



UNIVERSITY OF  
THE DISTRICT  
OF COLUMBIA



# **DISTRICT OF COLUMBIA**

**COOPERATIVE EXTENSION SERVICE**

**AGRICULTURAL EXPERIMENT STATION**

**FY 2006**

**JOINT ANNUAL REPORT**

**OF**

**ACCOMPLISHMENTS AND RESULTS**

**April 1, 2007**

**UNIVERSITY OF THE DISTRICT OF COLUMBIA**

**District of Columbia**

**Cooperative Extension Service and Agricultural Experiment Station**

**FY 2006 JOINT ANNUAL REPORT OF ACCOMPLISHMENT AND RESULTS**

**TABLE OF CONTENTS**

	<b>Page</b>
Introduction	2
A.    FY 2006 Annual Report of Accomplishments and Results	3
B.    Stakeholder Input Process	23
C.    Program Review Process	24
D.    Evaluation of the Success of Multi and Joint Activities	26
E.    Multi-state Extension Activities	26
F.    Integrated Research and Extension Activities	28
Civil Rights Annual Accomplishment Report	32
Multi-state Extension Activities and Integrated Activities – Appendix C	36

**District of Columbia  
Cooperative Extension Service and Agricultural Experiment Station**

**FY 2006 JOINT ANNUAL REPORT OF ACCOMPLISHMENT AND RESULTS**

**INTRODUCTION**

The DC Agricultural Experiment Station remains persistent in its efforts to conduct relevant and quality research, investigations, and experiments, addressing critical issues in the totally urban environment of our nation's capital. Like most cities, residents are concerned with matters related to health, nutrition, crime, education, literacy, self-sustainability, sustainable neighborhoods, urban greening, conservation, water quality, and housing. The Agricultural Experiment Station undertakes problems and issues identified by the Mayor as the priorities for the District of Columbia. Priorities for the city government of the District of Columbia include 1) Strengthening Children, Youth, Families and Individuals; 2) Building and Sustaining Healthy Neighborhoods; 3) Promoting Economic Development; 4) Making Government Work; and 5) Enhancing the Unity of Purpose and Democracy. Additionally, AES responds to strategic goals set by USDA. The current focus of the Agricultural Experiment Station's Research Program is in the areas of health and nutrition, obesity, cancer prevention, asthma, youth violence, sustainable agriculture, urban gardening, environmental and water studies, environmental stewardship, soil amendment and conservation, and academic enhancement (literacy, environmental science, and mathematics).

The DC Agricultural Experiment Station continues to work closely with the Cooperative Extension Service as an effort to form viable joint/integrated projects and to develop effective strategies that lead to an improved society in the Washington, DC area. AES has increased its efforts to engage stakeholders through hosting environmental conferences, providing information via the University's website and printed Information Documents, promoting dialogue with upper level administration and academic departments to discuss opportunities for joint appointments, internal and external partnerships, and the development of the research farm in Beltsville, MD, and seeking opportunities to work with DC Public Schools and other DC agencies to explore ideas for joint projects and activities. AES continues to work with other academic institutions across the country to participate in multi-state research that addresses national issues, specifically food, nutrition, and health.

The Cooperative Extension Service continues to provide innovative educational services to our various ethnic and cultural stakeholders for the enhancement of the quality of life for all. A new AES/CES Joint Plan of Work for FY2007-2011 was completed, successfully submitted and approved by the Cooperative State Research Education Extension Service. A new accountability and productivity tool for assessment has been developed for CES. Program staffs have been trained and are slowly becoming acclimated to this new reporting system. This instrument provides an opportunity to self assess program activities, informational materials, and contacts from an individual, unit, and overall departmental perspective. This new mechanism of accountability also provides access to data for external reporting and performance measures.

All CES units have forged strong partnerships with private and public, local and regional, agencies, organizations and businesses, enabling us to provide collaborative, creative and pertinent educational opportunities for our stakeholders. The DC Cooperative Extension Service has expanded all of its programs with the hiring of committed professionals and strong resource assistance to support family and community development, consumer and financial knowledge and skills, nutrition and health, youth development, water quality, urban pest management, horticulture, and reading literacy. Both AES and CES are collaborating on integrated, multi-institutional and multistate projects in an effort to build a closer relationship with the residents of the District of Columbia.

## **A. FY 2006 ACCOMPLISHMENTS AND RESULTS**

### **GOAL I: AN AGRICULTURAL SYSTEM THAT IS HIGHLY COMPETITIVE IN THE GLOBAL ECONOMY**

#### **Overview**

Urban Agriculture in the District of Columbia includes horticulture, specifically, urban gardening and urban greening. There is a high-demand for vegetable and ornamental gardening, lawn maintenance, and neighborhood beautification ventures. Findings from the Agricultural Experiment Station, coupled with Master Gardener and Junior Master Gardener Programs in the Cooperative Extension Service, have provided hundreds of DC residents with pertinent information and techniques to assist them in cultivating home and community projects. Further, specific training in gardening programs has resulted in the enhancement of urban agricultural services to stakeholders and the cultivation of corporate relationships with agencies.

#### **Key Theme: Urban Gardening**

**a. Description:** The Master Gardener Program and The Junior Master Gardener Program exposes adults and youth to principles of horticulture to increase awareness and educational opportunities through the study of agriculture. The Junior Master Gardener Program provided urban youths with hands-on horticultural skills, training, and environmental experiences that instilled a sense of empowerment and accomplishment. The overall objective of the Master Gardener Program is to train Washington, D.C. citizens to be resources in their communities for gardening expertise. CES certifies Master Gardeners in the community to increase its outreach capacity by providing a level of valuable horticultural education for individuals and a foundation for beautification of the District of Columbia. In partnership with University of Maryland, Virginia Tech University and the Washington Metropolitan Transit Authority (WMATA), DC Cooperative Extension Service coordinated and facilitated a three week Advanced Landscape Training for the WMATA employees.

**b. Impact:** Five hundred and sixty-two (562) Junior Master Gardeners had their own outdoor vegetable garden plots to plant, maintain, and harvest. The garden harvests were shared with family, as well with the DC Central Kitchen, where the homeless shelters in the District of Columbia received their food. Forty (40) Master Gardeners were trained and certified at UDC. Master Gardeners provided 1,860 hours of horticultural expertise to the District of Columbia. Sixty (60) landscape employees of the Washington Metropolitan Transit Authority (WMATA) were trained. The training is mandatory for employees who wish to be promoted. Approximately

five (5) WMATA employees were promoted after the mandatory training. Because of the impact of this training, the UDC CES Horticulturalist has been contracted on an annual basis by the WMATA to provide their employees with Advanced Landscape training.

- c. **Funding:** Post Secondary Education Funds; Matching Funds; Fee Based Training
- d. **Scope:** State Specific

**Key Theme: Home Lawn and Gardening**

a. **Description.** The lawns and gardens of District residents are exposed to a variety of environmental substances and conditions that have affected the residents' quality of life. This program provided technical assistance to homeowners, renters, and neighborhood associations. Direct technical assistance and instruction was provided through residential and commercial site assessment visits, soil testing, telephone consultations (1,140 phone calls) and other educational methods.

b. **Impact:** It is estimated by the Director of Toxic Substance Division, DC Department of Health that this program impacted approximately two hundred thousand (200,000) residents and transients traveling on the streets within the treated sites. Qualitative assessment indicates that the impact of these improvements was evident through the personal and community pride reflected by residents, neighbors, and the community volunteers who undertook the work by contributing in excess of 1,860 hours.

- c. **Funding:** Post Secondary Education Funds; Matching Funds
- d. **Scope:** State Specific

**GOAL II: A SAFE, SECURE FOOD AND FIBER SYSTEM**

**Overview**

The **District of Columbia Food Handler Certification Program Model Project** provides training for low literacy and hard-to-reach food handlers in the District of Columbia to gain national certification as food protection handlers/managers. This certification program allows the local Department of Health to comply with the 2001 Federal Food Code. The project is also designed to develop a model program for the District of Columbia and national-wide replication. Improvement of food handler's behaviors and food handling practices that directly relate to food-borne illnesses will serve to deter the incidence of this critical health threat. It will also improve the confidence of stakeholders and consumers, and ensure the health of an international audience of customers coming and going in the Nation's Capital as well as residents in the metropolitan Washington area.

Post Secondary Education Funds, Matching, and other Federal Funds Grant Funds were expended on this goal at the cost of \$103,155. A full time equivalent of 1.25 personnel was utilized to support this goal.

**Key Theme: Food Handling**

a. **Description:** The **District of Columbia Food Handler Certification Model Program Combined Research and Education Project** assessed the food handler needs and developed a preparatory Extension education program to increase the incidence and success of low-literacy and hard-to-reach food handlers in passing the national food protection manager and limited food

protection manager certification examination. The project was funded for 100 participants. To date 458 participants from 194 community-based agencies and organizations are included in the project. During the current fiscal Year 2006, an additional 292 individuals were added from 132 community-based agencies and organizations.

**b. Impact:** For fiscal year 2006, there were 292 new project participants from 132 community-based agencies and organizations. 100% of the participants passed the National Certification Examination. 99.19% of the participants passed the DC Code Examination.

**c. Source of Funding:** United States Department of Agriculture (USDA), Cooperative State Research, Education, and Extension Service (CSREES); this is the fifth year of the \$300,000.00 project. Additional funding to support the program is generated through fee for service. During Fiscal Year 2006 approximately \$22,000.00 were generated.

**d. Scope:** State Specific

### **Goal III: A HEALTHY, WELL-NOURISHED POPULATION**

#### **Overview:**

Interdisciplinary research is being conducted at the University of the District of Columbia to develop an innovative and advanced method for finding diabetes associated with genes using gene expression data. The diabetes associated genes may be used to predict the disease and also to develop new therapeutic treatments. Additional studies related to health and chronic diseases being conducted in AES include cancer (prevention) and asthma. A study in cancer prevention and control and cancer intervention is being performed to address the high incidence of cancer amongst the African American senior population (55 years and older) in the District of Columbia. Seniors have been interviewed to determine preventive methods that they may have implemented such as receiving pertinent medical examinations to include mammograms, prostate tests, and colonoscopies. Also, the literature that participants have received will be examined to determine if it was appropriate and instrumental in assisting seniors to incorporate preventive measures into their lifestyles. The high rate of asthma among children and adults in our capital city is being investigated to determine the relationship between asthma and particulate matter air pollution. In order to gain a better understanding of the interactions of alveolar macrophages with particulate matter, an in vitro model of this system is being developed.

The purpose of the CES "**Determinants to Childhood Obesity**" grant is to assist the research team in receiving training in obesity methodology and programs and develop collaboration with other institutions for the development of a research proposal to study obesity in minority populations. The proposal is scheduled to be developed and submitted for funding during the next funding cycle. A Seed Grant Program was initiated to collaborate with researchers at other local Universities to research problems associated with urban youth obesity.

