

V(A). Planned Program (Summary)

Program # 27

1. Name of the Planned Program

Childhood Obesity

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
202	Plant Genetic Resources		50%		20%
502	New and Improved Food Products		50%		15%
701	Nutrient Composition of Food		0%		20%
702	Requirements and Function of Nutrients and Other Food Components		0%		10%
703	Nutrition Education and Behavior		0%		35%
	Total		100%		100%

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2010	Extension		Research	
	1862	1890	1862	1890
Actual	0.0	0.1	0.0	1.3

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

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
0	0	0	336874
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	3928	0	183973
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Three field experiments were conducted on selected varieties and lines of hot pepper (*Capsicum annum*) and bitter melon (*Momordica charantia*) for variety identification and single plant selection. Selection of pepper lines was based on phenotypic characteristics indicating potentials for higher productivity and antioxidant related pigmentation of the berries such as yellow, orange, pink, and purple. Eight new varieties of bitter melon were grown for seed increase and germplasm maintenance. Laboratory experiments were conducted for recipe development and taste testing of bitter melon recipes for consumer acceptability. Two distinctly different varieties of bitter melon (in color and bitterness) were identified to run a demonstration trial to determine consumer preferences between the two types: Green and White. Beef stews were prepared using a proven recipe for bitter melons and other vegetables. Two preparations of beef stew were tested, one using the Green and the other using White bitter melon. About 60 of the 2009 Agricultural Field Day participants took part in sampling the two recipes. The respondents scored on the flavor, texture, and appearance of the two beef-stew preparations. In addition, preliminary evaluation of hot pepper sauce and pickles were conducted using peppers possessing different colors (green, pink, yellow, and purple). There were 80 students in the 2009 Elementary Nutrition (HUSC 2311) class at UAPB. Majority of the students were African-American. A survey was developed to interview the students about lactose intolerance. The questionnaire was adopted from the "Questionnaire on lactose intolerance" developed by the Arthur Haulot Institute of Dietary Nutrition in Brussels (<http://www.medisport.be/questionarya.html>). The questionnaire was tested for validity and reliability in the 2010 spring semester before being administered to UAPB students.

2. Brief description of the target audience

Among the targeted audience were leaders of the agricultural, academic, and social communities including small-scale farmers, home gardeners, and other producers and consumers. Plant breeders & geneticists, food scientists and health-food activists were also addressed.

University students with majority African-Americans were educated about the causes and symptoms lactose intolerance in classes of the Elementary Nutrition and Nutrition and Wellness on the UAPB campus. The questionnaire was applied on 42 African-American students, 14 males and 28 females; 14 lived on campus and 27 lived off campus.

V(E). Planned Program (Outputs)

1. Standard output measures

2010	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	{NO DATA}	{NO DATA}	{NO DATA}	{NO DATA}
Actual	45	210	0	0

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

Patent Applications Submitted

Year: 2010

Plan:

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2010	Extension	Research	Total
Actual	1	1	2

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # of research publication

Year	Target	Actual
2010	{No Data Entered}	2

Output #2

Output Measure

- # of promising crop line identified

Year	Target	Actual
2010	{No Data Entered}	12

Output #3

Output Measure

- # of successful food recipes

Year	Target	Actual
2010	{No Data Entered}	1

Output #4

Output Measure

- Microbial testing of yogurts for effective probiotics against lactose intolerance
Not reporting on this Output for this Annual Report

Output #5

Output Measure

- Recruitment of participants for the feeding study
Not reporting on this Output for this Annual Report

Output #6

Output Measure

- Workshops on yogurt containing probiotics
Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	# of people have knowledge about the new croplines
2	# of people familiar with the new crop lines
3	# of people adopted the crop lines
4	# of people adopted the new recipes
5	Increased consumption of dairy products containing probiotics
6	Reduced symptoms of lactose intolerance
7	Increased calcium intake
8	Reduced weight gain
9	Increased awareness of health benefits of yogurt and probiotics in dairy products
10	Gneral improvement in children health

Outcome #1

1. Outcome Measures

of people have knowledge about the new croplines

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

of people familiar with the new crop lines

2. Associated Institution Types

- 1890 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	10

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
202	Plant Genetic Resources

Outcome #3

1. Outcome Measures

of people adopted the crop lines

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

of people adopted the new recipes

Not Reporting on this Outcome Measure

Outcome #5

1. Outcome Measures

Increased consumption of dairy products containing probiotics

Not Reporting on this Outcome Measure

Outcome #6

1. Outcome Measures

Reduced symptoms of lactose intolerance

Not Reporting on this Outcome Measure

Outcome #7

1. Outcome Measures

Increased calcium intake

Not Reporting on this Outcome Measure

Outcome #8

1. Outcome Measures

Reduced weight gain

Not Reporting on this Outcome Measure

Outcome #9

1. Outcome Measures

Increased awareness of health benefits of yogurt and probiotics in dairy products

Not Reporting on this Outcome Measure

Outcome #10

1. Outcome Measures

General improvement in children health

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Other (- Limitation of funds and help in the field - Students dropout from UAPB)

Brief Explanation

Experiments were badly affected by the management and environmental conditions. Weed control was not good due to shortage of hands and availability of appropriate herbicides for the specialty vegetables.

Phytochemical and nutrition analyses were not possible due to unavailability of appropriate collaborative partners. However, efforts are being made to run the analyses locally but speed is very slow, and thus results are yet to be available.

Did not travel to Iowa State University to do the microbial analyses of the yogurt samples. The selection of yogurt samples to be used in the feeding studies depends on the microbiological analyses.

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Before-After (before and after program)
- During (during program)
- Comparisons between program participants (individuals, group, organizations) and non-participants

Evaluation Results

Not done yet

Key Items of Evaluation

Not applicable