

2014 University of Puerto Rico Extension Annual Report of Accomplishments and Results

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I. Report Overview

1. Executive Summary

Executive Summary

This accomplishment report covers the period from October 1, 2013 to September 30, 2014. During this fiscal year, the Puerto Rico Agricultural Extension Service (PRAES) used 161.31 FTEs, a decrease of 2.49 FTEs from the 163.8 used for FY 2013. Despite personnel actions (retired vs new hiring) on average, the number of FTE remained constant with a slight variation from last year.

1. Plant Systems

The Island's agricultural production has been extensively affected by price increase of farm inputs, the prolonged fiscal crisis, and the presence of new pests. The most important local commodities have been impacted by the introduction of new devastating pests and diseases, such as the coffee berry borer (*Hypothenemus hampei*), the black sigatoka (*Mycosphaerella fijiensis*) in plantains and bananas, and the citrus greening (Huanglongbing) in citrus fruit orchards.

The main goal is to help farmers increase and improve their production through the use of Integrated Crop Management Practices (ICMP) that includes adoption of integrated pest management practices to protect the environment by means of natural resources conservation, and contribute to the competitiveness and sustainability of Puerto Rico's agriculture.

In recent years people are increasingly interested in producing their own food due to higher food costs and pesticide issues associated to food production. In 2014, 7,709 persons gained knowledge after completing a course in vegetable gardening. The main outcome was that 20% of the people trained established a vegetable garden in their yards as a result of the educational program. There was an increase in understanding of vegetable gardening and an increase in the use of sustainable management strategies including cultural control and the use of botanical and natural pesticides.

2. Animal System

Livestock production has been negatively impacted by challenges such as low reproductive performance, heat stress, poor nutritional management, elevated costs of high energy foods, a decline in the demand for dairy products, as well as current changes in global trends.

Extension has implemented diverse outcome activities to support adoption of new practices as a means of adapting to local and global issues. Together with the Agricultural Experiment Station and Faculty Professionals, PRAES seeks solutions to address these challenges to ensure that the industry remains profitable and sustainable, while addressing environmental and economic concerns.

In Puerto Rico there is only 3 types of anthelmintic available to treat animals with gastrointestinal parasites and have been used for more than 2 decades. This scenario can be associated with parasite resistant development to these anthelmintic.

Research-Extension personnel developed a study to compare the effect of 4 different commercial anti-parasites on fecal parasite load in heifers (n=199). Twenty one dairy farms were included in the study. Each participant dairy farmer was trained about parasite control strategies and proper product application (e.g., product rotation schedule, management practices to reduce resistance development, etc.). Extension personnel associated with participant dairy farmers assisted in the study.

The results showed gastrointestinal parasites in the dairy farms included in the study demonstrated resistance to certain commercially available anthelmintic. To disseminate this results, 3 stakeholder

meetings were held in different regions of the island. Extension Agents of each region participated in the events. They were instructed to visit dairy farmers that did not participated in the meetings. This collaborative study create awareness of the importance of proper use of anthelmintic and its importance in dairy herds increasing production efficiency. This Research and Extension initiative could be associated with the elevated number of farmers that adopted practice for the control of parasites on their farms.

3. Climate Change

Global climate is changing and will continue to change in ways that affect the planning and day-to-day operations of businesses, government agencies, and other organizations. Its manifestations include higher temperatures, altered rainfall patterns, and more frequent or intense extreme events, such as heat waves, droughts, and storms. All over the world, natural disasters due to changes in climate has become increasingly more evident and severely affecting agriculture productivity.

With the use of the curricular guide on climate change (the first step of this plan of work), newspapers articles, radio programs, conferences and other means, people are getting a better understanding of what is climate change. Farmers in the central mountain region are recognizing the changes in planting season and dealing with the emergence of new pests and diseases. Cattle producers are experimenting with different breeds for beef production that are adapted to the weather, as well as practices such as grassing late in the afternoon.

So far, 30% of the participants in capacity development activities have adopted practices to improve water collection for agriculture purposes.

4. Sustainable Energy

The decreases in oil availability, uncertainty in the cost of fuels and its implications in the economic well-being of our citizens, have triggered the urgency for energy independence and sustainability.

Puerto Rico, has one of the highest costs of fuel in the United States. However, despite our tropical climate is favorable to the sustainable energy industry, not many projects have passed the planning phase.

The sustainable energy planned program intends to increase our clientele's existing knowledge of the sustainable energy technologies, energy conservation, and opportunities to finance sustainable energy projects and their cost and environmental benefits.

Educational materials were prepared on solar energy, efficient use of energy at home and farm renewable energy use. Fifty four (54) workshops were offered throughout the Island with a total of 1,162 participants. In addition, 36 collaborations between different government agencies such as the State Department of Agriculture and other educational institutions were established.

From this 1,162 participants, 55 made changes in their facilities or established high efficiency equipment that promote energy conservation, environmental benefits and lower their energy costs.

5. Global Food Security and Hunger

Food security emerged as one of the major risks of the 21st century (Global Risk Forum, 2008). This is more evident in Puerto Rico due to its condition as an island. An extremely low domestic production of less than 20% makes food availability to be mainly through imports (80%). Besides, extended supply chains generates competitive disadvantage to agribusiness and people, increases the vulnerability of Puerto Rico's food system to disruptive risk.

Although 58% of the people in Puerto Rico have access to appropriate foods for a nutritious diet through transfer income benefits, WIC Plan or School Food Service, consumers need continuous orientation on the utilization of food through an adequate diet, water, sanitation, and health care. The system's stability is threatened by various factors such as climate change and the economic crisis which cause food price increase.

The implementation of a curricular guide on Food Security continued. There were many educational activities developed, in addition to one hundred sixty two (162) short courses where a total of 4,788 person's participated in conferences and agriculture fair. Also, 93% of the youth who participated in food system educational program improved their knowledge.

6. Family Well-being

Financial education has gained interest among consumers due to the present economic situation. Financially secure families are better able to contribute to vital, thriving communities, further fostering community economic development. Twenty seven per cent (27%) of the persons who completed

the Consumer Education Course applied savings through goods and services selection practices.

Through family and financial literacy families developed appropriate tools for better decision-making process, while simultaneously promoting healthy life styles to clientele and educating individuals and families in family relations, values and related areas to decrease family violence and child maltreatment.

Fifty six per cent (56%) of the persons who were trained on parenting improved their parenting skills. A total of 1,509 elders participated in courses on aging aspects. As a result, 762 (50%) of the participants gained knowledge and developed skills toward aging, self-esteem, loneliness and other situations related to the aging process.

The increase of family violence, child maltreatment and neglect in Puerto Rico is a social problem affecting family live quality, individuals and children (PR Census, 2010).

Educational material was developed and implemented on a Family violence Prevention campaign at state level during the month of November (National Family Month). Extension educators extended the campaign efforts in their counties. Also, collaborations were established with state and local government, agencies, institutions and faith base communities and leaders to disseminate the information. One hundred sixty -two (162) collaborations were established, one hundred (101) educational campaigns were developed, seventeen thousands and six hundred eighty - eight (17,688) individuals and families benefited from the educational information.

7. Adult and Childhood Obesity

The planned program on Adult and Childhood Obesity works on strategies presented by the Department of Health and Human Services' 2010 Dietary Guidelines for Americans, which focused in the promotion of healthy lifestyles, nutrition adequacy and physical activity. It concentrates on the development of family and personal strategies that facilitate healthy food choices and active living

by promoting the integration of two other NIFA initiatives: Food Safety and Global Food Security and Hunger, enhancing the ability of families to grow their own nutritious foods while increasing physical activity, as well as preserving nutritious foods by applying food safety recommendations. Furthermore, efforts to disseminate Puerto Rico's Food Basket, will relate to locally grown foods and food security.

The children and youth who participated in the nutrition and physical activity education course reinforced their knowledge with hands-on activities to increase the intake of both, fruits and vegetables by 40%. For example, a mother with two obese children participated in the program where one of her children lost 10 pounds within two months following nutrition education on how to incorporate fruits and vegetables in their meals, through the use of healthy recipes. Lessons using two curriculums were given to parents, caregivers, children and youth. The addition of physical activities and competition increased overall physical activity in 60% of the participants. A 46% of the participants learned about the benefits of gardening for better nutrition and physical activity and were consuming food from their gardens.

8. Food Safety

The goal of the Food Safety planned program is "To improve food safety through the control, reduction or elimination of contamination risks". This component consists of two main areas: education for consumers and education for food managers.

PRAES has developed three (3) curriculums on Food Safety. Also the PR Health Department (PRHD) adopted the Food Code in 2000 that requires that all people in charge of food establishments must demonstrate knowledge in proper food safety procedures. In 2013 the Food Code requires the completion of a Food Safety course. The PRHD requires this course be taken every 3-year.

One thousand and thirty seven consumers completed a short course on food safety. From which 72% avoided cross contamination; 80% cleaned and sanitized food contact surfaces; 60% reduced holding time to 2 hours when food was exposed to danger zone; 84% of consumers washed their hands frequently and 45% used a food thermometer to measure food temperature.

A total of 119 courses were offered around the Island where 4,036 Food Managers completed a Food Safety Course from which 99% scored 70% or more in the test. Among the practices adopted by the Food Managers after participating in a course were: 79% of the Food Managers prepared a plan for temperature control; 84% washed their hands between tasks; 66% verified holding food temperature; 72% used

required by Food Code; 58% kept hot food at 135°F; 56% cooled food following Food Code recommendations; 59% prepared a written procedure for clean-up of vomiting and diarrhea event; and 75% used proper water temperature for dish washing.

9. Strengthening Youth Life Skills, Leadership and their Community

Youth Development is a mayor emphasis area of the Puerto Rico 4-H and Youth Development Program for its long-range educational program. It is designed to provide youth with positive opportunities to learn and interact with peers and adults, provide leadership development, and center in the enhancement of life skills to prevent negative high risk conduct through research-based educational programs directed on healthy lifestyles; science, engineering and technology; citizenship and leadership.

One hundred sixteen youth participated in the three days National State Conference. Thirty three (33) 4-H youth from around the Island were selected to represent Puerto Rico in the National 4-H Congress and National 4-H Conference to demonstrate the knowledge gained and leadership skills acquired through the opportunities and participation in 4-H program. Besides, 1,793 4-H members reported improving their communication skills and used their voices to become positive contributing citizens who make an impact in their communities. The media events launched the 4Hers to new experiences where they acquired tools to be more effective delivering messages and also provided the opportunity to develop life skills.