The Food Stamp Nutrition Education Program is designed to improve the health and well being of District residents. The Program collaborators include the DC Departments of Social Services, Income Maintenance Administration; D.C. Department of Health, Nutrition Programs Administration; The Cooperative Extension Service, Center for Nutrition, Diet and Health; and the United States Department of Agriculture, Food and Consumer Services. The overall goal of

the program is to provide nutrition education to food stamp recipients and food stamp eligible recipients in the District of Columbia. Evidence and 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. The core elements of the Program are: Dietary Quality, Shopping Behavior/Food Resource Management, Food Security, and Food Safety. The Dietary Quality includes nutrition education in health and disease; Shopping Behavior/ Food Resource Management includes thrifty shopping, reading labels, nutritional value, menu planning, and basic cooking; Food Security includes access to an adequate supply of nutritious and safe foods; and Food Safety includes how food is handled, hand washing, refrigeration, storage temperatures, and cooking food properly.

UDC Cooperative Extension Service's "Nutrition on Demand" Program is designed to provide 'need specific' nutrition programs to the community. The growing problem of Adult and Childhood obesity has given rise to a number of chronic diseases such as Diabetes, Hypertension, Cardiac disease etc. This program aims to translate research outcomes to health outcomes. The growing cost of healthcare is a direct result of these chronic diseases, not to mention, the psychological impact on adults and children. Addressing the health concerns of the community using research based information to help bridge the knowledge gap with practical solutions, is the goal of this program.

Post Secondary Education Funds, Matching and Private Funds, and other Federal Grant Funds were expended on this goal at the cost of \$971,540 A full-time equivalent of 4.33 personnel was utilized to support this goal.

**Key Theme: Human Health**

**a. Description:** The serious complications diabetes can be associated with include heart disease and stroke, high blood pressure, blindness, kidney disease, and nervous system disease. The overall aim of this interdisciplinary research is to develop an innovative and advanced method for the prediction of diabetes outcomes using gene expression data. Since gene expression data is often uncertain (containing noise) and incomplete, the existing prediction methods, which require certain and complete patient data, can only offer incomplete or inaccurate analysis. To fill in this gap, we are working to develop a new method, Fuzzy-Inferenced Decisionmaking (FIND), based on the PI's recent research. FIND integrates techniques of pattern recognition, data mining, fuzzy inferencing and case-based reasoning to find the associations among gene expressions as well as the associations between gene expression profiles and diabetes outcomes. Thus FIND is able to predicate diabetes outcomes on incomplete and noisy data with a high accuracy.

**b. Impact:** In this project, a software tool for FIND is being developed to be applied to the available gene expression data from patients to predict individual diabetes risk and therapy outcomes. Crucial components of FIND are being investigated and developed to achieve the best prediction accuracy. Successful development of this project will greatly help to develop strategies to prevent and control diabetes and will significantly reduce the burden of diabetes on healthcare systems. Moreover, the methods developed can be applied for the prognosis of many other diseases.

**c. Funding:** Hatch

- d. **Scope:** State Specific

**Key Theme: Human Health**

- a. **Description.** The population of the District of Columbia is approximately 80% African American. Generally, African American have less access to health care facilities, are most likely to be without health insurance, have lower income, less educational achievements, and different cultural beliefs and attitudes about health practices. These factors may be the reason why the cancer burden for the District of Columbia is the greatest in the nation. The types of cancer most likely to affect African Americans are colorectal, prostate, lung, and breast cancers. In an attempt to address the cancer burden among the African American community in general, and that of DC in particular, this research is being conducted with the overall goal of cancer prevention and control in the African American population of the District of Columbia.
- b. **Impact:** Focus groups are being conducted at area churches and senior centers to determine the sources that are responsible for the views of the participants and to examine those sources to determine if they are culturally sensitive and linguistically appropriate for the African American senior population in the District of Columbia. Qualitative data analysis to analyze transcripts of taped focus group sessions will be employed and emerging themes will be used to suggest or design appropriate literature and a series of featured activities on cancer prevention and control. Four appropriate featured activities will be implemented at each focus group site as an intervention and at each featured activity at least 30 participants will be selected to follow for a period of one year. This project will contribute toward the alleviation of the heavy cancer burden experience by the African American senior population of the District of Columbia by determining their needs and providing the proper literature, featured activities, and proper intervention.
- c. **Funding:** Hatch
- d. **Scope:** State Specific

**Key Theme: Human Health**

- a. **Description:** The high rate of asthma among the children and adults of the District of Columbia has been strongly linked to the air pollution of the city's urban environment. One form of air pollution, particulate matter, is associated with increased morbidity and mortality in patients with respiratory and cardiovascular disease, including asthma. Alveolar macrophages, the resident macrophages of the respiratory tract, are major cellular participants in the asthmatic response. In order to gain a better understanding of the interactions of alveolar macrophages with particulate matter, an in vitro model of this system is being developed.
- b. **Impact:** The first phase of this project, which is cell viability studies, is being initiated. Specifically, the objective is to develop an in vitro model of the interaction between particulate matter size and macrophages viability, a key cell type in asthma. This in vitro model can be used in the study of particulate air pollution collected from specific areas of the District of Columbia. The particulate matter can be evaluated for toxicity, allowing public health authorities to identify local high risk areas.
- c. **Funding:** Hatch
- d. **Scope:** State Specific



**Key Theme: Human Nutrition**

**a. Description:** Four critical questions are being addressed in this research include: To what extent do older adults eat quantities of fruits, vegetables, and whole grains as recommended by USDA Guidelines? What is the level of nutritional knowledge related to the health benefits of fruits, vegetables, and whole grains? How are food choices and eating behavior affected by significant life changes? How do nutritional knowledge and diagnosis of illness affect food choices and eating behavior? Previous research has provided data that indicate specific behaviors related to food and nutrient intake. Studies have also revealed that food choices of elderly adults are often determined by tradition, culture, and habit, as well as food knowledge.

**b. Impact:** Field testing, refinement, and validation has been completed for a UDC survey and cognitive interview protocol assessing motivation for nutritional choices and intake and nutritional knowledge. The instrument was field tested and validated on 10 subjects. Twenty-five (25) subjects have been identified by the Greater Washington Urban League Aging Services. Interviews of these individuals will be completed in FY 2007. It is anticipated that an additional 25 subjects will be selected from the population of men and women at the Armed Forces Retirement Home. Qualitative and discourse analysis will proceed as interviews are completed. Quantitative analysis will be done when interviews of all 50 subjects have been completed. Appropriate intervention programs will be developed to improve dietary choices related to fruits, vegetables, and whole grains with the intention of improving nutritional/health status in elderly Americans. The use of cognitive intervention as a protocol to assess nutritional choices and eating behavior in older adults in the Washington Metropolitan area will optimize nutritional information.

**c. Funding:** Multistate Research

**d. Scope:** State Specific

**Key Theme: Human Nutrition**

**a. Description:** The research training grant is designed to provide the research team with funds to fully develop the "**Determinants to Childhood Obesity Research Project** proposal for funding; to develop partnerships with other universities skilled in childhood obesity research in minority populations; to recruit leading scientists in the field of childhood obesity to join the research team; to develop written letters of agreements with scientists and appropriate agencies where the work will be conducted; and to allow the research team to gain additional expertise in childhood obesity through attendance at conferences, externships, collecting, etc.

**b. Impact:** A proposal on obesity will be developed for funding. A Seed Grant Program was initiated in collaboration with other local Universities to research problems associated with urban youth obesity.

**c. Funding:** USDA/CSREES, Initiative for Future Agriculture and Food Systems, \$75,000.00

**d. Scope:** State Specific

**Key Theme: Human Nutrition/ Human Health**

**a. Description:** The **Food Stamp Nutrition Education Program** is designed to help recipients make healthy food choices for meals purchased with food stamp dollars and WIC vouchers consistent with the most recent dietary advice as reflected in the Dietary Guidelines for Americans and the Food Guide Pyramid. Other related objectives include assessments, studies,

and education on the provision for adequate food security, food safety, shopping behavior, food resource management, diabetes, hypertension, obesity, dietary quality, system and environmental change, and dissemination of science-based, behaviorally focused nutrition and lifestyle messages to a large diverse population, using state-of-the-art techniques such as social marketing.

**b. Impact:** The UDC Food Stamp Nutrition Education (Family Nutrition Program) provided nutrition and food safety education in 7 of the 8 wards in the District of Columbia. A total of 121,448 food stamp nutrition education direct contacts were generated with individuals and 7,664 indirect contracts with households for fiscal year 2006. A total of 104 teachers participated in the Food Stamp Nutrition Education Program. Food Stamp Nutrition Education lessons were conducted at 60 sites and teacher training was conducted at six (6) sites.

**c. Funding:** The program requires a 100/50 match; grant funds were requested from the United State Department of Agriculture, Food and Consumer Services Regional Office, and the non-Federal match for this fiscal year is being provided by the DC Department of Health (DC/DOH), Nutrition Programs Office (NPO) for the Department of Health, and the United Planning Organization (UPO) Head Start and Day Care Programs on behalf of the Center for Nutrition, Diet and Health. The non-Federal dollars and In-kind match provided by the seven lead agencies were ~\$556,000.00. The CES/CNDH received \$278,000.00 in Federal funds for Fiscal year 2006.

**d. Scope:** State Specific

**Key Theme: Human Health**

**a. Description.** DC is home to a large variety of ethnic people, who are faced with the same health challenges as Americans, but with added issues such as language, transportation and affordable housing barriers. This program, in partnership with Unity Health Care Inc. and the Diabetes Wellness Foundation has set up diabetes education programs at four community clinics. Nutrition education has been provided to seniors via field trips, seminars and cooking demonstrations. DC Public Schools and charter schools have requested and received nutrition education services. Partnerships have been formed with and services provided to agencies such as the Bureau of Labor Statistics, DC Asthma Coalition, DC Department of Health, CSOSA, Project WISH, DC Cancer Coalition, DC Public Schools, UDC Institute of Gerontology-Community Residential Facility Training, DC Department of Parks and Recreation, Central Union Mission, DC Department of Parks and Recreation, NCBA Estates, and Catholic Charities. Methods of teaching include hands on activities, train-the-trainer programs, field trips, seminars, in-service training cooking demonstrations, etc. The program also participated in career, technical and health fairs. Three proposals were written in partnership with DC Department of Parks and Recreation, Health Right and Unity Health Care, Inc. A nutrition program was developed for the Keely's after school boxing camp. This camp is designed to keep youth off the DC streets and aid in providing focus towards a future activity. Seven fact sheets and one parenting catalog was developed, printed and distributed to various communities across DC. The Extension Specialist appeared on a health segment on Channel 9 and discussed the impact of portion sizes in weight loss and weight maintenance to approximately 150,000 viewers. She was interviewed by WTOP radio station to discuss the role of fat in the diet, and was interviewed by the DC Campaign to Prevent Teen Pregnancy for an article on the "Role of Nutrition in Children's Behavior."

