

V(A). Planned Program (Summary)

Program # 3

1. Name of the Planned Program

Global Food Security and Hunger

Reporting on this Program

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
102	Soil, Plant, Water, Nutrient Relationships	100%		100%	
	Total	100%		100%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2014	Extension		Research	
	1862	1890	1862	1890
Plan	5.0	0.0	2.0	0.0
Actual Paid	6.0	0.0	2.0	0.0
Actual Volunteer	2526.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
337622	0	72605	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
250485	0	94342	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
87798	0	15000	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

1. Conduct field experiments in the use of composted waste as a soil amendment for growing vegetables in urban gardens; their impact on the environment will be conducted at Muirkirk Research Farm in Beltsville, MD;
2. Facilitate workshops, training sessions, demonstrations, field activities, and farm tours for program participants to teach and update knowledge of sustainable agricultural techniques to establish, maintain, and protect both vegetable and flower gardens;
3. Develop and distribute informational fact sheets, brochures, and newsletters related to production and protection of urban gardens;
4. Participate in local, National, and international conferences and meetings on sustainable agriculture and urban gardening;
5. Provide pesticide safety education and certification for monitoring insect and disease infestations and recommendations for control while preventing environmental degradation;
6. Maintain Junior and Master Gardening certification; trained gardeners will participate in beautifying the city through volunteer hours; and
7. Strengthen Ethnic and Specialty Crop Program.

2. Brief description of the target audience

- 1) District of Columbia residents
- 2) DC Public School Teachers
- 3) Youth - Grades 3-8
- 4) Urban community gardeners
- 5) Small rural farmers
- 6) Landscapers
- 7) Nursery owners

3. How was eXtension used?

eXtension was not used in this program

V(E). Planned Program (Outputs)

1. Standard output measures

2014	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	67890	130803	193	0

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year: 2014

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2014	Extension	Research	Total
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of articles published

Year	Actual
2014	3

Output #2

Output Measure

- Number of fact sheets published

Year	Actual
2014	1

Output #3

Output Measure

- Number of Newsletters published

Year	Actual
2014	0

Output #4

Output Measure

- Number of workshops, demonstrations and technical assistance implemented.

Year	Actual
2014	64

Output #5

Output Measure

- Number of research projects completed
Not reporting on this Output for this Annual Report

Output #6

Output Measure

- Number of soil, plant and water samples test results

Year	Actual
2014	307

Output #7

Output Measure

- Number of informational materials distributed

Year	Actual
2014	13174

Output #8

Output Measure

- Number of conference presentations

Year	Actual
2014	4

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Percent of program participants that will adopt urban gardening techniques learned from informational materials provided and workshop presentations
2	Percent increase in urban gardens using some compost material as a soil amendment
3	Percent of soil, plant and water sample results within acceptable crop production range
4	Percent increase in the growth of a variety of ethnic crops in home, school, and community gardens in the District of Columbia.

Outcome #1

1. Outcome Measures

Percent of program participants that will adopt urban gardening techniques learned from informational materials provided and workshop presentations

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	40

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

There is a public demand for unbiased horticultural and IPM education for sustainable landscapes and gardens and conservation of natural resources.

What has been done

The DC Master Gardener Program is designed to train volunteer horticultural educators for the University of the District of Columbia Extension- the principal outreach education unit of the University of the District of Columbia. Participants receive 50 hours of basic horticulture training and then agree to work in their communities to teach District of Columbia Residents how to cultivate garden spaces and manage landscapes sustainably using research-based information. This environmental horticulture approach reduces fertilizer and pesticide use resulting in improved soil and water quality.

Results

276 (which includes 40 trainees) Master Gardeners and Trainees provided 13,000 hours of horticultural expertise to the District of Columbia. The value of volunteer time is \$38.69 per hour according to www.independentsector.org with a total value of \$502,970 in savings to the District of Columbia. In addition, 73,478 direct contacts were served by the Master Gardeners/Trainees and their Coordinator/Extension Agent. Forty (40) Master Gardener Trainees completed 50 hours of basic horticulture training, a final exam and 50 hours of volunteer hours. Various Master Gardener projects through all eight wards have been established which includes schools, parks, beautification projects, landscape design, youth gardens, local and national botanical gardens,

and partnerships with non-profit organizations.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships

Outcome #2

1. Outcome Measures

Percent increase in urban gardens using some compost material as a soil amendment

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

Percent of soil, plant and water sample results within acceptable crop production range

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

Percent increase in the growth of a variety of ethnic crops in home, school, and community gardens in the District of Columbia.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	40

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The Washington National Capital Area is home to 1.2 million foreign-born residents including up to 160,000 African born residents. This segment of the population shows great interest and demand for distinct dietary and culinary preferences, especially for ethnic and specialty crops. The market for healthy vegetables and fruits remains characterized by low supply and high cost for these home foods and fruits. There is a growing interest in the production of healthy foods by local area small farmers, immigrant farmers, community gardeners and other players in the supply chain.

What has been done

The Ethnic and Specialty Crops Development Program provided training and technical guidance in sustainable agriculture to urban farmers, immigrants, beginner farmers, and community gardeners in the area whose access to extension services is very limited, especially in the production of Ethnic and Specialty Crops. 40 trainees were provided with demonstration on various sustainable techniques and methods in ground preparation by plastic mulch to keep the moisture, compost production, seed germination, seedling production, best planting techniques and more. Trainees included urban farmers, community gardeners and agricultural service providers. They were introduced to best practices and innovative approaches on how to effectively use limited space in the food production by using farming processes such as hydroponic, aquaponics, tabletop container growing. An estimated 3500 lbs of food produced on the Sustainable Agriculture Research and Education demo plot was donated to institutions such as Bread for the City, D.C Central Kitchen and local immigrant churches.

Results

40 participants completed training. As a result of the training from the UDC-SARE project, trainers were able to share knowledge and information with more stakeholders. For example, John Manirakiza, who coordinates a Burundian immigrants farming project in Fredericksburg, Virginia, indicated that farmers plan to increase farm acreage from 2 to 5 acres, and raise the number of plant species from 5 to 15 in the coming season. Margaret Bidi, another trainee, who specializes in the distribution of Ethnic and Specialty foods, submitted a summary of her distribution activities which were strengthened by her participation in the SARE training program.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Other (Wet conditions; insects)

Brief Explanation

Despite the prolonged wet season, the planting season began in June and most plants developed slowly with abundant fruit load but little off-shoot. Furthermore, insects such Colorado potato beetles, flea beetles, Japanese beetles created significant challenges to eggplant, hibiscus and jute leaf crops, but were finally managed with organic pest control measures. As a result, harvest was done relatively late, in September. For the future, an

early planning period shall be considered on many of the specialty and ethnic crops. Finally, after harvest residues were chopped in and a winter cover of rye clover were planted. In 2015, the SARE plot will be expanded to a one acre plot.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

The research project added late fiscal year 2014 completed preliminary initiatives. We expect to report impacts in the next fiscal year report. Despite a late planting season, major milestones have been achieved and the SARE project has accomplished significant progress and promise to bring new opportunities for local communities.

Key Items of Evaluation