Through the Abuse of Alcohol, Tabaco, and Other Drugs (ATOD) project, sixty-two (62) participants increased their critical thinking skills and learned media literacy skills. This year, in order to increase the sustainability of this strategy in Carolina and other municipalities, it was proposed the training and certification of at least, ten educators (school teachers, 4-H volunteers and Extension Faculty).

4-H Research and Outreach Project for non-point source pollution at Cabo Rojo Coastal communities developed an internship for 30, 4-H youth (14-18 years old). This successful environmental projects presented by youth in a scientific poster session, demonstrated: youth gained awareness and responsibility with the environment; knowledge increase in the researched issue; 4-H knowledge and commitment to actively participate in the community; youth researchers are interested in the development of outreach plan to encourage the public to reduce pollutant transport to the coral reef ecosystem, and strong environmental leadership.

The "Geroamigable" project of the 4-H Lucky Clover Club established a school food garden and celebrated the Grandparents Day. Also, they offered workshops for students, parents and faculty staff. The main accomplishment of this project was the recognition received by Merck Pharmaceutical as Health Innovation Project leading by youth. The group's leaders received the opportunity to be part of an internship in Merck Pharmaceutical during 2015 summer.

10. Community Resources Development by Means of Fostering Sustainable Communities

The Community Resources Development Program (CRD) of the Puerto Rico Agricultural Extension Service (PRAES) has consolidated an effective Community Economic Development and Self-management program that address Puerto Rico's most pressing social issues.

To help manage both the agricultural activity and community economic crisis, the sections Empowering Communities and Community Economic Development of CRD continues, with special emphasis on community based agricultural land conservation and the promotion of sustainable low-scale family or community-based agriculture and other economic initiatives. It stay focusing beyond training activities and center on the identification and development of skills already present in the participants or the communities geared toward economic production, self-employment or the creation of micro enterprises.

Formulation of market need assessment, marketing plan, break-even point analysis and financial plan are the most significant skills and practices put in place by participants. Close to forty percent (39.29%) of last year's participants have applied one or more of the recommended practices in order to establish a business initiative.

In the municipality of Juana Diaz with the assistance of PRAES personnel, community leaders organized community meetings and met with the town mayor and the main seed producing agroindustry to complain for the utilization of herbicides and pesticides used too close to the community. After a series of assemblies and gatherings, a buffer zone was implemented. The community established 3-community

gardens (two for adults and the other for youth) that have provided a new source of income and community involvement.

EVALUATION OF MULTI JOINT ACTIVITIES

1) How will the planned program address the critical issues of strategic importance, including those identified by the stakeholders?

Critical issues of strategic importance continue to be addressed through the five national initiatives and have been integrated across the four base programs. In addition, the Local Advisory Committees are a main mechanism to identify local needs of our stakeholders in the municipalities. These needs are addressed locally in the plan of work of every municipality. Most of these issues are already incorporated as part of our planned programs.

The Merit Review process, conducted for each base program, also provides an additional perspective to the needs of our stakeholders, as numerous agencies and groups working with similar audiences contribute to the need. In the area of agriculture, commodity meetings provide a more specific identification of critical issues. Meetings are conducted for every commodity with farmer's participation, Extension agents and researchers from the Agricultural Experiment Station. Extension specialists become key contacts between PRAES and the Experimental Station. During these gatherings, critical issues are discussed and strategies are defined to address these issues.

Within the Agriculture program one of the most critical issues is the impact of the introduction of new devastating pests and diseases, such as the coffee berry borer (*Hypothenemus hampei*), the black sigatoka (*Mycosphaerella fijiensis*) in plantains and bananas, and the citrus greening (Huanglongbing) in citrus fruit orchards. This program address this critical issue through the implementation of Integrated Crop Management Practices (ICMP) that includes adoption of integrated pest management practices to protect the environment by means of natural resources conservation, and contribute to the competitiveness and sustainability of Puerto Rico's agriculture.

The critical issue of childhood obesity, a National Initiative, is been addressed through collaborative efforts between all our four base programs. At the Family Consumer Sciences base program, our CFS professionals disseminate the information of My Plate to prevent childhood obesity. In collaboration with the Agricultural base program, they encourage the establishment of family, urban, and community gardens as a means to promote the consumption of fresh fruit and vegetables is emphasized, also addressing food security. Extension continues collaboration with the Puerto Rico Department of Agriculture and the Department of Education in the establishment of school vegetable gardens.

Another critical issue identified in CFS base programs, continued to be child maltreatment and economic issues, both are addressed in the Family Well-being Planned Program.

Effective and constant communication with our youth participants also provides input from our youngster's perspectives. In different 4H activities/events, such as the State Conference, 4H participants have the opportunity to present and discuss issues that they understand the program consider as priorities. One critical issue identified is the need to create youth and adults networks. Consequently, together develop and participate in community issues affecting citizens' wellbeing. Issues such as, work with elderly, with peers and with youth with disabilities were areas identified by 4-H youth as critical issues to work in 4-H program. These issues are been managed through special projects. The 4-H program continues to pay special attention to the critical issues of the national initiatives, including childhood obesity, food security, food safety, and climate change. Besides, 4-H continues dedicating time to the key critical issue of alcohol prevention and drug consumption among youngsters through a collaborative project between PRAES and ASSMCA.

Local Advisory Committee meetings were held to identify new needs to be addressed by the Community Resources Development Program. The lack of employment opportunities continues to be identified as the most pressing need and focusing in the creation of self-employment and community based economic opportunities were identified as the most important tasks to take care.

2) How will the planned programs address the needs of under-served and under-represented population of the states?

The Family and Consumer Sciences planned programs continue targeting under-served and under-represented groups including low income families, adolescent mothers, elderly people, at risk population, and women heads of households, as well as individuals with physical, social and economic disadvantages. It also targets the under-served audiences of single fathers, grandparents raising grandchildren, battered women and children living below poverty level.

During this year the 4-H program continued creating opportunities were under-represented audiences could participate. Juncos Handicapped and 4-H Youth Tennis Program, integrate a Healthy Living program and physical activities using tennis sports with disabilities participants and low income kids. Tennis sport traditionally was associated with high social class level. But together the 4-H program, the municipality of Juncos, volunteers and a tennis instructor changed participant's way of thinking and families about practicing tennis. Also participants and families learn how to select healthy foods. The last three years we have received 120 participants in the program. Our 4-H tennis program for participants with disabilities was also assisted by the JC Penney After-school Program sponsored by the National 4-H Council.

Puerto Rican population living in poverty, which is the focus of our program, is by definition an under-represented group. Within this group the Community Resource Development Planned Program have initiatives that centers in training and developing business initiatives for women, disadvantaged farmers and community services providers. Other private enterprise-community initiatives worked in the establishment of community vegetable gardens to promote recreation and the production of locally grown food.

3. How will the planned programs describe the expected outcomes and impacts?

Every planned program at PRAES describes the expected outcome and impacts through outcome indicators reported in the Electronic Reporting System that collects data throughout the state. Impacts are collected through local and state success stories and reported in the section Impact Statements of the Annual Report. Most of the planned programs reported at least one impact statement which focused on outcomes or changes in action and conditions.

Overall, the Agricultural planned programs outcomes will focused on: percentage of farmers adopting recommended practices, improvement in the quality of the products, increases in market share of local produce and increases in local agriculture production.

The Family and Consumer Sciences planned programs focused on changes in knowledge and skills and on the adoption of recommended practices.

The Youth Development Planned Program, in addition to the data collected through our state reporting system, describes in the Impact Statements the outcomes achieved through special projects. Through the 4-H state projects Route for Healthy Living, Food Systems and Food Security, Alcohol and Drugs Abuse Program, Youth Agro-events, more than 5,000 participants have been targeted in the following areas: My plate, the importance of fruits and vegetables, food gardening, physical activity to be healthy, food security, agricultural products (animals and plants), how to prevent early use of alcohol and drugs in kids and youth, food production and environment; education and leadership. These have been described in the Impact Statements. Through Route for Healthy Living, our program developed 221 teen leaders to deliver education in healthy living around the Island. This group of teens reached 2,253 kids and youth more than 100% as planned to be impacted in 2014. This Initiative is support by National 4-H Council and Walmart Foundation.

Success stories are the main descriptive methodology used to support quantitative data being informed in both, output and outcomes indicators. In addition, focus groups were held with community leaders to assess the level of knowledge and understanding in the areas of emergency and natural disaster management.

4. How will the planned program result in improved program effectiveness and/or efficiency?

PRAES planned programs continued to improve their efficiency through collaborative multi-institutional efforts with major agencies and institutions that work with similar audiences such as the PR Department of Agriculture, Farm Service, Rural Development, NRCS, Commodity Farmers' Association, The Family Department, the Head Start Program and the Departments of Education. Specifically, PRAES unite efforts with the Agricultural Experimental Station where Extension agents and researchers worked together in the organization of commodity meetings in which critical issues were discussed with farmers and other audiences related to agriculture. Periodic progress evaluations are conducted to evaluate how programs are accomplishing their objectives and impacts.

This year, the Strengthening Youth planned program conducted a progress evaluation to identify which methodologies are been used to develop life skills among the participants. At the same time, identify needs among our faculty to improve program delivery. This planned program achieved the majority of the goals established because:

- The 4H staff offered PRAES county agents conferences and workshops and training in life skills, leadership, and community services to enhance their performance in the field.
- A 4-H State Team was organized to support and mentoring county agents, adults and youth volunteers.
- New external resources and funds were identified to support our program.
- 4Hers participated in mass communication to promote 4-H as a positive organization for youth, mayor media in PR talk about 4H and their purpose to encourage youth to obtain knowledge, develop life skills, and develop citizenships skills.
- We reinforced the strategy Youth Voice: Youth Choice, providing to our youth leaders the opportunity to design and to deliver using different strategies in schools and communities the 4-H initiatives.
- We prepare a magazine were youth and volunteers participate as designers and protagonist to deliver prevention message for parents and communities.

The Community Resources Development by Fostering Sustainable Communities Planned Program decrease its rate of community based economic initiatives activity due to the integration of new PRAES field personnel who are in the process of getting acquainted and of organizing new community groups.