**b. Impact:** The total number of participants in this program numbered 2442 adults and 180 children/youth. 70% of the participants in the diabetes education program decreased their blood sugars between 50 and 70 points, exercise in this group increased by 35%, 50% of the participants increased consumption of fruits and vegetables and 30% of the participants increased consumption of whole grains. The Senior Nutrition Program focused on healthy meals, herbs, fiber and whole grains, meal planning, meal preparation and food safety. Analysis of the surveys indicated that whole grain consumption had gone up by 50%, 38% more meals were being consumed at home, 40% of the participants were using herbs instead of salt to flavor meals and salads and consumption of fresh fruits and vegetables had increased by 55%. 15% of the seniors tried a new fruit or vegetable once a week. Youth participating in the Keely's program received nutrition assessments and information on the appropriate role of nutrients in increasing stamina, weight loss and overall health. Eighty-five (85) youth participated in this year round program. 85% of the participants gave up consumption of junk foods, 50% increased intake of whole grain foods, and 70% increased consumption of fruits and vegetables. This change in diet was geared towards improving the participant's performance in the ring.

**c. Funding:** Post Secondary Education; Matching Funds

**d. Scope:** State Specific

#### **GOAL IV. GREATER HARMONY BETWEEN AGRICULTURE AND THE ENVIRONMENT**

##### **Overview:**

Biosolids are nutrient rich organic materials produced by wastewater treatment and easy to obtain. Biosolids application to land conditions the land as well as fertilizes crops and other vegetation. The application of biosolids improves the physical, chemical and biological properties of the soil. Application of biosolids also increases water infiltration into the soil, increases the ability of soil to retain nutrients, increase water holding capacity of the soil, provides nutrient for plant growth and provides food as well as beneficial soil microorganisms. AES has two researchers that have been conducting experiments which have incorporated the use of biosolids. These studies were to determine the effects of biosolids compost treatment of soil on the symbioses of cowpea and effectiveness of nodulation and growth in the cowpea. Urban gardening is an instrumental means for residents of the District of Columbia to raise their own fresh, organic fruits and vegetables for consumption and/or sale.

Public health as it relates to pest management continues to be an important issue. Asthma is a growing health problem in urban areas, especially Washington DC. Nutrition, housing environment and urban pest management are collaborating on a project to reduce roach infestation and reduce the roach and rodent allergens in low-income homes with asthma incidence.

Information and education about water quality issues are critical to maintain and enhance the quality of life of residents in the District of Columbia. In January 2004, the Washington Post revealed that the D.C Water and Sewer Authority (WASA) and U.S Environmental Protection Agency (EPA) did not inform the DC residents of lead level in DC's drinking water for more than a year. Contaminated drinking water is harmful for human health. Exposure to lead contamination for example, causes reading and learning disabilities, attention deficit, liver and

kidney problems. Bacteria in water cause typhoid fever, hepatitis, cholera, dysentery diarrhea and many other health problems. The Water Quality Education Program in CES was established to serve as an unbiased monitor of DC water quality and provide education workshops and activities to prevent or minimize the reoccurrence of these problems.

Agriculture in the Classroom (AITC) continued its partnership with Cornell University's Connecting Kids to the Food Systems Initiative, Kids Growing Food (KGF) by adding 5 more DC Public Elementary Schools during this fiscal year. Since the idea of food gardening became popular, AITC decided to use KGF as an incentive for teachers to participate in this school year's after school program. Kids Growing Food is used as a hands-on component to AITC in promoting the need to lower obesity rate among DC youth. AITC in Partnership with Nutrition on Demand implemented a grant - Teachers Understanding Nutrition and Agriculture (TUNA) to reinforce healthier eating habits along with more physical activity via a teacher training pilot program. The collaboration between American Institute of Wine and Food/ DC Chapter of Days of Taste, FreshFarm Markets, AITC/KGF (added this fiscal year the National Arboretum's Youth Gardens) continued this fiscal year to bring Farmers and D.C. Renown Chefs into 4<sup>th</sup> and 5<sup>th</sup> grade classrooms aimed at enhancing the Standards of Learning and improving academic achievement.

Smith-Lever Act Funds, Matching and Private Fund, Hatch and other Federal Grant Funds were expended on this goal at the cost of \$761,854. A full-time equivalent of 4.53 personnel was utilized to support this goal.

**Key Theme: Sustainable Agriculture**

**a. Description:** When organic material is composted, it acts as a nutrient rich fertilizer. This process of recycling of biosolids would save rapidly diminishing landfill space, replenish nutrients removed from the soil during gardening, prevent soil erosion and increase water retention. In this experiment, the effectiveness of biosolids nutrients in nodulation of a very popular food and common urban garden items in the District of Columbia, *Vigna unguiculata* and *Glycine max*, prompted our laboratory to conduct a study that involved the interaction of biosolids compost application to soil used to grow the cowpea and its effect on the nodulation and growth of the plants.

**b. Impact:** The citizens of the District of Columbia can benefit greatly from information obtained from this study in reference to the increased yield of two very popular food sources. *Glycine max*, in particular, has been used to benefit the people of the District of Columbia because of its documented assistance in reducing the threat of cardiovascular disease, which is the major cause of death in the United States. Both plants, *Vigna unguiculata* and *Glycine max*, are high in fiber which is a major desirable nutrient in the fight against obesity. Additionally, the introduction of a new and beneficial strain of microorganisms was responsible for the increase nodulation and growth in these plants.

**c. Funding:** Matching Funds

**d. Scope:** State Specific

**Key Theme: Sustainable Agriculture**

**a. Description:** Field plots were established to test 10 crop varieties with two composted waste as soil amendments. The two composted waste were composted cow manure from the USDA Beltsville Agricultural Center and composted yard waste which is marketed by the Maryland Environmental Services as “Leafgro.” Commercial fertilizer (10-10-10) was used as check plots. Both the cow manure and Leafgro were applied at a rate of 30 tons per acre and the fertilizer at 350 pounds per acre. The field plot design used was a randomized block (RCBD) with three replications of treatment. Treatments (cow manure, leafgro and commercial fertilizer) were the same as blocks and vegetable varieties as sub plots. No chemical herbicides were applied to control weeds, but in early stages of the growing season a limited amount of control was achieved by periodic disking with a garden tractor. Since sustainable agricultural techniques require low inputs of pesticides, no chemicals were applied to control disease and insects. Instead, varietal resistance to varying fungal and bacterial disease and insect infestation were relied on. Yield data was collected on eight crop varieties to include bell peppers, beets, broccoli, cabbage, collards, cauliflower, sweet corn, and tomato.

**b. Impact:** This study continues to show that recycled waste such as cow manure and leafgro can be successfully used as soil amendments. Thus, by recycling our farm and yard waste, we can help to solve our waste storage problem and at the same time clean up our environment. Information transfer efforts included the development of an Information Document (InfoDoc) describing techniques for growing different varieties of garlic in urban gardens. The document was very well received within the community. Additionally, seminars in urban gardening were held with DC Public School teachers from the Agriculture in the Classroom Program. This training is instrumental in helping teachers to establish urban garden projects at schools in the District of Columbia.

**c. Funding:** Research Grant

**d. Scope:** State Specific

**Key Theme: Training Pesticide Applicators**

**a. Description:** DC regulations require that Pesticide Applicators that are either residents of District or work exclusively in the District of Columbia must take their licensing exam in DC. The primary goal of the Pesticide Safety Education Program (PSEP) in DC is to provide initial training. In FY 2005 the training was focused on registered employees in the form of multi-day review sessions. However, it became clear in 2006 that the primary need in DC is for initial training. The Pesticide Use and Safety course was established. The class is equivalent to 6 of the 12 months registered technician requirement for the Certified Applicator Core exam.

**b. Impact:** 24 individuals have taken the course. About 50% have passed the exam. The Urban Pest Management Program is in the process of trying to access a permanent teaching location, complete with lab space for teaching demonstrations.

**c. Funding:** EPA Grant; Post Secondary Education Fund; Matching Funds; Fee based

**d. Scope:** State Specific

**Key Theme: Pest Management and Public Health**

**a. Description:** This program is designed to educate District Residents on how to effectively manage resident pest problems. In FY 06 it was strictly workshop/seminars for small groups.

- b. Impact:** 105 individuals received information packets. Three fact-sheets were written; discussing roach, rodent and bed bug management. The fact-sheets are being placed in literature racks in libraries and recreation centers.
- c. Funding:** Post Secondary Education Fund; Matching Funds
- d. Scope:** State Specific

**Key Theme: Water Quality**

- a. Description:** The Water Quality Program developed research based informational brochures and fact sheets for distribution to the DC community. Three hundred letters (300) and stamped envelopes were randomly sent to DC residents seeking participation in the Drinking Water Monitoring Program and 80 signed consent forms were returned. Water Quality workshops were conducted with 55 youth in the 4-H Program's LifeSmarts Club. The workshop addressed the importance of water quality and the effect of contaminated water on human health. At Ft. Stevens Recreation Center, a workshop on water quality was conducted for senior citizens. At a public library located in the southeast sector of the city, a water quality education workshop was conducted for the Community and Economic Development Club.
- b. Impact:** This is the first year of the Water Quality Education Program and surveys to assess the program's relevance and workshops/activities effectiveness will be completed by participants. After workshops were conducted at Ft. Stevens Recreation Center, one of the participants decided to send a sample from her faucet for lead contamination test. The test result shows high concentration of lead in the water. The participant changed her water supply pipe. For the second time, she came to participate in a water quality workshop and told her story to those who attended the workshop. Workshops/activities have enhanced DC residents' knowledge on the effect of water quality and its relationship to human health. The impact of this program on DC residents will be measured by the improvement in DC water quality.
- c. Funding:** Post Secondary Education Funds/State Matching Funds
- d. Scope:** State Specific

**Key Theme: Sustainable Agriculture**

- a. Description:** The AITC/KGF program is an after school teacher training program that provides activities and resources to DC teachers and students that increase agricultural literacy and awareness. The purpose of the program is to expand participant's knowledge base and skills in the field of Agriculture through the "Agriculture in the Classroom" approach and to prepare participants for job awareness opportunities in agriculture and related fields. The terminal goal is to infuse agriculture content into the curriculum in all DC Public Schools. Food gardens continue to be the focus for KGF and is the vehicle used as a strategy to help students understand where food comes from, how it grows and to help them make healthy food choices. TUNA was a five module, three day workshop for a dozen teachers who were graduates of the AITC program. The Modules taught were: What's Fat Got to Do with It, Go with the Grain, Looking beyond the Commercial, The Food Rainbow and Add a Little Salsa to Your Life. (Ann Matz from Salsa Wild. Com gave a group Salsa Lesson). What a fun way to become physically active. Each one of the modules included the agriculture-nutrition connection. Teachers learned what food manufacturers are required to put on labels and what information is left out. They observed what the manufacturers advertised about the product compared with the reality of the product contents. They also learned how to read and interpret food labels and what the information means in

relationship to the new USDA Dietary Guidelines for American. Additionally, teachers created lesson plans reflecting each of the modules.

