station projects and DC Cooperative Extension Service programs will be offered to all people in the District of Columbia regardless of race, national origin, gender, religion, age, disability, political beliefs, sexual orientation, marital status or family status. A statement to that affect will be displayed on all materials released to the public by AES/CES.

Program adaptations to increase participation of underrepresented, at-risk, underserved, and special needs groups will include recruitment announcements for membership in advisory groups for both Extension and Research services. These announcements will be circulated in all forms of print and electronic media as budget constraints permit. Program announcements will be distributed in communities and at varied locations that serve target populations, and meetings and activities will be held at locations accessible to them

Participants of under-represented and target groups serving on program planning and advisory committees will also be encouraged to meet with program staff to discuss matters of concern to the groups they represent. Efforts will be made to conduct research and develop programs that directly address areas of need and interest to various groups.

Public Notification

The District of Columbia's Agricultural Experiment Station and Cooperative Extension Service will make special efforts to increase awareness of our programs among all residents of the District of Columbia. A wide variety of advertising media will be employed to accomplish this goal as funds permit.

Organizations, associations, groups and clubs with whom AES/CES interface to provide services to the community will receive written notification of our nondiscriminatory policy annually. Each entity will be required to provide assurance that they do not practice any form of discrimination based on race, color, national origin, religion, gender, age, sexual orientation, or disability.

DC AES and DC CES will develop brochures that list current program offerings along with telephone numbers that can be called for additional information. Copies of the Annual Accomplishment Reports will be made available to the public. Accomplishment Reports address how critical problems facing our program participants have been resolved and photographs and graphics that demonstrate the representative diversity in culture, gender, age,

race, and disability among program participants and staff. Every document that is released to the public will contain the Civil Rights disclaimer statement.

Civil Rights Training

The AES and the CES are committed to keeping the entire staff informed about Civil Rights

issues as they relate to planning, conducting and researching educational programs, activities and issues affecting the lifestyles of the citizens of the District of Columbia.

The University of the District of Columbia's Office of Human Resources, has an Employee Assistance Program as well as Equal Employment Opportunity and Affirmative Action Programs that are explained to new employees during their orientation. The AES/CES Special Assistant for Civil Rights explains civil rights requirements as they relate to the implementation of Extension and Research programs. Each new employee will receive an Orientation Packet containing information concerning employment policies and rights.

The Training Schedule for FY 2003-2004 is as follows:

2003 - Community Outreach2004 - The Americans with Disabilities Act

On-Site Civil Rights Compliance Review

On-site Civil Rights Compliance Reviews are used to determine the extent to which Research and Extension programs are in compliance with Executive Orders, Department of Justice regulations enforcing nondiscrimination requirements, Departmental and Agency Regulations, Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, the University of the District of Columbia's Affirmative Action Plan and other applicable Civil Rights rules and regulations. To that end, no person shall, on the grounds of race, color, national origin, gender, sexual orientation, disability or age shall be excluded from participation, be denied the benefits of, or be subject to discrimination under any Cooperative State Research, Education and Extension (CSREES) programs or activities.

An On-Site Civil Rights Compliance Review will be undertaken during December 2002.

CLIENTELE PROJECTIONS FOR EACH FISCAL YEAR REMAINING IN POW

Race/ Ethnicity	White Not of Hispanic Origin	Black Not of Hispanic Origin	Hispanic	Asian	Total
Service	36,000	72,000	9600	3240	120,000
Target	30.0%	60.0%	8.0%	2.0%	100%

Male	Female	Total
48,000	72,000	120,000

CONTACTS

Roland E. Holstead, Ph.D., Dean Director, Agricultural Experiment Station Director, Cooperative Extension Service University of the District of Columbia 4200 Connecticut Avenue, NW Washington, DC 20008 Voice: (202) 274-7011 Fax: (202) 274-7116 Email: rholstead@udc.edu

Juanita Hartsfield Hazel, Special Assistant, Civil Rights DC Cooperative Extension Service University of the District of Columbia 4200 Connecticut Avenue, NW Washington, DC 20008 Voice: (202) 274-7120 Fax: (202) 274-7130 Email: jhazel@udc.edu