Data Envelopment Analysis (DEA) was used to analyze the indicators of the Agriculture initiatives: Climate Change, Food Security and Sustainable Energy, submitted for the years 2012, 2013 and 2014. DEA is widely used in the evaluation of performance of Decision Making Units (DMU's); all DMU's in comparison are assumed to operate homogeneously, meaning they receive the same kind of inputs to produce the same kind of outputs. In this exercise, the method was comparing the efficiency of the Ag Initiatives being each topic a DMU (input/outcome). This type of data analytic method gives a maximum score of 1 to the most efficient unit regarding the raw data obtained of results and the numbers that were planned to achieve those results. In the three years observed, Food Security scored the most efficient unit of each year followed by Sustainable Energy.

Planned programs will continue to be effective by increasing changes in knowledge, skills, practices, and conditions in our participants, families, and communities; as they are focused on the most critical needs of our people. However, we recognize that to improve effectiveness the PRAES must expand the use of electronic means and its presence in the Internet. In addition, we must continue improving our data gathering system to demonstrate that PRAES educational methods are desired by the audience and effective in increasing changes in knowledge, skills, practices and conditions in our participants, families and communities as they are focused on the most critical needs of our people. This will be revised during FY 2015.

Total Actual Amount of professional FTEs/SYs for this State

Year: 2014	Extension		Research	
	1862	1890	1862	1890
Plan	169.6	0.0	0.0	0.0
Actual	161.3	0.0	0.0	0.0

II. Merit Review Process

1. The Merit Review Process that was Employed for this year

- Internal University Panel
- External University Panel

2. Brief Explanation

The Merit Review process was conducted through four committees which represent each of the four major program areas: Agriculture, Marketing and Natural Resources; Family and Consumer Sciences; 4-H and Youth Development and Community Resource Development. Each committee is composed of External University and External Non-University Personnel. They met twice during the year. In the first meeting, Extension staff presented the Preliminary Plan of Work for the upcoming year and members of the committee were asked to present their views and recommendations related to the POW. The program area leaders, together with other Extension staff, defined the educational strategies to address the recommendations offered by the committee members. These were then incorporated in the final POW as needed. During the second committee meeting an oral and written report were presented by the program area leader which identify how the committee recommendations were addressed and the Annual Report of Accomplishment was presented to the committee.

III. Stakeholder Input

1. Actions taken to seek stakeholder input that encouraged their participation

- Targeted invitation to traditional stakeholder individuals

Brief explanation.

At the local level, the Local Advisory Committees main task is to collect input from our local stakeholders. The committees are composed of at least two participants from each of the base program areas (Agriculture, Marketing and Natural Resources; Family and Consumer Sciences; 4-H and Youth Development and the Community Resource Development) and a minimum of two representatives from local agencies that work with similar audiences as Extension. To encourage their participation, potential members received an invitation letter where it explained the importance of the process and their participation as a contribution to improve Extension educational programs, besides the benefits of working together for a common good.

2(A). A brief statement of the process that was used by the recipient institution to identify individuals and groups stakeholders and to collect input from them

1. Method to identify individuals and groups

- Use Advisory Committees

Brief explanation.

The members of these committees were selected by the Extension personnel at the local office from among their target audience, based on their experience and participation in the Extension programs and were invited by letter to join the committee.

2(B). A brief statement of the process that was used by the recipient institution to identify individuals and groups who are stakeholders and to collect input from them

1. Methods for collecting Stakeholder Input

- Meeting with traditional Stakeholder individuals

Brief explanation.

The process to collect the stakeholder input took place through meetings. The committee met twice during the year to discuss critical issues locally, as well as to identify emerging issues that could be addressed by Extension. Each local committee identified priority issues in each of the four program areas.

3. A statement of how the input will be considered

- To Identify Emerging Issues
- Redirect Extension Programs
- In the Staff Hiring Process
- In the Action Plans
- To Set Priorities

Brief explanation.

Input collected from stakeholders at the Local Advisory Committees was reported to the state level. This data was evaluated by state program leaders in order to identify emerging issues that should be included in the state plan of work or redirect programs when needed. Issue identified by framers and other agricultural representatives that required or suggested a research agenda, when referred to the Agricultural Experiment Station. At the local level, municipalities set priorities for the local plan of work according to the stakeholder's input.

Brief Explanation of what you learned from your Stakeholders

Most of the input received from our stakeholders relates to the needs and situations affecting our individuals and communities and our society in general. Most of the issues identified for FY 2014 continue to be those from FY 2013. As people continue to gain awareness about Food Security through our Planned Programs, there has been an increased interest in vegetable gardening, both at the household level and at the community level including school garden.

Other major issues identified by our stakeholders are obesity, particularly among children and youth. Stakeholders coincide that contributing factors are mainly bad food choices and lack of physical activity. Therefore, Extension through two of the National Initiative, Childhood Obesity and

Food Security, has been addressing these issue. Since the situation is perceived to persist, these will continue to be major issues for our Planned Programs for years to come.

Among Agricultural issues, our stakeholders coincide in the importance of creating awareness about food security at our state level. They have also mentioned that importance of promoting sustainable agricultural practices, protecting our agricultural lands and natural resources, developing efficient marketing strategies as well as issues related to agricultural financing. All are issued that Extension addresses through our Agricultural related Planned Programs but that needs to provide continue update and still are ranked as priorities.

Issues affecting children, youth and families, in addition to obesity, stakeholders are mainly concerned with the domestic violence affecting our women and children. This continues to strengthen the importance of our state level Family Well-being Planned Program which emphasize in parenting skill and social and personal values through our educational curriculum directed at adults, youth and the elderly. Stakeholders also recognized the contribution of Extension addressing these and other issues affecting our youth, through our 4-H clubs organized in schools and communities.

At the community level, some stakeholders still confuse our educational services with those from other governmental agencies as they present the infrastructural needs from their own communities such as repairing roads and other building needs, which Extensionists redirect to the concerning agencies. Communities emphasized the importance of developing leadership skills among their members. Must stakeholders also coincide in the importance of continue developing community - based businesses as a strategy to alternate the economic crisis affecting our population.

IV. Expenditure Summary

1. Total Actual Formula dollars Allocated (prepopulated from C-REEMS)			
Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
6449786	0	0	0

2. Totaled Actual dollars from Planned Programs Inputs				
	Extension		Research	
	Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
Actual Formula	6551330	0	0	0
Actual Matching	3224892	0	0	0
Actual All Other	0	0	0	0
Total Actual Expended	9776222	0	0	0

3. Amount of Above Actual Formula Dollars Expended which comes from Carryover funds from previous				
Carryover	0	0	0	0

V. Planned Program Table of Content

S. No.	PROGRAM NAME
1	Plant System
2	Animal Systems
3	Family Well-being
4	Food Safety
5	Strengthening Youth Life Skills, Leadership and their Community
6	Community Resources Development by Means of Fostering Sustainable Communities
7	Climate Change
8	Sustainable Energy
9	Global Food Security and Hunger
10	Adult and Childhood Obesity

V(A). Planned Program (Summary)

Program # 1

1. Name of the Planned Program

Plant System

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
204	Plant Product Quality and Utility (Preharvest)	9%			
205	Plant Management Systems	15%			
211	Insects, Mites, and Other Arthropods Affecting Plants	15%			
212	Diseases and Nematodes Affecting Plants	10%			
216	Integrated Pest Management Systems	15%			
403	Waste Disposal, Recycling, and Reuse	8%			
405	Drainage and Irrigation Systems and Facilities	8%			
601	Economics of Agricultural Production and Farm Management	7%			
602	Business Management, Finance, and Taxation	6%			
604	Marketing and Distribution Practices	7%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2014	Extension		Research	
	1862	1890	1862	1890
Plan	30.0	0.0	0.0	0.0
Actual Paid	25.2	0.0	0.0	0.0
Actual Volunteer	0.0	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
1021324	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
502747	0	0	0
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

- Technical production training meetings.
- Capacity building workshops
- Demonstration of methods
- Meetings, visits and guidance to farmers
- Collaboration with state, local and federal government agencies.
- Use of mass media to disseminate information.
- Preparation of technical plans (IPM, irrigation systems, cultivation practices)
- Prepare curricula and other educational materials

2. Brief description of the target audience

Farmers, government professionals, county agents, agricultural entrepreneurs, pesticide applicators, homeowners, landscapers, and professionals from the private sector.

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	72983	81629	6109	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 producers trained in integrated coffee management.

Year	Actual
2014	373

Output #2

Output Measure

- Number of producers trained in banana and plantain management.

Year	Actual
2014	1035

Output #3

Output Measure

- Number of producers trained in integrated starchy crops management.

Year	Actual
2014	345

Output #4

Output Measure

- Number of producers trained in integrated vegetable management.

Year	Actual
2014	1441

Output #5

Output Measure

- Number of producers trained in integrated tropical fruits management.

Year	Actual
2014	175

Output #6

Output Measure

- Number of producers trained in integrated citrus management.

Year	Actual
2014	525

Output #7

Output Measure

- Number of persons trained in vegetable gardening.

Year	Actual
2014	7709

Output #8

Output Measure

- Number of collaborations established to improve outreach in vegetable gardening.

Year	Actual
2014	271

Output #9

Output Measure

- Number of educational activities offered about vegetable gardening.

Year	Actual
2014	923

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Number of farmers that adopted one or more recommended practices for integrated coffee management.
2	Number of producers that increased production and quality of coffee.
3	Number of producers that adopted one or more recommended practices for integrated plantain and banana management.
4	Number of producers that increased production in plantain.
5	Number of producers that adopted one or more recommended practices for vegetable management.
6	Number of producers that increased production in vegetable crops.
7	Number of producers that adopted one or more recommended practices for citrus management.
8	Number of producers that increased production in citrus.
9	Number of producers that acquired knowledge after completing a course in vegetable gardening.
10	Number of persons that established a vegetable garden after completing a course in vegetable gardening.