**b. Impact:** Eight teachers completed at least six of the eight workshop training sessions. Each teacher wrote at least two lesson plans that tie in with the DC Standards of Learning. At least 80 telephone conferences were conducted regarding AITC activities or potential activities. AITC and KGF information was presented at the 2005 Smithsonian Folklife Festival. Being on the Smithsonian Mall in Washington, D.C. is not the typical place you would hear a presentation on AITC or KGF but approximately 200 people joined us during the three different one hour sessions on the topic: Food for Thought: Teaching Children about Good food. Each session generated active participation and discussion. Educators, parents, grandparents and children were the beneficiaries of our efforts. Nine teachers completed the three day TUNA workshop. We observed at least six of the TUNA teachers teaching lesson plans they developed about nutrition and agriculture. Through a collaborative plan involving American Institute of Wine and Food/ DC Chapter of Days of Taste, Fresh Farm Markets, Warner-Hansen Public Television and AITC/KGF, approximately 180 DC students and 6 teacher and adult volunteers were beneficiaries of DC Renowned Chefs in the Classroom providing hands-on lesson with food.

**c. Funding:** Post Secondary Education Funds; Matching Funds

**d. Scope:** State Specific

## **GOAL V: TO ENHANCE ECONOMIC OPPORTUNITIES AND THE QUALITY OF LIFE AMONG FAMILIES AND COMMUNITIES**

### **Overview:**

In a continued effort to enhance the quality of life of an urban society, the Agricultural Experiment Station established its goals in alignment with those of the District of Columbia to include strengthening children, youth, families, and individuals; building and sustaining healthy neighborhoods; and promoting economic development. Current research, investigations and experiments follow. The District of Columbia's low literacy level (over 30% of adults) attributes to the inability of many residents to find jobs paying adequate wages. Further, low literacy limits participation/acceptance in training programs requiring prerequisites such as a high school diploma or passing a verbal examination. New jobs being developed in the District of Columbia are now requiring higher literacy levels than before. AES's adult literacy program assists adults with enhancing their literacy skills. The Water Environment Studies in Schools Teacher Training Institute (WESS TTI) was developed as a means to enable primarily middle school and junior high school teachers to engage their students in the exploration, analysis and restoration of selected areas of the Anacostia River Watershed. The Adopt-the-Block Program serves as an environmental education program for teachers and students in DC Public Elementary Schools, promoting beautification, recycling, and neighborhood clean up efforts in the community. Additionally, the program provides valuable lectures, hands-on activities, and the establishment of schoolyard garden projects. Violent crimes involving the juvenile population of the District of Columbia has dramatically increased. The Agricultural Experiment Station is conducting a study to examine juvenile violent crime patterns in the District of Columbia using qualitative and quantitative research methods, including exploratory spatial data analysis (ESDA) techniques.

In collaboration with goals of USDA's **Enhance Economic Opportunity and Quality of Life for Americans** and the District of Columbia's **Strategic Plan for 2006 -2007** (listed within **A Vision for Growing an Inclusive City** (2004 plan)) as it relates to the citizens of the District of Columbia, the Community Resources and Economic Development Unit used key collaborations internally with Community Outreach and Extension Services, the UDC School of Business and Public Administration, School of Engineering and Applied Sciences and externally with 10 coop agencies, 200 community based organizations and key individuals to provide services through five (5) theme areas: 1) Financial Literacy, 2) promoting business programs, 3) promoting housing program, 4) youth development, and 5) leadership/training and development. Described below are the five (5) theme areas with accomplishments. We endeavored to develop successful neighborhoods by increasing access to education and employment throughout Washington DC. The Center for Cooperatives and the C.H. Kirkman, Jr. Resource Library for Cooperatives facilitated the revitalization and stabilization of low to moderate income neighborhoods, as well as commercial, and industrial areas in the District of Columbia. In summary, we hope to strengthen and improve the economic welfare of families, neighborhoods and communities through a local and national cooperative support network.

The Housing and Environment Program, in collaboration with District of Columbia Housing Finance Agency, Wheeler Creek Home Buyers Club, Henson Ridge Home Buyers Club, Carolsburg Home Buyers Club, Marshall Heights Home Buyers Club, Institute of Gerontology, Fort Stevens Recreation Center, introduced the Basic Home Maintenance Program to District residents. The Basic Home Maintenance Program provides hands-on instruction in such topics as wall repair, toilet tank repair, leaky faucet repair, and basic electricity. The Housing and Environment Program also introduced the Advanced Home Maintenance Program (Working Homeowner Program) to District residents. The Working Homeowner Program provides hands-on workshops in such topics as installing door locks, sinks, toilets, and ceramic tile; changing light fixtures; painting; and replacing a garbage disposal.

Often undiagnosed and under-treatment, asthma is the number one serious chronic illness in children and the leading cause of school absence and hospitalization. An estimated ten thousand (10,000) children under the age 18 and twenty thousand (22,000) adults in the District of Columbia suffer from asthma, according to the Allergy and Asthma Foundation of America, costing the District more than an estimated \$14 million in 1998 in direct medical expenditures for hospitalizations, doctors visits, medication, and related expenses. The lack of community awareness contributes to the disproportionate impact on African American and Hispanic children in the District. The CES Housing and Environment Program, Natural Resource and Environment Program, and Family and Consumer Sciences collaborated to form the CES Asthma Project. The CES Asthma Project was introduced to provide District residents with information about how to identify and resolve Asthma Triggers in their home.

4-H and Youth Development is Cooperative Extension's non-formal educational program for young people. The program combines the cooperative efforts of youth, volunteer leaders, state and land grant universities, federal, state, local governments, and the United States Department of Agriculture. The goal of the program is to assist young people in developing knowledge, skills, and attitudes that will enable them to become self-directing, responsible, productive



citizens, and contributing members of society. Volunteers are essential to the successful delivery of 4-H programs. 4-H serves youth in a variety of methods:

- 4-H School Enrichment Programs
- 4-H Special Interest Groups
- 4-H Individual Study Programs
- 4-H Instructional TV Programs
- 4-H Camping
- 4-H Projects
- Hands-on Learning

This year the UDC 4-H program moved forward in a new direction. We scheduled and implemented volunteer leaders meetings monthly to increase the number of clubs forming in the District of Columbia, developed new materials to be distributed to the community for implementing programs and we developed new larger partnerships to help us deliver services to the community.

Post Secondary Education Funds, Matching and Private Fund, Hatch and other Federal Grant Funds were expended on this goal at the cost of \$968,184. A full-time equivalent of 11.62 personnel was utilized to support this goal.

**Key Theme: Community Development / Adopt a Block**

**a. Description:** The Adopt-A-Block Youth Environmental and Life Science Education program offers an innovative project for DC Public Schools and civic-minded individuals and organizations, and gives community members the satisfaction of making a notable contribution to their communities.

**b. Impact:** The program expanded the educational components to include more detailed emphasis on watersheds and natural resources curriculum within the DC Public Schools. Projects include providing assistance to instructors in guiding students through the design of small gardens that abate water run-off which lead to soil erosion. This includes tree planting, planting of flowers and/or grasses. The students' level of inquiry regarding their environment continues to increase. Further, their interest and behaviors shifted positively toward outdoor explorations, urban gardening, community greening, and community clean up.

**c. Funding:** Hatch Funds

**d. Scope:** State specific

**Key Theme: Environmental Education**

**a. Description:** The **WESS** program is designed to respond to the need for 1) Environmental education in the schools; 2) Teachers proficient in the writing of curriculum around the newly designed DCPS performance standards; 3) Innovative practices to improve math, science and technology teaching and learning of teachers and students; and 4) Total community involvement in the conservation of the Anacostia River Watershed. The **WESS** program focus is the Anacostia River Watershed in which the students and teachers are residents. The WESS TTI consisted of two professional development sessions, one focusing on the basic components of the program for new participants and the other addressing phase two components for returning participants. Each session included ten days of intensive training with the primary focus emphasizing the environmental impact of the community's actions and the need for

citizenry knowledge of their environment. The basic training guided teachers through a series of workshops that not only provided a pathway to water environmental studies, but also provided a model to introduce and enhance environmental education in schools. The model also provided strategies and tools for teachers to use as a support in the design of their schools' standards-based water environmental studies curriculum. The level two component built upon the basic component and engaged teachers in hands-on construction projects to support schoolyard greening efforts.

**b. Impact:** Though designed primarily for middle/junior high school teachers, the program attracts numerous participants from a variety of educational genres. Eighteen (18) participants enrolled in and completed the 2006 program. This year's participants included teachers from the District of Columbia elementary schools, education centers, middle and junior high schools, senior high schools, and public charter schools. Eight (8) participants were engaged in the first session which focused on the level two component of the program. Ten (10) participants were engaged in the second session which focused on the basic component of the program. The WESS project enables teachers to design and implement a plan and process for restoring the River and to promote its popularity to the general public as well as to the students. The Institute experience empowers teachers to conduct in-school student-centered follow-up activities that include: 1) water quality assessment, 2) wetland studies, 3) environmental monitoring; 4) formation of community support; and 5) development of collaborative partnerships for the preservation of the Anacostia River Watershed. The overall study of the WESS Program indicates that there is continued growth among the participating teachers and that they have gained an awareness of the importance of water environmental studies. Further, they recognize the importance of continuing this program.

**c. Funding:** Grant Funds; Matching Funds

**d. Scope:** State Specific

**Key Theme: Children, Youth, and Families at Risk**

**a. Description:** The Standing in the Gap Summer Institute 2006 was an adult education program within the DC Agricultural Experiment Station that was funded through the District of Columbia Department of Employment Services through the University of the District of Columbia State Education Agency. This was a GED program with an ultimate goal to help individuals without a high school education achieve enough proficiency to obtain a GED. Therefore, STING administered this Adult Literacy program to District of Columbia residents over the age of 16 by providing administrative expertise, personnel, materials and supplies necessary to achieve this core purpose.

**b. Impact:** The Standing in the Gap (STING) program has demonstrated a commitment to help low income workers find livable wage jobs while providing local area employers with job-ready employees and to prepare students for the GED exam.