Outcome #1

1. Outcome Measures

Number of farmers that adopted one or more recommended practices for integrated coffee management.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	296

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
216	Integrated Pest Management Systems
403	Waste Disposal, Recycling, and Reuse

Outcome #2

1. Outcome Measures

Number of producers that increased production and quality of coffee.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	132

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
216	Integrated Pest Management Systems
601	Economics of Agricultural Production and Farm Management

Outcome #3

1. Outcome Measures

Number of producers that adopted one or more recommended practices for integrated plantain and banana management.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	567

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Diseases and Nematodes Affecting Plants
216	Integrated Pest Management Systems

Outcome #4

1. Outcome Measures

Number of producers that increased production in plantain.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	257

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems

216	Integrated Pest Management Systems
601	Economics of Agricultural Production and Farm Management
604	Marketing and Distribution Practices

Outcome #5

1. Outcome Measures

Number of producers that adopted one or more recommended practices for vegetable management.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	789

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Diseases and Nematodes Affecting Plants
216	Integrated Pest Management Systems

Outcome #6

1. Outcome Measures

Number of producers that increased production in vegetable crops.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	482

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Diseases and Nematodes Affecting Plants
216	Integrated Pest Management Systems
601	Economics of Agricultural Production and Farm Management

Outcome #7

1. Outcome Measures

Number of producers that adopted one or more recommended practices for citrus management.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	295

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Diseases and Nematodes Affecting Plants
216	Integrated Pest Management Systems

Outcome #8

1. Outcome Measures

Number of producers that increased production in citrus.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	58

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
216	Integrated Pest Management Systems

Outcome #9

1. Outcome Measures

Number of producers that acquired knowledge after completing a course in vegetable gardening.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	7709

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

In the last years people in Puerto Rico are interested in producing their own food due to increased food cost and pesticide issues associated to food production.

What has been done

Vegetable gardening projects and educational activities were established and delivered throughout the Island to show puertoricans how to produce healthy vegetables, fruits, herbs and other products in their yards and improve their health, with ecological and sustainable practices. PRAES agents offered trainings and orientations to the general public, including the distribution of educational materials.

Results

7,709 persons acquired knowledge after completing a course in vegetable gardening. The main outcome obtained as a result of the demonstrational projects and educational activities was that 20% of the trained persons established a vegetable garden in their yards as a result of the educational program. There was an increase in the understanding of vegetable gardening by people, and an increase in the use of sustainable management strategies including cultural control and use of botanical and natural pesticides.

4. Associated Knowledge Areas

KA Code	Knowledge Area
204	Plant Product Quality and Utility (Preharvest)
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Diseases and Nematodes Affecting Plants
216	Integrated Pest Management Systems

Outcome #10

1. Outcome Measures

Number of persons that established a vegetable garden after completing a course in vegetable gardening.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	1525

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
204	Plant Product Quality and Utility (Preharvest)

205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Diseases and Nematodes Affecting Plants
216	Integrated Pest Management Systems

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy

Brief Explanation

Crop production was affected by key pests. Citrus greening, Black Sigatoka in plantain and viral diseases in vegetables are the major constraints in production due to pest control costs increase. During 2014, as in previous years, heavy rainfall and high temperatures promoted the presence of diseases that affected crop production.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

No evaluation conducted in 2014.

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 2

1. Name of the Planned Program

Animal Systems

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	5%			
132	Weather and Climate	5%			
133	Pollution Prevention and Mitigation	5%			
301	Reproductive Performance of Animals	15%			
302	Nutrient Utilization in Animals	10%			
303	Genetic Improvement of Animals	10%			
306	Environmental Stress in Animals	10%			
311	Animal Diseases	5%			
313	Internal Parasites in Animals	5%			
315	Animal Welfare/Well-Being and Protection	10%			
401	Structures, Facilities, and General Purpose Farm Supplies	10%			
405	Drainage and Irrigation Systems and Facilities	5%			
601	Economics of Agricultural Production and Farm Management	5%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2014	Extension		Research	
	1862	1890	1862	1890
Plan	18.4	0.0	0.0	0.0
Actual Paid	18.1	0.0	0.0	0.0
Actual Volunteer	0.0	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
733924	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
361274	0	0	0
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

1. Conduct seminars, meetings, trainings and workshops
2. Farm visits
3. Educational material (publications, newsletters, CDs)
4. Develop proposals to find external resources as a means to conduct applied research to address the current needs in livestock production
5. Offer counseling and orientation
6. Work in collaboration with communication media
7. Establish collaborations with government agencies (e.g., Environmental Quality Board; State Departments of Health, Agriculture, Environmental and Natural Resources, and Education; Puerto Rico Aqueducts and Sewage Authority; USEPA; USDA; NRCS; and others)
8. Improve collaboration with our partners at the University of Puerto Rico and other educational institutions
9. Develop educational material consisting of model plans and educational material (publications, newsletters, CDs)

2. Brief description of the target audience

Farmers, agricultural entrepreneurs, animal rights organizations, schools, PRAES professionals, government personnel, community leaders, and professionals from the private sector.

3. How was eXtension used?

www.eXtension.org has been used as a source of information by Extension Specialists to complement training presentations and materials offered to Extension Agents as well as professional development material.

V(E). Planned Program (Outputs)

1. Standard output measures

2014	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	410	120	26	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 farmers trained in recommended bio-security practices as a means to mitigate diseases and increase animal production.

Year	Actual
2014	1126

Output #2

Output Measure

- Number of farmers trained in practices in animal welfare and protection.

Year	Actual
2014	1377

Output #3

Output Measure

- Number of farmers trained in recommended practices in recordkeeping, disease control and prevention, and feed utilization.

Year	Actual
2014	604

Output #4

Output Measure

- Number of dairy-beef farmers trained in recommended practices that are efficient against internal parasites in Puerto Rico.

Year	Actual
2014	223

Output #5

Output Measure

- Number of farmers trained in the effects of climate change on livestock production.

Year	Actual
2014	322

Output #6

Output Measure

- Number of farmers trained in the implementation of alternative crops/forages as a means to improve nutrient utilization in livestock production.

Year	Actual
2014	317

Output #7

Output Measure

- Number of farmers trained in recommended economic practices associated with efficiency in livestock production.

Year	Actual
2014	170

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Number of farmers that adopted a bio-security program.
2	Number of farmers that adopted practices in animal welfare and protection.
3	Number of farmers that increased animal production after adopting the recommended recordkeeping, disease control and prevention, and feed utilization practices.
4	Number of farmers that adopted practices for the control of parasites on their farms.
5	Number of farmers that adopted one or more practices to control heat stress.
6	Number of persons that improved the nutrient utilization practices in animals.
7	Number of farmers and agricultural entrepreneurs that used economic tools to make effective economic decisions to improve their business.

Outcome #1

1. Outcome Measures

Number of farmers that adopted a bio-security program.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	95

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
311	Animal Diseases
313	Internal Parasites in Animals
315	Animal Welfare/Well-Being and Protection

Outcome #2

1. Outcome Measures

Number of farmers that adopted practices in animal welfare and protection.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	163

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
133	Pollution Prevention and Mitigation
302	Nutrient Utilization in Animals
306	Environmental Stress in Animals
311	Animal Diseases
313	Internal Parasites in Animals
315	Animal Welfare/Well-Being and Protection

Outcome #3

1. Outcome Measures

Number of farmers that increased animal production after adopting the recommended recordkeeping, disease control and prevention, and feed utilization practices.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	116

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
301	Reproductive Performance of Animals
302	Nutrient Utilization in Animals
303	Genetic Improvement of Animals
306	Environmental Stress in Animals
311	Animal Diseases
313	Internal Parasites in Animals
315	Animal Welfare/Well-Being and Protection

Outcome #4

1. Outcome Measures

Number of farmers that adopted practices for the control of parasites on their farms.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	112

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Heifers with gastrointestinal parasites display several symptoms such as diarrhea, weight loss, slower growth rate, which translates in prolonged age to puberty, and date to first calving. All these factors decrease efficiency of production in the dairy farms around the world. In Puerto Rico there is only 3 types of anthelmintics available to treat animals with gastrointestinal parasites and have been used for more than 2 decades. This scenario can be associated with parasite resistant development to these anthelmintics.

What has been done

Research-Extension personnel developed a study to compare the effect of 4 different commercial anti-parasites on fecal parasite load in heifers (n=199). Twenty one dairy farms were included in the study. Each participant dairy farmer was trained about parasite control strategies and proper product application (e.g., product rotation schedule, management practices to reduce resistance development, etc). Extension personnel associated with participant dairy farmers assisted in the study.

Results

It was found that gastrointestinal parasites in the dairy farms included in the study demonstrated resistance to certain commercially available anthelmintics. To spread the results, 3 stakeholder dissemination meetings were held in different regions of the island. One in the southeast (Agricultural Station in Gurabo with 53 farmers) North (Camuy with 55 farmers) and in the West (San Sebastian with 65 farmers). Extension Agents of each region participated in the events. These were instructed to visit dairy farmers that were not able to go to the meetings to disseminate the results. This collaborative study developed awareness of the importance of proper use of anthelmintics and its significance in increasing efficiency of production in dairy herds. This Research and Extension initiative could be associated with the elevated number of farmers that adopted practice for the control of parasites on their farms.

4. Associated Knowledge Areas

KA Code	Knowledge Area
303	Genetic Improvement of Animals
311	Animal Diseases
313	Internal Parasites in Animals
315	Animal Welfare/Well-Being and Protection

Outcome #5

1. Outcome Measures

Number of farmers that adopted one or more practices to control heat stress.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	35

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
303	Genetic Improvement of Animals
306	Environmental Stress in Animals
315	Animal Welfare/Well-Being and Protection
401	Structures, Facilities, and General Purpose Farm Supplies

Outcome #6

1. Outcome Measures

Number of persons that improved the nutrient utilization practices in animals.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	72

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
302	Nutrient Utilization in Animals
303	Genetic Improvement of Animals
306	Environmental Stress in Animals
313	Internal Parasites in Animals
315	Animal Welfare/Well-Being and Protection
405	Drainage and Irrigation Systems and Facilities
601	Economics of Agricultural Production and Farm Management

Outcome #7

1. Outcome Measures

Number of farmers and agricultural entrepreneurs that used economic tools to make effective economic decisions to improve their business.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	80

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
601	Economics of Agricultural Production and Farm Management

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities

Brief Explanation

In the current report we observed an increase in the number of persons that adopted one or more recommended practices in outcomes shared between current and previous report (i.e., Biosecurity, Animal Welfare and Record Keeping). However, the number of direct and indirect adults and indirect young that were reached through the different dissemination methods was reduced considerably. This could be due to educational activities or agricultural fairs of large participation, particularly intended for youth that did not take place in 2013

V(I). Planned Program (Evaluation Studies)

Evaluation Results

We are currently working together with the Dairy Herd Improvement Association to train our Extension Agents working with Dairy Farmers about creation of records using PC Dart. We expect to improve the quality and accuracy of the data collected in our online report system (SISE). In addition, together with personnel of the Experimental Station we are trying to increase efforts to improve the record keeping of other animal production systems.

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 3

1. Name of the Planned Program

Family Well-being

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
607	Consumer Economics	10%			
724	Healthy Lifestyle	20%			
801	Individual and Family Resource Management	30%			
802	Human Development and Family Well-Being	40%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2014	Extension		Research	
	1862	1890	1862	1890
Plan	21.4	0.0	0.0	0.0
Actual Paid	18.8	0.0	0.0	0.0
Actual Volunteer	1.0	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
764369	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
376261	0	0	0
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

- Participate in radio/TV Programs
- Educational Campaign
- Curriculum and educational materials development.
- Provide Training
- Conduct Workshops meetings and short courses.
- Establishment of collaborations
- Orientation
- Exhibitions (Billboards in malls and public places with informative brochures and other educational material).

2. Brief description of the target audience

Extension agents, home economists, PRAES specialists, professionals from other agencies, parents, low income families, children, youth, elder people, volunteers, new couples, at risk population and the general public.

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	11496	2863	8389	1628

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 persons that completed courses in parenting and related areas.

Year	Actual
2014	2708

Output #2

Output Measure

- Number of persons that completed courses in aging aspects.

Year	Actual
2014	1509

Output #3

Output Measure

- Number of persons that completed the Consumer Education course.

Year	Actual
2014	1653

Output #4

Output Measure

- Number of persons that completed individual and family resource management course.

Year	Actual
2014	816

Output #5

Output Measure

- Number of persons that completed non-formal health education and health promotion programs.

Year	Actual
2014	862

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Number of persons that reported improved parenting skills.
2	Number of persons that gained knowledge in aging aspects.
3	Number of consumers that adopted the practice of preparing their individual family budget.
4	Number of persons that reduced their risk levels upon the completion of one or more recommended lifestyles.
5	Number of consumers that adopted savings practices through goods and services selection process (Consumer Education course)

Outcome #1

1. Outcome Measures

Number of persons that reported improved parenting skills.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	1515

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The increase of family violence, child maltreatment and neglect in Puerto Rico is a social problem affecting quality of lives of families, individuals and children. (PR Census, 2010)

What has been done

To attend this issue, the Family life and Child development specialist developed and educational material and implemented a Family violence Prevention campaign at state level during the month of November (National Family Month) . Extension educators of the FCS program developed the campaign in their counties. Also, we established collaborations with state and local government, agencies, institutions and faith base communities and leaders to disseminate the information.

Results

As result of that, one hundred sixty two (162) collaborations were established, one hundred (101) educational campaigns were developed ,seventeen thousands and six hundred eighty eight (17,688) individuals and families benefited through the educational information, such as the utilization of different methodologies and strategies.(workshops, information centers, courses, orientations, social mass media , etc.)

4. Associated Knowledge Areas

KA Code	Knowledge Area
802	Human Development and Family Well-Being

Outcome #2

1. Outcome Measures

Number of persons that gained knowledge in aging aspects.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	762

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The elder population is increasing in our society with a longer life expectancy. In this stage of life, elderly presented the following needs: loneliness, depression, low self-esteem, and other situations related to aging process and aspects.

What has been done

As result of that, a course on "Buscando Mi Centro y Viviendo en Armonía" (Finding my Center and Living in Harmony) was offered to increase participants knowledge and skills to decrease face losses, loneliness, and depression and increase self-esteem.

Results

A total of 1,509 elders participated in the courses of aging aspects. As result of that, 762 (50%) participants gained knowledge and develop skills toward aging, self-esteem, loneliness, and other situations related to the aging process. Participants expressed a decrease of emotional depression and loneliness and an improvement in the relations with family members and friends. FCS Extension educators will continue to offer this course to other elderly.

4. Associated Knowledge Areas

KA Code	Knowledge Area
802	Human Development and Family Well-Being

Outcome #3

1. Outcome Measures

Number of consumers that adopted the practice of preparing their individual family budget.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	711

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management

Outcome #4

1. Outcome Measures

Number of persons that reduced their risk levels upon the completion of one or more recommended lifestyles.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	663

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
724	Healthy Lifestyle

Outcome #5

1. Outcome Measures

Number of consumers that adopted savings practices through goods and services selection process (Consumer Education course)

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	344

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
607	Consumer Economics

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Public Policy changes
- Competing Programmatic Challenges

Brief Explanation

Economic issues affecting individuals and families might have affected their participation in the programs. In addition, the retirement of FCS professionals resulted in fewer personnel to work with participants.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Evaluation is planned for Fiscal Year 2015.

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 4

1. Name of the Planned Program

Food Safety

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
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins	100%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2014	Extension		Research	
	1862	1890	1862	1890
Plan	7.4	0.0	0.0	0.0
Actual Paid	9.3	0.0	0.0	0.0
Actual Volunteer	0.0	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
376705	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
185433	0	0	0
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

- Worked in collaboration with the communication media.

- Worked in partnership with other agencies to develop educational programs.
- Offered Safe Food Handling Curriculum to consumers. This curriculum includes Food safety for pregnant women, food safety around the year, and food safety during emergencies.
- Exhibits, information centers, radio shows, among others.
- Offered Food Safety Course to Food Establishment managers PRAES and personnel of other agencies
- Trainings: Emphasis on institutions that serve At-Risk Population in the Food Code regulations, Hazard Analysis and Critical Control Points, Food Defense, and others.

2. Brief description of the target audience

- Extension professionals and other professionals
- Parents and persons that plans/buys/prepares food for the family
- Consumers with an emphasis on At risk Population
- Persons in Charge of Retail Food Establishments

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	11939	4481	1273	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	1	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of consumers completing one Food Safety educational curriculum for consumers.

Year	Actual
2014	1037

Output #2

Output Measure

- Number of persons in charge of food establishments completing Food Safety Course.

Year	Actual
2014	4036

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Number of consumers that adopted one or more food handling practices.
2	Number of participants that approved the certification exam.
3	Number of participants that adopted three or more of eight selected food handling practices recommended by the Food Code to control, reduce or eliminate contamination risks.

Outcome #1

1. Outcome Measures

Number of consumers that adopted one or more food handling practices.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	1037

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

CDC (Center for Disease and Prevention) estimates that each year roughly 1 in 6 Americans (or 48 million people) gets sick, 128,000 are hospitalized, and 3,000 die of foodborne diseases. Langiano, et al (2012) concluded the home environment is a proper site for the spread of pathogens that may cause food borne illnesses. They also established that consumers should be informed about safe food handling practices at home to lower the risk of foodborne illness.

What has been done

PRAES Home Economists offer Families the food safe curriculum. This curriculum includes three units that consist of 11 lessons from which Home economists select and customize their course according to their clientele?s needs. Among the topics covered are: Fours steps for Food Safety, Food Safety for mom?s to be and moms with infants, Food Safety for susceptible population, Food Safety during emergencies, and Safe handling at the vegetable garden.

Results

1037 consumers completed a short course on food safety. PRAES Home Economists had a variety of lessons from which they selected and combined according to their clientele?s necessities. Among the changes reported by the participants were: 72% of the consumers avoided cross contamination; 80% cleaned and sanitized food contact surfaces; 60% reduced holding time to 2 hours when food was exposed to the danger zone; 84% of consumers washed their hands frequently and 45% used a food thermometer to measure food temperatures.

4. Associated Knowledge Areas

KA Code	Knowledge Area
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

Outcome #2

1. Outcome Measures

Number of participants that approved the certification exam.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	4033

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Puerto Rico Health Department adopted the Food Code in the year 2000, which requires that all People in Charge of a Food Establishment must demonstrate knowledge in proper food safety procedures. In the Food Code of 2013, it requires that they must have completed a food Safety Course. Puerto Rico Health Department requires that this course is taken every 3 years in order for food managers keep updated on changes occurring in the regulation.

What has been done

PRAES has 8 Home Economists whom are certified Food Safety trainers. They offered 119 Food Safety Courses throughout the Island. In order to approve the course, participants must pass a test with a score of 70 % or more. PR Health Department Inspectors participated in these courses speaking about Puerto Rico's Regulation for Food Establishments and what are they looking for when performing an inspection.

Results

4,036 Food Managers completed Food Safety Course from which 99% scored 70% or more in the test. The Food Safety course covers knowledge areas required by the Food Code 2013 and Food Defense. This test measures the knowledge that participants obtain on the topics that the Food Code require for the person in charge of a food establishment.

4. Associated Knowledge Areas

KA Code	Knowledge Area
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

Outcome #3

1. Outcome Measures

Number of participants that adopted three or more of eight selected food handling practices recommended by the Food Code to control, reduce or eliminate contamination risks.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	3314

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

According to CDC (2014) more than half of foodborne illness outbreaks occur in restaurants and delis.

What has been done

PRAES offers Food Safety Courses to Food Managers. As part of our 12 lesson course PR Health Inspector offers a lesson in which he/she discusses the Inspection Sheet that is used during their visit and what they expect during an inspection to a food establishment. During the lesson the health inspector applies the knowledge obtained in the prior lessons in an inspection. Food Managers are able to clarify any doubts they may have about the application of proper food safety procedures learned during the course.

Results

Among the practices adopted by the Food Managers after participating in the course were: 79% of the Food Managers prepared a plan for temperature control; 84% washed their hands between tasks; 66% verified holding food temperature; 72% used disposable gloves or utensils when handling ready to eat food; 75% thawed food using one of the methods required by Food Code; 58% kept hot food at 135F ; 56% cooled food following Food Code recommendations; 59% prepared a written procedure for clean-up of vomiting and diarrhea event; and 75% used proper water temperatures for dish washing.

4. Associated Knowledge Areas

KA Code	Knowledge Area
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities

Brief Explanation

Puerto Rico, as in many other places, is going through a major financial crisis, which may or may not be solved in the near future. We expect changes in the amount of money assigned to our government's budget. This will have a domino effect on agencies and instrumentalities, as well as public policies and regulations.