**c. Funding:** Hatch; State Education

**d. Scope:** State Specific

**Key Theme: Children, Youth, and Families at Risk**

**a. Description:** The specific goals of the project are to analyze the spatial patterns of juvenile violent crime rates across the District of Columbia; test the explanatory power of the spatial diffusion model by examining the nature of spatial diffusion patterns over time and identifying the various types of diffusion processes experiment within the city; and discern

factors that attract and repulse juvenile violence within communities. Students have received training in the use of Geographic Information Systems (GIS) Technology over the course of several weeks in the summer 2006. This training allowed them to develop a working knowledge of the potential uses of GIS. They also received hands on training on how to operate a GIS based program. The students have benefited from the training because it has broadened their understanding of the benefits of the use of GIS for both practical and research purposes. It has also provided a foundation of understanding that will allow the students to actively participate in the spatial analysis aspect of the program research. The project staff has begun collecting and assembling data to meet the goals of this study. Students will receive additional training in GIS techniques as well as observational data collection techniques as we continue to work toward addressing the project goals.

**b. Impact:** Once data has been analyzed the project staff will produce manuscripts for publication and conference presentations. The students will be included in the development of all the final products. The findings of this study will provide relevant stakeholders with information on the impact of social, economic, and environmental conditions, as well as the impact of social service and law enforcement initiatives on the change patterns (i.e. reduction, increase, movement from one geographic location to another) of youth violence. Most notably, the findings will provide relevant information regarding the influence of “at-risk” targeted programs on the changing patterns of youth violence in the District of Columbia.

**c. Funding:** Hatch Funds

**d. Scope:** State Specific

### **Key Theme: Promoting Community and Economic Development**

**a. Description:** In collaboration with goals of USDA’s **Enhance Economic Opportunity and Quality of Life for Americans** and the District of Columbia’s **Strategic Plan and Budget for 2006 -2007** as listed within **A Vision for Growing an Inclusive City** (2004 plan) as it relates to the citizens of the District of Columbia, the Community Resources and Economic Development Unit used key collaborations internally with Community Outreach and Extension Services, the UDC School of Business and Public Administration, School of Engineering and Applied Sciences and externally with 10 coop agencies, 200 community based organizations and key individuals to provide services through five (5) critical areas: 1) Financial Literacy, 2) promoting business programs, 3) promoting housing program, 4) youth development, and 5) leadership/training and development. We endeavored to develop successful neighborhoods by increasing access to education and employment throughout Washington DC. The Center for Cooperatives and the C.H. Kirkman, Jr. Resource Library for Cooperatives facilitated the revitalization and stabilization of low- to moderate-income neighborhoods, as well as commercial, and industrial areas in the District of Columbia. In summary, we hope to strengthen and improve the economic welfare of families, neighborhoods and communities through a local and national cooperative support network.

**b. Impact: Financial Planning and Literacy** By means of FDIC Money Smart Program, CRED held sixty (60) financial planning sessions for 842 persons at eight (8) neighborhood sites arranged by Community Tax Aid Corporation to train 258 deployed volunteers in IRS TaxWise software for re-assignment to 50 District tax sites. The volunteers prepared 5,000 sets of taxes and generated revenue for District’s residents over 5.5 million dollars from individual tax refunds. The COES Continuing Education Division contributed \$53,000.00 in support in lab space and technical support, held eight (8) tax tips sessions for 180 people at seven (7)

neighborhoods and prepared ten (10) sets of tax for low-income DC residents with the average return of \$1,500.00. We diligently campaigned to inform DC residents about the new energy deregulation bill headed by PEPCO. Further, clarifying effects and possible solutions of information prepared and sent out by Pepco to 100,000 DC households. Arranged and implemented a pilot High School Financial Planning program for DC Public Schools. The first A & B sections were offered to 50 students at McKinley Tech High School.

- c. **Funding:** Post Secondary Education Funds; Matching Funds; Private Funds \$50,000 Endowment for the C.H. Kirkman, Jr. Resource Library for Cooperatives
- d. **Scope:** State Specific

**Key Theme: Promoting Housing Programs**

a. **Description:** The goal of the UDC/CES Housing and Environment Program, in collaboration with D.C. Housing Finance Agency, Wheeler Creek Home Buyers, Henson Ridge Home Buyers Club, Carolsburg Home Buyers Club, Marshall Heights Buyers Club, is to provide housing programs that will enhance the quality of life among families and communities through skills/knowledge of basic home maintenance, and advance home maintenance workshops. The Basic Home Maintenance Program provides District residents with basic skills/knowledge needed to make minor repairs in and around their home. The Advance Home Maintenance (Working Homeowner) provides District residents with advance skills/knowledge to perform more advance repairs in and around their homes.

b. **Impact:** Participants are evaluated during the basic/advance hands-on workshops and participation in all demonstrations. Each participant completes an evaluation instrument after each workshop series. In FY 2006 the HEP Program introduced the Basic Home Maintenance Program to twelve thousand five hundred (12,500) District residents, in collaboration with DC Housing Finance Agency, Wheeler Creek Home Buyers Club, Henson Ridge Home Buyers Club, Carolsburg Home Buyers Club, Marshall Heights Home Buyers Club, and Ft. Stevens Recreation Center. These organizations assisted the CES Housing and Environment in advertising program information and also provided space to conduct workshops. Housing and Environment Program staff also developed and distributed newsletter to District residents. One thousand five hundred fifty (1,550) residents participated in workshops. Of the 1,550 residents that participated in the workshops, five hundred seventy five (575) actually used the information and skills learned in workshops to make basic repairs around their home. Their participation in these workshops resulted in an approximate savings of \$225.00 per household (total estimated savings of (\$129,375.00). The Working Homeowner Program was introduced to one thousand (1,000) District residents with one hundred (127) actually using the information and skills learned to replace items around their homes, which resulted in approximate savings of \$425.00 per household in repair cost (total estimated savings of \$ 53,975). Each organization provided HEP staff with necessary information for reporting. The net savings of each household was obtained from “Home Tech Remodeling & Renovation Cost Estimator.”

**Success Stories:**

- The HEP Working Homeowner Program provided workshops for Paving Access Trail for Higher Security Program (PATH). The PATH Program goal is to help District residents achieve better opportunities for education, jobs, and housing. Seven (7) PATH students obtain skills so they could apply for entry level positions in the area of maintenance and repair. On December 15, 2006 (7) students received certificates of completion, and were able to attend job fairs.

- Ms. T. Minor a former PATH student and Working Homeowner participant needed to change the door locks at her home. She contacted a local locksmith; the locksmith quoted her a price of \$175.00. Ms. Minor went to local Home Center and purchased a lock and installed it herself.
  - The Housing and Environment Program in collaboration with DC Housing Finance Agency was able to provide 400 District residents (non-homeowners) with information and training on how to purchase and maintain a home. By December 2006 thirty (30) District residents qualified and purchased a new home in the District of Columbia (average cost of home \$ 195,000).
  - Ms. Dori a participant in the Working Homeowner Program wanted to take workshops so she could finish work in her basement that was not completed. After taking a series of workshops she was able to install a light fixture, install a faucet, install door lock, ceramic tile her bathroom, and painted it. Ms. Dori said she saved \$1,000 to \$2,000 by doing the work herself.
- c. **Source of Funding:** Post Secondary Education Funds; Matching Funds
- d. **Scope:** State Specific

**Key Theme: Children, Youth, and Families at Risk**

a. **Description:** The CES Asthma Project in collaboration with US Department of Agriculture, Cooperative State Research, Education and Extension Service, US Department of Housing and Urban Development (Healthy Home Project) DC Asthma Coalition, DC Health Department, Housing Finance Agency, is to assist District residents in identifying asthma triggers within their home such as; dust mites, secondhand smoke, pet dander, roaches, rodents, mold, and mildew.

The Asthma project will provide District residents with factsheets, brochures, and home audits to help resolve and correct any issues they may have relating to asthma triggers.

b. **Impact:** CES Asthma Project and its collaborators provide information to District residents on asthma triggers. Thirty five hundred (3,500) District residents obtained information about CES Asthma Project.

In response to information distributed about CES Asthma Project, Rock Creek Charter School, East of River Community Development, DC Housing Finance Agency, Metropolitan Day Care Center wanted Asthma presentations at their locations.

**Success Stores:**

- Ms. Succi, the on site nurse at Rock Creek Charter School want a CES Asthma Project presentation for their 35 teaches on how to identify asthma triggers. Each teacher was provided information on asthma triggers such. Each teacher was provided the Healthy Indoor “Kids Care About Clean Indoor Air Activity Folder.” The folder contains teacher guide, room-by-room check list, asthma worksheets, pencil, and Airickson Asthma Coloring Book. Two weeks after presentation Ms. Succi informed CES Asthma Project team that each teacher had used information received. According to Ms. Succi 200 hundred students were learning about asthma.
- Mr. Jerome Lee, Coordinator at the Metropolitan Day Care Center contacted the Cooperative Extension Service to obtain information about the Asthma Project. Mr. Lee received 25 asthma coloring books, 25 crayons, 25 posters, and 25 book covers for his students. Two weeks later Mr. Lee called and stated that some of the student’s parents were very happy to about the asthma information that her child received and wanted to

know how they could receive more information. More information was provided to Mr. Lee.

- c. **Source of Funding:** Funds and Healthy Home Project Grant
- d. **Scope:** State Specific

**Key Theme: Youth Development (Literacy – School Enrichment Program)**

**a. Description: 4-H Operation Military Kids**

Operation Military Kids is a 4-H project designed to provide support to children of deployed parents in the military. When National Guard, Army Reserve and other military parents living in civilian communities are mobilized, their children suddenly become different. Now they are "military kids" but they still "look the same" to teachers, friends and the rest of the community. Their lives are turned upside down! These "new" military kids need to connect with other youth in similar situations. They seek friends and adults who can empathize and can help them cope with their new world. Operation Military Kids is that vital link for these children. Through a partnership with the Bolling Air Force Base we were able to continue two 4-H clubs on base that serve 88 children. The Wood working club participants chose to call themselves the "Wood Chucks" and made several interesting projects including clocks and key holders. With new participants they have elected officers and learned how to conduct meetings. A 4-H Spanish Speaking club was also established and children learned 30 new words fluently. We began a project with 50 children in the DC Armory program that allows them to learn about leadership development and technology. We began with a weekend workshop in Baltimore, Maryland about the different facades of 4-H. The Continuing Education staff donated 20 new computers to the program and the participants began working on technology projects. We are planning two weeks of spring's activities and hope to apply for a military grant to support future activities.