On occasions, the support needed from the Municipal governments may vary if their priorities are different from the ones established by our program; especially when part of the program is based on a different paradigm. It could take time for individuals, including our personnel, to change their attitudes and adopt a new model.

On the other hand, there have been some changes in the PRAES personnel. New personnel have been recruited and have incorporated Food Safety topics in other nutrition trainings they offer. During this past year we have trained School lunch program managers that had their certifications expired.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Annual evaluation is conducted to measure knowledge gained among persons in charge of food establishments completing the Food Safety Certification Course. The result is presented in outcome #2 which shows that 99% scored 70% or more in the test.

Key Items of Evaluation

Knowledge gained after Food Safety Certification Course

V(A). Planned Program (Summary)

Program # 5

1. Name of the Planned Program

Strengthening Youth Life Skills, Leadership and their Community

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
806	Youth Development	100%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2014	Extension		Research	
	1862	1890	1862	1890
Plan	34.0	0.0	0.0	0.0
Actual Paid	35.1	0.0	0.0	0.0
Actual Volunteer	25.4	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
1426038	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
701967	0	0	0
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

- Conferences or workshops training in life skills, leadership, and community services.

- Camping and outdoor activities.
- Educational material developed in life skills, leadership and community service.
- Participate in mass communication to promote 4-H as a positive organization for youth.
- Projects where youth and adults volunteers can develop skills that will enable them to make a positive contribution to society.
- Competitive activities/events.
- Non-competitive activities/events.

2. Brief description of the target audience

Youth and 4-H members, Extension professionals (agricultural agents and specialists, home economists), professional government personnel, volunteers, and community residents.

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	5047	0	43920	9984

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	3	0	3

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of children/ youth who participated in life skills and subject matter educational programs designed to teach basic life skills.

Year	Actual
2014	3863

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Number of children/youth who demonstrated improved managing skills (decision making, problem solving, planning, organization and service learning, according to the Targeting Life Skills Model).
2	Number of children/youth who demonstrated improved relating skills (communication).
3	Number of children/youth who demonstrated improved giving and working skills (leadership, community service volunteering, teamwork).
4	Number of children/youth who demonstrated improved being and living skills (self-esteem and healthy lifestyle choices).

Outcome #1

1. Outcome Measures

Number of children/youth who demonstrated improved managing skills (decision making, problem solving, planning, organization and service learning, according to the Targeting Life Skills Model).

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	2938

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Puerto Rico's Positive youth development program is designed to provide youth with positive opportunities to learn and interact with peers and adults, develop competencies and life skills essential for adult success.

What has been done

The National State Conference is our local major opportunity to engage youth in leadership and positive opportunities. Also it is a platform to practice decision making, problem solving, teamwork and communication skills, among others. The three days conference emphasized the creation of personal networks with peers and adults in order to work together to develop and participate in communities, issues affecting citizens well-being. Connections with elderly, with peers, with youth with disabilities and lesbian, gay transgender youth community were the areas worked in the conference. Youth demonstrated through different activities the role that 4-H can play in addressing those issues.

Results

One hundred sixteen (116) 4-H youth participated in the three days? conference. In addition, thirty three (33) 4-H youth participating in 4-H activities and main projects around the island were selected to represent Puerto Rico in the National 4-H Congress and National 4-H Conference to demonstrate at other levels the knowledge and leadership's skills gained through the opportunities provided by Puerto Rico 4-H program.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #2

1. Outcome Measures

Number of children/youth who demonstrated improved relating skills (communication).

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	1793

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

In today's world it is important that youth develop good communication skills that will help them to contribute to their society. It is important, as well, to discover the media world around them and develop critical thinking skills to better understand media messages and apply those critical thinking skills to daily situations.

What has been done

Through a diversity of activities, 4-Hers were exposed to different opportunities to develop and improve their communication skills. These activities included public speaking contests, artistic representation to disseminate cancer prevention messages, interviews with national newspapers, local tv and radio media programs as well as oral presentations with government and university officials.

In addition, through a specific project named Strategic Prevention Plan to Prevent the Use and Abuse of Alcohol, Tobacco, and Other Drugs (ATOD) targeted for minors 5 to 18 years old, 4-H students (3rd - 5th grade) were exposed to activity-based media literacy program, called Media Detective where youth discover the media world around them and develop critical thinking skills to better understand media messages.

Results

1,793 4-H members reported improving their communication skills and used their voices to become positive contributing citizens who make an impact on their communities. The media events launched the 4Hers to new experiences where they acquired tools to be more effective delivering messages and also provided the opportunities to develop life skills.

Through the ATOD project, sixty-two (62) participants increased their critical thinking skills and learned media literacy skills. This year to increase the sustainability of this strategy in Carolina

and other municipalities, we propose to train and certify at least ten educators (school teachers, 4-H volunteers and Extension Faculty).

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #3

1. Outcome Measures

Number of children/youth who demonstrated improved giving and working skills (leadership, community service volunteering, teamwork).

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	3338

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

In Puerto Rico 50.9% of children and young people less than 18 years live under the poverty level. Youth Development is a mayor emphasis area of the Puerto Rico 4-H and Youth Development Program for its long-range educational program. It is designed to provide youth with positive opportunities to learn and interact with peers and adults, provide leadership development, and focus on the enhancement of life skills to prevent negative high risk conduct through research-based educational programs focusing on healthy lifestyles; science, engineering and technology; citizenship and leadership.

What has been done

3,863 youth were involved in activities with emphasis in Strengthening youth life skills, leadership and their community. In the 4-H Research and Outreach project for non-point source pollution at Cabo Rojo Coastal communities we developed an Internship for thirty-(30) 4-H youth (14-18 years old) on Research and Outreach activities. Youth participating in this project developed research and outreach projects targeting non-point source pollution issues. In the 4-H project ?Geroamigable?, twenty five 4-H members from Lucky Clover Club developed and planned a project to increase the knowledge and dissemination of the value of elderly people in the communities.

Results

Successful environmental projects presented by youth in a scientific poster session, demonstrated:

- Youth gained awareness of responsibility with the environment
- Participants Increase the knowledge in the issues researched
- 4-H youth have knowledge and commitment to participate actively in community
- Youth researchers are interest to develop an outreach plan to encourage the public to reduce pollutant transport to the coral reef ecosystem.
- Strong environmental leadership

In the "Geroamigable" project the 4-H lucky Clover Club established a food garden in school and celebrated the Grandparent's Day. Also they offered workshops for students, parents and faculty staff. The best accomplishment of this project was the recognition received by Merck Pharmaceutical as Health Innovation Project leading by youth. The group's leaders received the opportunity to be part of an internship in Merck Pharmaceutical during 2015 summer.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

Outcome #4

1. Outcome Measures

Number of children/youth who demonstrated improved being and living skills (self-esteem and healthy lifestyle choices).

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	1704

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Competing Programmatic Challenges

Brief Explanation

At this moment we have an unstable economy. This has affected our participants in some educational activities.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

To continue improve our 4-H and Youth Development program, during fiscal year 2014, we conducted an internal process evaluation with our Extension Agents (including Agricultural Agents and Home Economists). The objective of the evaluation was to receive input from our agents in diverse areas of the program, specifically focusing in the methodologies that could be more effective in the development of life skills, and the identification of their needs in order to make decisions that result in a better program to our youth. There were nine focus groups conducted Island wide in the five Extension regions with a total of 81 participants.

According to our Agents the five methodologies that are more appropriate and that have resulted in the development of various life skills are: camps, contests, short courses, workshops and field trips. The life skills that can be better develop through these methodologies are: communication, team work, leadership, sharing, decision making and auto-responsibility. All of these methodologies are employed in our 4-H programs continuously. Our agents have become aware through training meetings and their own observations, that these methodologies are indeed effective in promoting life kills among our participants. At the same time they are identifying each life skill and how they can help participants to develop and improve the different life skills according to the educational methodologies, resulting in a more effective program. The more frequently mentioned need among our agents was economic support for the different activities.

Findings of this process evaluation were presented to the Program Leader in order to make decisions that can continue to improve our program.

Key Items of Evaluation

Process evaluation; methodologies to develop life skills.

V(A). Planned Program (Summary)

Program # 6

1. Name of the Planned Program

Community Resources Development by Means of Fostering Sustainable Communities

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
608	Community Resource Planning and Development	50%			
803	Sociological and Technological Change Affecting Individuals, Families, and Communities	40%			
805	Community Institutions and Social Services	10%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2014	Extension		Research	
	1862	1890	1862	1890
Plan	27.0	0.0	0.0	0.0
Actual Paid	26.7	0.0	0.0	0.0
Actual Volunteer	13.3	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
1083026	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
533119	0	0	0
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

- Use of Economic Development "tool box" material that will empower community participants to take advantage of the endless amount of possibilities for community oriented economic initiatives
- Community assemblies, gatherings, and other meetings to establish rapport and explore needs and aspirations
- Conference/training in areas of social investment, marketing, market study and analysis, self-employment opportunities identification, community based business and empowerment
- Participative Action Research strategies such as "reading the streets", participant observation, ethnographies, life histories, focus groups, informal interviews, and reflexive diaries
 - Establishment of strategic alliances with government agencies, non-government organizations and community institutions to collaborate in the promotion of community based economic initiatives
- Development of radio programs with the participation of community members and field personnel to promote community based economic initiatives
- Develop educational material such as curriculum and modules
- Establishment of community coalitions with volunteer organizations, community services organizations, institutions, and other agencies
- Seminars with community services institutions that offer assistance in case of disaster or emergency, including volunteer organizations, non-profit groups and government agencies.

2. Brief description of the target audience

Community participants (i.e., individuals and families), community leaders, extension professionals and other professionals.

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	7960	2609	887	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	1	0	1

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of persons trained in community-based business.

Year	Actual
2014	171

Output #2

Output Measure

- Number of leaders trained in community organization and empowerment (at least four workshops).

Year	Actual
2014	387

Output #3

Output Measure

- Number of leaders trained in emergency and disaster situations (at least four workshops).

Year	Actual
2014	395

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Number of persons applying the recommended practices in the process of developing a community-based business.
2	Number of community-based businesses established.
3	Number of community projects established to benefit the community.
4	Number of leaders participating actively in the design and implementation of community projects.
5	Number of communities that developed an emergency and safety plan.
6	Number of families that developed an emergency and safety plan.

Outcome #1

1. Outcome Measures

Number of persons applying the recommended practices in the process of developing a community-based business.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	114

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Puerto Rico continues experiencing a negative economic growth. 2014 is the ninth year in a row in red numbers which was characterized by the devaluation of government bonds to ?scrap? levels. Puerto Rico?s CRD has focused its 2014 efforts in organizing new communities and their leadership but still continued working this year in giving follow up to potential community entrepreneurs already trained to develop new economic ventures.

What has been done

Our field personnel continue working with participants who have been trained in "The Community Entrepreneurial Tool Box? in previous years to put in place the recommended practices.

Results

Formulation of market need assessment, marketing plan, break-even point analysis and financial plan are the most significant skills and practices put in place by participants. Close to forty percent (39.29%) of last year?s participants have applied one or more of the recommended practices in order to establish a business initiative.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #2

1. Outcome Measures

Number of community-based businesses established.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	8

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #3

1. Outcome Measures

Number of community projects established to benefit the community.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	38

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The reduction of government services (such as green areas maintenance, proper illumination in parks and roads, and trash pickup), increasing criminality rates and other social problems, as well as environmental hazards due to the closeness of agro-industrial activities to communities have been the focus of community-PRAES projects collaboration

What has been done

Community organization, training in the identification of structural and environmental hazards and opportunities, as well as the facilitation of meetings with government agencies and neighboring industries have led to the development of community projects to deal with threats and safeguards.

Results

In Juana Diaz, PR, community leaders with the help of PRAES field personnel, organized the community and meet with the town mayor and a mayor seed producing agroindustry to complain for the utilization of herbicides and pesticides way to close to the community. After a series of meetings and assemblies, a buffer zone was established and the community established 3 community gardens (two for adults and one for youth) that has provided the community with a new source of income and community involvement.

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
805	Community Institutions and Social Services

Outcome #4

1. Outcome Measures

Number of leaders participating actively in the design and implementation of community projects.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	440

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development
803	Sociological and Technological Change Affecting Individuals, Families, and Communities

Outcome #5

1. Outcome Measures

Number of communities that developed an emergency and safety plan.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	2

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

Outcome #6

1. Outcome Measures

Number of families that developed an emergency and safety plan.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	48

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
608	Community Resource Planning and Development

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Appropriations changes
- Other (Changes in Planned Program Priorities)

Brief Explanation

In addition to a 9 years economic recession, Puerto Rico experienced a massive economic impact when this territory government bonds were devaluated to "scrap" level. As planned, during 2014 PRAES CRD program did reduce its efforts in entrepreneurial training to reinforce new communities outreach and organization. We have focused in providing follow up to Stakeholders trained in previous years on the "Community Entrepreneurial Toolbox" workshop series in the areas of artisanship, food confection, craftsmanship, tailoring, children and elderly services, and agricultural production. This is the reason why we had a reduction in the number of new business being established.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

The topic of this year evaluation was the educational activities for emergency management in the programmatic area of CRD. Evaluation activities were performed between august 27 and sept 25, 2014 in four municipalities throughout the Island of Puerto Rico, including rural, coastal, mountain and urban areas. The municipalities were Aguada, Ciales, Salinas and Toa Alta. The group dynamic utilized was Focus Group and the total stakeholders representing Extension's clientele were 35 persons, 26 women and 9 men. Based on the topic, 10 questions were designed and tested. Questions were based on the perceptions of Extension Clientele regarding a Curriculum Guide on Emergency Management, concerns regarding family and community plan, the most important components to be included in the educational guide, importance of the emergency bag, best delivery methodology, and types of training in related topics attended by the stakeholders.

Among the major comments being offered by the stakeholders are:

Effects of the existing curriculum: We had participated in many dialogues, conferences, practice drills, including the 72 hours emergency bag preparation and so on. Thus, we are convinced of the benefit of such guide for our family and for the community as a whole; The main role of the guide is to help us to design an emergency plan. Each community must have a listing of persons with expertise in emergency situations such as doctors, nurses, people with CPR and first aid training. Additionally, emergency phone numbers should be handy; Food preservation is an important component of the guide and a critical issue to survive afterwards; It stress [the idea] that emergency kit is essential for both, family and community centers. A community inventory should be done in each community, documenting number of houses, types of construction, community centers, exit roads in case of flood or other contingency.

Recommendations being offered by Stakeholders for improvements: The educational guide should focus in aspects such as inputs recommended for the emergency bag, including food and medication, especially for us senior citizens and how often it is necessary to replace the emergency bag; We should focus in our home, making sure all members of our family are safe. Then, we can be an asset for our community. If our family is not safe, it is impossible to have any community's impact; Leaders must keep motivating people to do things by themselves. Thus, self-help concept, solidarity and teamwork must be stressed in the guide; Home gardening is a great tool for emergencies because food supply is an issue. The guide must have a section on this with many illustrations and visual aids; The curriculum must stress on the concept of training the trainers; The loss of lives must be prevented at all costs. However, since not matter how hard we try, fatalities,

diseases, plagues and even dead may occur. Therefore, the educational guide should include a component to educate users to confront loss and how to survive and cope under special conditions; The guide must be clear and based on real situations. The emergency aid curriculum and practice drills must be promoted at the elementary, junior high and high school levels; Education should focus in prevention; In the mountain area, there are many houses constructed in the edges of mountains. Under those conditions, a clear plan should be put into place; The guide must be very specific regarding having a contingency plan for meeting with family members, places for putting essential keys, important documents and the emergency bag itself. Students must bring their own ID to school every day, with contact information in case of emergency; Churches should be included in the task of identifying residents and helping them.

These valuable recommendations are being considered and incorporated in the revision of the curriculum guide in the Community Emergency and Disasters Management.

Key Items of Evaluation

Evaluation for a curriculum guide in the Community Emergency and Disasters Management.

V(A). Planned Program (Summary)

Program # 7

1. Name of the Planned Program

Climate Change

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
104	Protect Soil from Harmful Effects of Natural Elements	25%			
111	Conservation and Efficient Use of Water	25%			
112	Watershed Protection and Management	25%			
125	Agroforestry	25%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2014	Extension		Research	
	1862	1890	1862	1890
Plan	5.8	0.0	0.0	0.0
Actual Paid	8.1	0.0	0.0	0.0
Actual Volunteer	0.0	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
330428	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
162653	0	0	0
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

Collaboration was initiated with the USDA Caribbean Climate Sub Hub <http://www.fs.usda.gov/detail/iitf/home/?cid=stelprd3799373> as well as with the PR Climate Change Council (PRCCC) <http://www.drna.gobierno.pr/oficinas/arn/recursosvivientes/costasreservasrefugios/pmzc/prccc/prccc>

This latter one is an association of more than 150 scientists, researchers, agency representatives, planners and NGO's to evaluate how the changes in temperature, precipitation, sea level and other climate parameters could affect the infrastructure and natural resources in Puerto Rico. This information can be useful in generating adaptation recommendations or how to cope with these climate changes at local level. This process can let for reducing vulnerability.

Educational materials were developed, such as a lesson for a curricular guide on Effect of climate change in home gardening. Also a curricular guide was prepared on Climate Change: Community Impact which focused on risk and vulnerability, climatology and forecasts as well as response and risk management in case of natural disasters. Several training meetings were offered to Extension personnel.

A series of Agro-environmental colloquiums were offered in collaboration with the Experimental Station to create awareness on Climate change: Impact and adaptation practices for farming in which the following themes were discussed:

- Climate change: what can we expect
- Puerto Rico Climate Change Council: Mission and perspectives
- Hydrology: Climate change and farming
- Soil health
- Irrigation requirements in a changing climate
- Adaptation strategies used in other countries
- Possible effects of climate change in the insect population.

Those presentations were videotaped as podcasts, that can be accessed to the following internet address; www.eea.uprm.edu/coloquios .

2. Brief description of the target audience

Farmers, communities, government professionals, county Extension personnel, leaders, volunteers, youth

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	1555	1245	757	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	1	0	1

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of people who received capacity development (workshops, seminars, conferences) on climate change.

Year	Actual
2014	860

Output #2

Output Measure

- Number of people who received capacity development (workshops, seminars, conferences) on water quality, watershed protection, and maintenance.

Year	Actual
2014	516

Output #3

Output Measure

- Number of people who received capacity development (workshops, seminars, conferences) on water collection, storage and re-use for agricultural purposes.

Year	Actual
2014	528

Output #4

Output Measure

- Number of people who received capacity development in agroforestry, soil erosion, and storm water runoff control.

Year	Actual
2014	321

Output #5

Output Measure

- Number of people who received capacity development on soil erosion and water environmental regulations.

Year	Actual
2014	175

Output #6

Output Measure

- Number of persons who received capacity development on prevention of brush fires and pasture management.

Year	Actual
2014	393

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Number of people who adopted recommended practices for the adaptation or mitigation of climate change in their farms.
2	Number of people who established watershed protection practices.
3	Number of people who adopted practices to improve water collection, storage, and reuse efficiency.
4	Number of people who adopted agroforestry practices.
5	Number of people who adopted/implemented soil erosion control measures.
6	Number of people who comply with environmental soil erosion and water requirements.
7	Number of people who adopted one or more practices to prevent brush fires and forest fires.

Outcome #1

1. Outcome Measures

Number of people who adopted recommended practices for the adaptation or mitigation of climate change in their farms.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	476

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
104	Protect Soil from Harmful Effects of Natural Elements
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
125	Agroforestry

Outcome #2

1. Outcome Measures

Number of people who established watershed protection practices.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	89

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
104	Protect Soil from Harmful Effects of Natural Elements
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
125	Agroforestry

Outcome #3

1. Outcome Measures

Number of people who adopted practices to improve water collection, storage, and reuse efficiency.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	161

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Agriculture production requires a great amount of water. Rising temperature diminishes soil moisture available for plants. Farmers then have to rely on irrigation water. But often, rain is less frequent. They rely on the Water Authority which is costly or use underground water that is been under regulation due to salinization, reducing the sources of fresh water available.

What has been done

Training, presentations, workshops using a curricular guide on rain water harvesting for agriculture purpose to provide an alternative secure water. Training was provided for farmers and communities. So far: 30% of the participants in capacity development activities have adopted practices to improve water collection

Results

Farmers are considering this alternative and beginning to implement it in their farms for both to reduce cost and to get another source of fresh water. So far 30% of the participants in capacity development activities have adopted practices to improved water collection.