**b. Impact:** Eight students from the Bolling Air Force Base program have joined the JEF technology program in South East, Washington, DC. A total of 146 children were served through the Operation Military Kids program. The children received 144 hours of direct services programming.

- c. **Source of Funding:** Post Secondary Education Funds; State Matching Funds
- d. **Scope:** State Specific

**Key Theme: Youth Development**

**a. Description: 4-H Community and School Based 4-H Clubs** The aim of these programs is to increase young people's opportunities to have fun while developing lifelong skills through experiential learning in safe, healthy, and enriching environments. Community clubs were established at the Joint Education Facilities in South East Washington, DC. Students are participating in exploring computer and environmental technology through their 4-H club activities.

**b. Impact:** Their culminating event involved them in making presentations to the Organization of Black Scientist. Club activities continued with the military including the new program activities with the DC Armory. They have fifteen students in grade 4<sup>th</sup> through 7<sup>th</sup> and (15) kids in grades 8<sup>th</sup> through twelfth. The older students compete nationally in technology fairs. Some of our school clubs include Howard Road Academy Leadership Development and Reading Club with (42) kids, LaSalle Elementary School's Sewing Club, (50 kids) 4-H Urban Debate and Public Speaking Club (400 kids), Bruce Monroe 4-H Fridays Clubs (24kids) used educational games and sporting events to focus on family and teamwork. John Quincy Adams After School 4-

H Fridays ( 44) and Eugene Meyers After School 4-H Fridays (37), La Salle Elementary School 4-H Fridays, George Washington Carver Environmental Club( 20 Kids) is holding meetings at UDC and we are assisting them with leadership development materials, LifeSmarts (35 kids) at Brown Jr. High School (6), Cordozo High School (6) , Spingarn High School (6), Friendship Edison Charter High School (6) Ballou Senior High School (6)he Benjamin Harrison Public Charter School began working on the Technology Club program (64 kids), Cyber Camp continued during the school year with (35) children at the Benning Stoddert Recreation center. The children worked on learning the parts of the computer, the use of the computers and making booklets. 4-H activities were started with the KIMA Public Charter School initiated by our new staff person, Richard Baker. KIMA Public Charter Imhotep Club (50 Kids), and the KIMA 4-H Science Club (25 kids). A special presentation was given to the senior at KIMA Public Charter School class about 4-H activities they might want to participate in this school year. 200 Sat training manuals along with a special training program were presented to the KIMA students to help them prepare for their SAT exams. Nine training programs were presented once monthly to members of the community about being a volunteer leader for the 4-H and Youth Development Program. Evaluations were offered after each training program. Forty-seven new volunteer leaders were trained during the fiscal year.

**c. Source of Funding:** Post Secondary Education Funds; State Matching Funds

**d. Scope:** State Specific

**Key Theme: Literacy**

**a. Description:** DC Reads is the University of the District of Columbia Cooperative Extension Service literacy program created to break the chain of illiteracy that ties people to poverty. DC Reads tutors (primarily college students) are hired and trained to work with youth identified through testing as being in need of assistance to read and comprehend reading material better. Prior to entering the program, youth are tested to determine potential reading problems. Tutors travel to assigned schools or after-school programs Monday through Friday to work with assigned students in a variety of interactive and fun activities designed to improve reading skills. Proven structured and repetitive training processes help to ensure individual success no matter at what level the students enter the program. Prior to program completion, students are retested to determine how much their reading skills have improved.

**b. Impact:** Last year all of the children in the program exhibited gains as indicated by post-testing scores. Seventy percent of the children moved ahead a grade level in reading. External factor impacting the program caused a drop in program progress. Through the DC Reads Program this year we have partnered with five After school programs. A total of sixty four (64) tutors continue to serve 265 children in both semesters. Seventy-two percent of the children in the program from the first semester exhibited gains in reading. The number of children showing gains went down from last year as a result of a lost of tutors after an internal accounting mistake. We continue to reach a diverse population through the DC Reads Program. Forty percent (40%) of the children in the program we Hispanic, 49 percent (49%) of the children in the program were African American and 1 percent (1%) of the children represented other races. Tutors received 80 hours of classroom training and weekly meetings and instruction from our programs assistants and reading specialist (totaling 136 hour of training for sixty four tutors 8,704 hours of training for the group. They also received tokens for assistance for each tutor. They also received assistance with transportation to their sites. The children received 2,240 hours of tutorial instruction with reading and 2000 hours of assistance with homework. Through a

partnership with the Wizards Organization, children and their parents were also given free passes to eight professional sporting events for the Wizards (professional basketball team for Washington, DC) basketball games during the year. They were welcomed to the MCI center with a message on the large teleprompter in the MCI center. The DC Reads staff attended the National CYFAR Conference in Atlanta, Georgia. We were featured in the National Program Report for the Conference. A partnership has been initiated with the Department of Parks and Recreation that will allow us to make presentation in each ward in the District of Columbia about 4-H programs two programs have been presented to parents in the Turkey Thicket Recreation Center about helping their children to read better (15,972) for the fiscal year.

- c. **Funding:** Post Secondary Education Funds, Matching Funds, and CYFAR Grant
- d. **Scope:** State Specific

**Key Theme: Workforce Preparation (Youths and Adults)**

- a. **Description:** LifeSmarts, a unique consumer knowledge game show competition is designed for teenagers in grades 9 – 12. LifeSmarts concentrates on several crucial areas of real life: Personal Finance; Health and Safety; Environment; Technology; and Consumer Rights and Responsibilities. This consumer education program for youth also fits into the category of Adult and children’s literacy, by preparing the youth to be smart and savvy consumers. It prepares youth to ask the right questions, understand the way certain systems work and save money.
- b. **Impact:** The state competition was conducted on the UDC campus and the winning team was from Brown Jr. High School. They travel to Orlando, Florida where they competed in the national LifeSmarts competition. Post teens indicated that teens showed an increase in knowledge of consumer issues by 20%.
- c. **Funding:** Post Secondary Education Funds, CYFAR/USDA Grant; Environmental Science Research Institute
- d. **Scope:** State Specific

**B. Stakeholder Input Process**

**Agricultural Experiment Station**

The Agricultural Experiment Station continues the dissemination of surveys to residents in each Ward. We revised our survey to focus more specifically on critical issues in the District of Columbia. We will not only distribute the survey manually but we will also make it accessible through our newly designed website. Input from stakeholders is also provided by informal contact through e-mails, telephone, interviews and neighborhood meeting.

The UDC Cooperative Extension Service has cultivated and trained a highly involved stakeholder group in FY 2004; however **the UDC Extension Advisory Council (EAC)**, led by then Chairman Les Brown discontinued its support after the sudden death of Mr. Brown. The program units’ stakeholder committees meet at various intervals, such as the 4-H Advisory Committee, which meets 2-4 times per year. We continue to strive to provide programs and activities that are customer driven, some to a greater degree than others, as our Nutrition on Demand program. Through the various program advisory committees, program colleagues and agency collaborators, we have enhanced and expanded our program efforts and offerings.



The following list includes organizations, businesses and individuals who have been instrumental in fostering the CES programs by donating their time, expertise, funds and in-kind gifts.

American Horticultural Society  
Blue Sky Press, an imprint of Scholastic Inc.  
Children’s author, Lynne Cherry – donated signed copies of her book “How Groundhogs Garden Drew”  
DC Master Gardeners – participated in the orientation for KGF teachers  
EarthBoxes – provided training for teachers and students  
Giant Foods – The nutritionist worked at one of the stations while students visited the supermarket.  
National Gardening Association  
Plant a Row for the Hungry Program  
Seedway Seeds – provided seeds to the participating schools  
United Nation Food and Agriculture Association – provided training for teachers  
USDA, Agricultural Research Service- provided training and agricultural resources.  
USDA, Cooperative State Research, Education and Extension Service – provided training via in-kind service, materials and resources  
Whole Foods Markets – provided the food for “Sharing and Caring KGF Extravaganza”  
United States National Arboretum – provided training and lunch at the Arboretum  
DC Master Gardeners  
Unity Health System serving the city-wide needs of Hispanics, Asians and persons of African decent, Howard University Community Association Advisory  
DC Department of Health  
HEADS UP, TEAM After-School Board  
DOH Division of Toxic Substances  
DC LifeSmarts Advisory Committee and National Consumers League  
DC Public, Charter and Private School Principals and Professional Staff  
UDC CES Center for Cooperatives Advisory Committee  
DC Housing and Finance, DC Energy Office, and National Housing Alliance  
DC Metro Green Industry  
R.E.A.C.H. INC.  
The American Reality Association  
Community Harvest, and various other public/private agencies and organizations

## **C. Program Review Process**

### **Research**

The progress of each research project is reviewed to ensure researchers are accomplishing the objective of their project. There has been more focus on and request for research and integrated activities that revolve around the District of Columbia’s Mayor’s priorities. The priorities are closely aligned with USDA’s the National Goals. There have basically been no changes in the AES Program Review process.

Each year the Director reviews the progress of each research project to ensure that researchers are accomplishing their objectives. Modifications were made to move in the direction of implementing research and integrated activities based on issues germane to an urban environment. The Peer Review has expanded to include not only representatives from the Department of Biological and Environmental Sciences, the Department of Chemistry, the Department of Physics, the Cooperative Extension Service, the community, state, and local government, but also the Departments of Sociology, Urban Affairs, Criminal Justice, Psychology, and the Water Resources Research Institute. The Peer Review criteria remains, but limited to:

- Knowledge base of the research
- Adequacy of procedures and experiment to meet the objectives
- Feasibility of accomplishing the objectives
- Scientific merit of the proposed research
- Familiarity with work of others related to the proposal
- Outcomes and Impacts
- Appropriate budget for proposed research
- Budget justification

The Experiment Station has changed the format of the proposal submission to require information pertaining to the logic model to be incorporated in the proposal. The Peer Review Evaluation has been updated to reflect this.

### **Extension**

The UDC Cooperative Extension, along with our Advisory Committees has developed various formal and informal, qualitative and quantitative means to evaluate programs which include:

- Formal/informal Advisory Member Interviews
- Pre-test and post-test
- Volunteer recruitment and retention
- Agency/individual assessments
- Increased participant enrollment
- DC/National Certifications received by participants
- Partner/Collaborators evaluations
- Increased product demand
- Self-administered questionnaires
- Surveys
- Demonstrated Skills acquired by participants
- Proposals Funded
- Health Assessments
- Health Professionals and Participant Feedback
- Written/Oral Evaluations
- Behavioral/Attitudinal Changes
- Observations

- Reading Grade-level Achieved
- Staff Performance Appraisals
- Staff and Unit Monthly Productivity Assessment Tool
- Professional Development/Association Involvement
- Proposal Committee
- Conference Calls, Telephone and Email contacts were also made.
- Feedback from DC Public School Principals and Professional Staff
- Flyers are displayed at the site of programs, at libraries and various other public locations.
- Capital Area Food bank Advocacy Update Newsletter

#### **D. Evaluation of the Success of Multi and Joint Activities**

1. AES and CES continue to develop programs that address the needs of the underserved and underrepresented, particularly the African-American, Asian, Hispanic, Native American, the elderly and the disadvantaged population. Our Advisory Leadership Council is committed to assist us in developing research projects and programs that are critical to the residents of the urban District of Columbia.

2. AES and CES have improved collaborative efforts in working on integrated projects while continuously providing quality improvement in our programs.

3. Meetings with AES / CES project and program leaders, every two months, to discuss on progress, problems, and if any assistance is required. The expected outcomes and impact of the projects and programs are found in each of the Key Themes listed under Section F, Integrated Research and Extension Activities.

The following are some examples of our program effectiveness and/or efficiency through publications and presentations major conferences and as found under some of the Impact Statements in this FY 2006 Annual Report:

- A. AES publication: “CM-test: An Innovative Divergence Measurement and Its Application in Diabetes Gene Expression Data Analysis.” by Lily R. Liang, Shiyong Lu, Yi Lu, Puneet Dhawan, and Deepak Kumar. Submitted to the IEEE International Conference on Granular Computing. Conference May 10-12, 2006.
- B. “FM-test: A Fuzzy Set Theory Based Approach for the Identification of Diabetes Genes” by Yi Lu, Shiyong Lu, Lily R. Liang, and Deepak Kumar. Accepted by IEEE Symposium of Computations in Bioinformatics and Bioscience (SCBB06) – Conference to be held in Hangzhou, China on June 22-26, 2006.

#### **E. Multistate Extension Activities**

The multi-state project with Cornell University has expanded into two additional program opportunities for DC teachers, schools and youth under the coordination of our DC AITC component; and, the Landscape and Pesticide Training project with the regional EPA and Washington Area Metropolitan Transit Authority.

## **GOAL I: AN AGRICULTURAL SYSTEM THAT IS HIGHLY COMPETITIVE IN THE GLOBAL ECONOMY**

### **Key Theme: Urban Gardening**

**a. Description:** In partnership with University of Maryland, Virginia Tech University and the Washington Metropolitan Transit Authority (WMATA), DC Cooperative Extension Service coordinated and facilitated a three week Advanced Landscape Training for the WMATA employees. The curriculum included the following topics: pesticide training, basic plant taxonomy and root uptake, plant I.D., turf grass management, pruning, B&B and container installation methods, and tree and shrub fertilization and care of material for first year of planting.

**b. Impact:** Five hundred and sixty-two Junior Master Gardeners had their own outdoor vegetable garden plots to plant, maintain, and harvest. The garden harvests were shared with family, as well with the DC Central Kitchen, where the homeless shelters in the District of Columbia received their food. One new registered Junior Master Group was formed in partnership with Transitional Housing Corporation. This corporation is a faith-based non profit partnership that provides housing and comprehensive support services to homeless and at-risk families so that they can make transformational changes in their lives. Forty Master Gardeners were trained and certified at UDC. Master Gardeners provided 1,860 hours of horticultural expertise to the District of Columbia. Sixty landscape employees of the Washington Metropolitan Transit Authority (WMATA) were trained. The training is mandatory for employees who wish to be promoted. WMATA maintains 3,000 acres of land in the Washington Metropolitan Area. Master Gardeners completed a final exam and 50 hours of volunteer hours. Approximately five WMATA employees were promoted after the mandatory training. Because of the impact of this training the UDC CES Horticulturalist has been contracted on an annual basis by the WMATA to provide their employees with Advanced Landscape training.

**c. Funding:** Post Secondary Education Funds; Matching Funds; Fee Based Training

**d. Scope:** State Specific

## **GOAL II. GREATER HARMONY BETWEEN AGRICULTURE AND THE ENVIRONMENT**

**a. Description:** Agriculture in the Classroom (AITC) continued its partnership with Cornell University's Connecting Kids to the Food Systems Initiative, Kids Growing Food (KGF) by adding 5 more DC Public Elementary Schools during this fiscal year. The AITC/KGF program is an after school teacher training program that provides activities and resources to DC teachers and students that increase agricultural literacy and awareness. The purpose of the program is to expand participant's knowledge base and skills in the field of Agriculture through the "Agriculture in the Classroom" approach and to prepare participants for job awareness opportunities in agriculture and related fields. The terminal goal is to infuse agriculture content into the curriculum in all DC Public Schools. Food gardens continue to be the focus for KGF and is the vehicle used as a strategy to help students understand where food come from, how it grows and to help them make healthy food choices. TUNA was a five module three day workshop for a dozen teachers who were graduates of the AITC program. The Modules taught were: What's Fat

Got to Do with It, Go with the Grain, Looking beyond the Commercial, The Food Rainbow and Add a Little Salsa to Your Life. (Ann Matz from Salsa Wild. Com gave a group Salsa Lesson). What a fun way to become physically active. Each one of the modules included the agriculture-nutrition connection. Teachers learned what food manufacturers are required to put on labels and what information is left out. They observed what the manufacturers advertised about the product compared with the reality of the product contents. They also learned how to read and interpret food labels and what the information means in relationship to the new USDA Dietary Guidelines for American. Additionally, teachers created lesson plans reflecting each of the modules.

**b. Impact:** Eight teachers completed at least six of the eight workshop training sessions. Each teacher wrote at least two lesson plans that tie in with the DC Standards of Learning. At least 80 telephone conferences were conducted regarding AITC activities or potential activities. AITC and KGF information was presented at the 2005 Smithsonian Folklife Festival. Being on the Smithsonian Mall in Washington, D.C. is not the typical place you would hear a presentation on AITC or KGF but approximately 200 people joined us during the three different one hour sessions on the topic: Food for Thought: Teaching Children about Good food. Each session generated active participation and discussion. Educators, parents, grandparents and children were the beneficiaries of our efforts. Nine teachers completed the three day TUNA workshop. We observed at least six of the TUNA teachers teaching lesson plans they developed about nutrition and agriculture. Through a collaborative plan involving American Institute of Wine and Food/ DC Chapter of Days of Taste, Fresh Farm Markets, Warner-Hansen Public Television and AITC/KGF, approximately 180 DC students and 6 teacher and adult volunteers were beneficiaries of DC Renowned Chefs in the Classroom providing hands-on lesson with food. It is noteworthy that the collaborative group has been meeting every other month since November, '05. At our February, '06 planning meeting, we agreed on the name "FoodPrints" and established a timeline of activities for the collaborative effort of the partnership. FoodPrints first activity during this school year is an Essay Contest which will take place during National Ag Week in four of the following AITC/KGF elementary schools: Bowen (W2), Webb (W5), Ludlow Taylor (W6) and Seaton (W2). The target grade levels in each school are 4<sup>th</sup> and 5<sup>th</sup> graders, hence; approximately 322 students and fourteen teachers will participate. Students will be given a choice of two themes: "Share your favorite family recipe and tell us who it comes from in your family and what you remember about them" or "Tell a story of a food that you or someone in your family grew". Those choosing the recipe project will include the recipe as part of the essay.

**c. Funding:** Post Secondary Education Funds; Matching Funds

**d. Scope:** State Specific

## **F. Integrated Research and Extension Activities**

### **GOAL III: A HEALTHY, WELL-NOURISHED POPULATION**

A national priority is the maintenance of health and functional independence of older adults. Nutritional deficiencies are a greater risk among the elderly, especially in low-income elderly. Caloric intake and selection of nutrient rich foods is vital to the diets of the elderly. Many

elderly diets do not provide the level of nutrients needed for the elderly to maintain a healthy body. As the fastest growing segment of the population, the elderly are most susceptible to many health risks from a nutrient poor diet. It is essential for the elderly to include more fruits, vegetables, and whole grain in their diet in order to maintain a healthy body and reduce the risk of chronic and acute diseases. Thus, an intervention approach is necessary to address factors contributing to low nutrient intake and little or no physical activity.

#### **GOAL IV: AN AGRICULTURAL SYSTEM WHICH PROTECTS NATURAL RESOURCES AND THE ENVIRONMENT**

As an effort to protect sensitive areas such as where ground water is near the surface; near schools, hospitals, and playgrounds; wildlife; parks; and ornamental and vegetable gardens from the effects of chemical treatments used in pesticide management, the Agricultural Experiment Station is conducting research and promoting techniques that support the use of non-chemical means to prevent and manage pest infestation. Sustainable agricultural practices does not entail giving up all usage of pesticides and herbicides, but involves the employment of practices using beneficial insects, the planting of cover crops and the application of mulch or compost. Further, the application of sustainable agriculture techniques is also being studied in the reuse of industrial organic waste such as biosolids.

##### **Key Theme: Integrated Pest Management in Urban Gardens**

**a. Description:** Gardeners in the Washington Metropolitan area have serious problems with the Mexican and cucumber beetles in their squash and cucumber production. Several diseases are also affecting the production of tomato, cabbage, lettuce, broccoli and cauliflower. Among these diseases are anthracnose, fusarium wilt, blossom end rot, damping off and various other fungus infections. Many of the gardeners in the District of Columbia are reluctant to use chemical pesticides to control insects and diseases. The IR-4 project is an interregional project which deals with testing, recommending, and monitoring the use of pesticides for minor use crops (vegetables and ornamentals). The IR-4 project is closely allied with the sustainable agriculture project in the area of integrated pest management.

**b. Impact:** Urban gardeners, extension agents and other agriculturally related para-professionals are able to apply low input techniques to maintain ornamental and vegetable gardens without the use of harmful chemicals that may affect the their health, the environment, food, and other plants.

**c. Funding:** Matching Funds; Grant

**d. Scope:** Multistate; Integrated Research and Extension

##### **Key Theme: Sustainable Agriculture**

**a. Description:** Urban gardening is an important activity in the lives of residents in the District of Columbia, including youth and seniors. The project provided training, demonstrations, and field trips to assist novice and master gardeners, lawn technicians, teachers, and extension agents with establishing and maintaining vegetable and ornamental projects in

both cool and warm seasons in the District of Columbia. Training focused on teaching residents the appropriate use of low input techniques such as using cow manure and composted yard waste as soil amendments for growing crops in an urban environment. Teachers participating in the “Ag in the Classroom” program received training in the use of low input techniques for growing fruits and vegetables in urban areas in the District of Columbia. These teachers, in turn, have developed garden projects in order to educate their students on the principles of sustainable agriculture and generate an interest in gardening that is safe for residents and the environment within their communities.

**b. Impact:** Through teaching, demonstration, field trips, and dissemination of gardening techniques/tips, home and master gardeners, teachers, extension agents, and lawn technicians have increased knowledge of sustainable planting techniques in establishing and maintaining vegetable, fruit, and ornamental gardens. Further, the use of their knowledge to assist others can motivate members in their communities to start gardening. As a result, more residents are able to enjoy fresh fruits and vegetables from their own gardens while reducing the impact on our environment.

**c. Funding:** USDA Grant; Hatch

**d. Scope:** Multistate; Integrated Research and Extension

**Key Theme: Sustainable Agriculture**

**a. Description:** The Agricultural Experiment Station is participating with University counterparts in sustainable agriculture research on the use of chicken manure for crop production. Specifically, the Poultry manure produced from Delaware, Maryland, and Virginia (DELMARVA) poultry industries is applied on farmland along with chemical fertilizer for crop production. The manure transport program pays for movement of manure from farms over-enriched in soil. Cover crops in statewide cost-share programs help recycle unused nutrients in the dormant portion of the crop production cycle. Perdue AgriRecycle, Inc. has cleaned, sterilized, and palletized poultry manure for easy handling and movement in crop and vegetable production. Residents of Washington, DC grow vegetables in their backyards and could potentially use this material as a soil amendment. This experiment is designed to determine the effectiveness of palletized poultry manure as a soil amendment in vegetable production and its potential effect on DC water resources.

**b. Impact:** Cultural techniques developed has allowed some urban gardeners that they can use poultry manure on crops, such as collards, butterbeans, and rye, without causing nutrients like nitrogen and phosphorous to leach into our waterways. This is the beginning of helping to keep our water resources safe and clean; increase crop production; and produce vegetables of higher nutritional contents. Residents will not only benefit from fresh and healthy crops but also protect the urban environment in the District of Columbia. Information generated will be used for extension and outreach to benefit the residents of the District of Columbia.

**c. Funding:** Hatch; US Geological Survey

**d. Scope:** Multistate; Integrated Research; Water Resources Research Institute

## **FY 2006 Civil Rights Accomplishment Report**

### **Equal Employment Opportunity**

The Agricultural Experiment Station (AES) and the Cooperative Extension Service (CES) continue the practice of Equal Employment Opportunity at the University of the District of Columbia. AES and CES hired one African American female as a joint, full-time Marketing Specialist. Additionally, AES and CES hired one African (Ethiopian) scientist/agronomist as a joint full-time appointment for research and extension. All AES and CES staff members are hired based on their qualifications, which is the established employment personnel practice. All staff employees participated in the Annual Performance Appraisal process.

Two additional CES program staff members were hired: one full-time Black male Project Assistant and one full-time Black female Project Assistant for the development of DC Reads Program through the CYFAR grant. Several student interns were also hired to expand the resources and programming efforts of our CES educational offerings.

### **Staff Development**

Improving staff development, as it relates to performance, is essential for AES and CES employees. AES employees' professional development endeavors are encouraged and supported by management.

CES staff was continuously given the opportunity to enroll in courses at the University, one of whom has completed his MBA. All CES program and support staff members were offered the opportunity to attend staff development sessions during FY 2006. Staffs on all levels attended at least one training session during this reporting period. Members of the CES staff received Civil Rights Compliance training and review in FY'06.

Most AES and CES staff have received the newly instituted DC procurement "PASS" electronic processing training, however one new AES staff member received initial training.

### **Program Delivery**

Consistent with AES and CES mission, program delivery still targets the at-risk and underserved population of the District of Columbia. AES is also working with many of the DC Public Schools, especially in Wards 7 and 8, ANC Commissioners, and community organizations to increase their knowledge and awareness of our projects/programs. AES has further extended its partnerships to include Howard University, the ARC, the Washington East Foundation, and the Clara Mohammed School and the 21<sup>st</sup> Century Grant.

The DC READS program recruited, hired and trained five new Hispanic tutors to work in the program and, a Hispanic student was the senior tutor at one of our sites. We also had brochures and registration forms printed in Spanish. A student was hired to work with a Hispanic team in the LifeSmarts program.



Some of CES's partners include, Community and Religious based groups, D.C. Housing and Finance, National Cooperatives Association, TEAM After-School- program, The D.C. Chinese Center, regional and local Americorp, National Arboretum, The National Zoo, the Cornell University, D.C. Public Schools, United Planning Organizations, Project Harvest, Deaf Reach, National Consumer League, AARP, Non-commercial food service providers, Employer sites, Day Care Centers, Food Service Industry, Latin American Youth Association, Asian American Youth Association.

Special needs groups such as the homeless, diabetics and ethnic minorities have been served through the ethnic minorities congregate at certain sites and locations. Every effort is made to reach them at these sites.

CRED made special efforts to reach underserved groups in the District of Columbia by participating with the Hispanic and Korean Council. With the Hispanic/Latino group the Unit assisted with the DC Government/ Hispanic festival, which brought out 15,000 and with the DC Department of Employment Services CRED work with the Council on the issues of local jobs for neighborhood members. With IRS-VITA, CRED passed out income tax information in 7 languages and had a series of program information produced in Spanish.

The Pest Management and Public Health program is delivered to house-holds that are referred to us by the DC Asthma Coalition and community groups.

This year the 4-H/Youth Development Program sought to include youth and adult partners from each of the 8 wards of the city. In wards 6,7, and 8 there are particularly depressed areas which are purposefully included in our program delivery. We further sought through referrals, to reach a variety of ethnic groups as well as youth with diverse backgrounds, which was achieved with the initiation of 4-H clubs in the District of Columbia Public School System. Two such examples are found in John Eaton Elementary School and Roosevelt Senior High School clubs in wards 3 and 4 respectively. Both schools have a large percentage of students of varying ethnic backgrounds to include, but are not limited to: Hispanics, African, West Indian, and Caucasian students.

### **Public Notification**

AES/CES's Official Nondiscrimination Statement is still the same, "In cooperation with the U.S. Department of Agriculture and the District of Columbia Government, Cooperative Extension and Agricultural Experiment Station programs and employment opportunities are available to all people regardless of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, marital status or family status." AES and CES continue their efforts to assure that clientele are well informed of our activities, program, and research projects. We continue to introduce flyers, brochures, newsletters, press releases, articles, public service announcements, radio, public/private/cable television, and written materials that were translated for our Hispanic and Asian communities. Materials were also posted in libraries, schools, clinic, doctors' offices, at a variety of community workshops, the university's open house and the university's career day.

The Agricultural Experiment Station continues its efforts in producing Information Documents (InfoDocs), fact sheets and brochures that extend information to the general public regarding our research, experiments, investigative activities, educational and training activities, and outreach. AES also redesigned its Web Page for more accessible information.

Programs and activities were publicized on channel 19 (the local cable network), the Cooperative Extension Service Newsletter, the University's website as well as civic associations newsletters. DC Reads program banner was raised in the MCI Center during several Washington Wizard's Basketball home games. The children that attend the Randall Memorial United Methodist Church participated.

Whenever possible, educational and informational material is provided in the appropriate language, and/or interpreters are made available.

Equal opportunity and non-discrimination statements were placed on all educational materials released to the public. All programs, activities and research projects continue to be conducted in barrier free buildings at a variety of locations throughout the city in an effort to accommodate clientele with physical limitations.

Our diverse audiences and special interest clientele still include limited resource audience, youth at risk, underrepresented, single mothers, homeless women and men, and Asian and Hispanic residents. Additionally, several publications were issued through mass mailings.

The USDA poster, "...And Justice For All," remains prominently displayed in all offices and facilities used by the Agricultural Experiment Station and Cooperative Extension Service.

### **Civil Rights Training**

Civil Rights training did not occur in Fiscal Year 2006 due to the retirement of our EEO monitor. An individual has since been hired and tasked with the responsibility for Civil Rights Training for AES and CES staff.

### **On-Site Civil Rights Compliance Reviews**

No compliance review was conducted with the Cooperative Extension Service nor the Agricultural Experiment Station during the reporting period.

## District of Columbia – University of the District of Columbia-1862

### Clientele Contacts by Racial-Ethnic Group

Group	White not of Hispanic Origin	Black not of Hispanic Origin	Native American/Alaskan	Hispanic	Asian or Pacific Islander	Total
<b>2000-2004 Projected</b>	(145,014) 27.0%	(327,081) 61.0%	(998) 1.0 %	(43,332) 8.0%	(17,503) 3.0%	(533,928) 100%
<b>2006 Actual</b>	(7,258) 3.4%	(83,077) 87.8%	(16) 0.02%	(3,842) 4.0%	(463) 0.50%	(137,378) 100%

### Clientele Contacts by Gender

Gender/Year	Male	Female	Total
<b>2000-2004 Projected</b>	(213,571) 40%	(320,357) 60%	(533,928) 100%
<b>2005 Actual</b>	(49,730) 36.2%	(87,647) 63.8%	(137,378) 100%

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**MULTISTATE EXTENSION ACTIVITIES AND  
INTEGRATED ACTIVITIES  
Appendix C**

Appendix C

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

Institution UNIVERSITY OF THE DISTRICT OF COLUMBIA  
 State WASHINGTON, D.C.

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

Title of Planned Program/Activity	Actual Expenditures				
	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
<u>Improving Plant Food (Fruit, Vegetables and Whole Grain) Availability and Intake in Older Adults</u>	<u>103,633</u>	_____	_____	_____	_____
<u>Sustainable Agriculture</u>	<u>15,000</u>	_____	_____	_____	_____
<u>Muirkirk Farm Project</u>	<u>15,000</u>	_____	_____	_____	_____
<u>General Administration</u>	<u>5,000</u>	_____	_____	_____	_____
<u>Adopt-A-Block Life Science Project</u>	<u>15,000</u>	_____	_____	_____	_____
<u>Integrated Pest Management</u>	<u>3,000</u>	_____	_____	_____	_____
<u>Urban Gardening</u>	<u>3,000</u>	_____	_____	_____	_____
<u>Pelletized Poultry Manure Project</u>	<u>5,000</u>	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
<b>Total</b>	<u><b>104,633</b></u>	_____	_____	_____	_____

\_\_\_\_\_  
 Director

\_\_\_\_\_  
 Date



Appendix C

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

**Institution UNIVERSITY OF THE DISTRICT OF COLUMBIA**  
**State WASHINGTON, D.C.**

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

Title of Planned Program/Activity	Actual Expenditures				
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
<u>Connect Kids to the Food System Initiative</u>	<u>5,000</u>	_____	_____	_____	_____
<u>WAMATA Advanced Landscape Training</u>	<u>10,000</u>	_____	_____	_____	_____
<u>Muirkirk Farm Project</u>	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
<b>Total</b>	<u>15,000</u>	_____	_____	_____	_____

\_\_\_\_\_  
**Director**

\_\_\_\_\_  
**Date**