4. Associated Knowledge Areas

KA Code	Knowledge Area
104	Protect Soil from Harmful Effects of Natural Elements
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management

Outcome #4

1. Outcome Measures

Number of people who adopted agroforestry practices.

Not Reporting on this Outcome Measure

Outcome #5

1. Outcome Measures

Number of people who adopted/implemented soil erosion control measures.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	127

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
104	Protect Soil from Harmful Effects of Natural Elements
112	Watershed Protection and Management
125	Agroforestry

Outcome #6

1. Outcome Measures

Number of people who comply with environmental soil erosion and water requirements.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	53

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
104	Protect Soil from Harmful Effects of Natural Elements
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
125	Agroforestry

Outcome #7

1. Outcome Measures

Number of people who adopted one or more practices to prevent brush fires and forest fires.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	64

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
112	Watershed Protection and Management

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)

Brief Explanation

In 2014, twenty eight (28) municipalities from the southern part of Puerto Rico, including mountains and coastal plains, suffered drought period of more than six months. The most affected agriculture commodities were beef, dairy, small animals and coffee. This year, the southern area was also affected by 3,059 brush fires that occurred as of July.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Due to present administrative duties, program evaluation will be conducted starting in 2016.

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 8

1. Name of the Planned Program

Sustainable Energy

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
401	Structures, Facilities, and General Purpose Farm Supplies	15%			
402	Engineering Systems and Equipment	10%			
403	Waste Disposal, Recycling, and Reuse	60%			
405	Drainage and Irrigation Systems and Facilities	15%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2014	Extension		Research	
	1862	1890	1862	1890
Plan	6.5	0.0	0.0	0.0
Actual Paid	6.1	0.0	0.0	0.0
Actual Volunteer	0.0	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
247618	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
121890	0	0	0
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

- Include in our workshops and meetings aspects of sustainable energy with emphasis on structures, waste management and irrigation equipment, and energy conservation.
- Establish collaborations with government agencies (Puerto Rico Electric Power Authority; Environmental Quality Board; Departments of Agriculture, Environmental and Natural Resources, and Education; Puerto Rico Aqueducts and Sewage Authority; USEPA; USDA; NRCS; and others) and with our partners in the University of Puerto Rico and other educational institutions.
- Design and make plans that include and promote energy sustainability and efficiency in structures, waste management systems and irrigation systems (new facilities or improvement to existing facilities).

2. Brief description of the target audience

Extension professionals, government personnel (professional), professionals from the private sector, and farmers.

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	820	556	22	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 workshops and meetings offered which include aspects of alternative energy systems and efficiency.

Year	Actual
2014	54

Output #2

Output Measure

- Number of collaborators from government agencies, partners in the University of Puerto Rico, and other educational institutions.

Year	Actual
2014	36

Output #3

Output Measure

- Number of clients that participated in workshops and meetings offered, which include aspects on energy sustainability and efficiency.

Year	Actual
2014	1162

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Number of government agencies and partners in the University of Puerto Rico and other educational institutions that collaborate in projects that promote energy sustainability and efficiency.
2	Number of clients that made changes in their facilities or established high efficiency equipment that promote energy conservation, environmental benefits, and lower their energy costs.
3	Number of facilities that made changes to promote energy conservation, environmental benefits, and lower their energy costs.

Outcome #1

1. Outcome Measures

Number of government agencies and partners in the University of Puerto Rico and other educational institutions that collaborate in projects that promote energy sustainability and efficiency.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	21

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
401	Structures, Facilities, and General Purpose Farm Supplies
402	Engineering Systems and Equipment
403	Waste Disposal, Recycling, and Reuse
405	Drainage and Irrigation Systems and Facilities

Outcome #2

1. Outcome Measures

Number of clients that made changes in their facilities or established high efficiency equipment that promote energy conservation, environmental benefits, and lower their energy costs.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	55

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The high cost of energy in Puerto Rico still been an issue for the people, the industries and farmers. During 2014, the average Kwh in Puerto Rico was \$0.26, which is almost 2.4 times higher than the USA average (except Hawaii) \$0.11/kwh. This has forced farmer to do changes on their houses and farms to prevail on their business.

What has been done

We prepared educational materials on solar energy systems, efficient use of energy at home and use of renewable energy on the farm. This material was delivered to agricultural agents so they offered workshops to its clientele and later they could apply the knowledge acquired in the workshops in their businesses in the farms and homes.

Results

As example we can mention the agricultural agent for the town of Arecibo offered a workshop on efficient use of energy and use of photovoltaic solar energy at home. As a result of this workshop a client established a photovoltaic solar energy system with 3.0 kW capacity at home. He uses PREPA as back-up. This system reduced his energy bill at only \$3.00 per month which is the charge for the maintenance of the account in PREPA. The energy consumed in your home is produced on the roof of his own home. His savings on energy bill was \$170.00 per month which equals \$2,040.00 a year. It also has a diesel generator for emergencies which used to charge the batteries of the photovoltaic system when necessary. Other example was at Cayey town, where the agricultural Agent gave a workshop on solar energy system on farm. One farmer establish a 2.2 kW photovoltaic solar energy system and bring energy to his hydroponic system and his house. Another client establish a 2.5 kW photovoltaic solar energy system and use the energy as a backup for his house.

4. Associated Knowledge Areas

KA Code	Knowledge Area
401	Structures, Facilities, and General Purpose Farm Supplies
402	Engineering Systems and Equipment

Outcome #3

1. Outcome Measures

Number of facilities that made changes to promote energy conservation, environmental benefits, and lower their energy costs.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	46

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
401	Structures, Facilities, and General Purpose Farm Supplies
402	Engineering Systems and Equipment
403	Waste Disposal, Recycling, and Reuse
405	Drainage and Irrigation Systems and Facilities

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Government Regulations
- Competing Programmatic Challenges
- Other (Availability economic incentives)

Brief Explanation

Recession has extended more than expected in the Island. Besides, we have higher

production costs compared with States in the nation. We are adversely impacted by global economy, high transportation costs, a declining economy with high unemployment rate and low creation of well paid jobs. Lack of competition and availability of funds or incentives to promoted the investment in sustainable technology by farmers or individuals limit the development of proper alternaitves. Thre is the need for a change on Government public policy to facilitate the use of tecnologia fo energy production.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

No evaluation conducted during this year.

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 9

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
131	Alternative Uses of Land	20%			
205	Plant Management Systems	20%			
307	Animal Management Systems	20%			
501	New and Improved Food Processing Technologies	5%			
603	Market Economics	10%			
606	International Trade and Development Economics	5%			
610	Domestic Policy Analysis	10%			
704	Nutrition and Hunger in the Population	10%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2014	Extension		Research	
	1862	1890	1862	1890
Plan	10.4	0.0	0.0	0.0
Actual Paid	3.6	0.0	0.0	0.0
Actual Volunteer	0.0	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
146135	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
71935	0	0	0
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

- Capacity building workshops
- Technical training meeting
- Establish collaborations between the government, the private sector and the academia
- Use of mass media to disseminate information

2. Brief description of the target audience

County extension agents, farmers, government agriculture professionals, housewives/househusbands, retirees and youth

3. How was eXtension used?

Extension was used to gather written information developed by other universities and webinars presented through eXtension were attended by agriculture specialists at UPRM

V(E). Planned Program (Outputs)

1. Standard output measures

2014	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	7543	3619	3584	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 agricultural enterprises feasibility studies.

Year	Actual
2014	110

Output #2

Output Measure

- Number of youth participating in food system educational program.

Year	Actual
2014	4696

Output #3

Output Measure

- Number of adults participating in food system knowledge and skill enhancement programs.

Year	Actual
2014	8169

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Number of individuals that increased their knowledge about international trade and development.
2	Number of public policy issues related with national food security that were reviewed or proposed.
3	Number of farmers that adopted one or more recommended post-harvest practices.
4	Number of fallow "cuerdas"(acres) sowed or prepared for animal production or other agricultural production.
5	Number of consumers that adopted the food basket as a guide for food security at the household level.
6	Number of home gardens established.
7	Number of acres in conservation tillage or other BMP.
8	Number of new or improved value-added products that can be sold by producers (and other members of the food supply chain).
9	Number of marketing agreements established between local farmers and distributors or other components of the food supply chain.
10	Number of producers (and other members of the food supply chain) that have increased revenue.
11	Number of first detectors trained in early detection and rapid response of plant pests, animal pests, and diseases.
12	Number of communities trained in agricultural disaster preparedness.
13	Number of communities that have written agriculture and food considerations into disaster preparedness plans or procedures.
14	Number of networks prepared to mitigate biological and abiotic disruptions.
15	Number of youth that improved knowledge of food systems.
16	Number of adults improved knowledge of food systems.
17	Number of food councils and institutes created to promote practical food systems policies.

18	Number of research and extension advisory councils and boards.
19	Number of communities that retained farm lands due to educational interventions.
20	Number of food security extension publications and presentations.

Outcome #1

1. Outcome Measures

Number of individuals that increased their knowledge about international trade and development.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	1580

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
606	International Trade and Development Economics
704	Nutrition and Hunger in the Population

Outcome #2

1. Outcome Measures

Number of public policy issues related with national food security that were reviewed or proposed.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	26

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
131	Alternative Uses of Land
610	Domestic Policy Analysis
704	Nutrition and Hunger in the Population

Outcome #3

1. Outcome Measures

Number of farmers that adopted one or more recommended post-harvest practices.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	218

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
501	New and Improved Food Processing Technologies

Outcome #4

1. Outcome Measures

Number of fallow "cuerdas"(acres) sowed or prepared for animal production or other agricultural production.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	1585

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
307	Animal Management Systems

Outcome #5

1. Outcome Measures

Number of consumers that adopted the food basket as a guide for food security at the household level.

Not Reporting on this Outcome Measure

Outcome #6

1. Outcome Measures

Number of home gardens established.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	1903

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
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704 Nutrition and Hunger in the Population

Outcome #7

1. Outcome Measures

Number of acres in conservation tillage or other BMP.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	1158

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
307	Animal Management Systems

Outcome #8

1. Outcome Measures

Number of new or improved value-added products that can be sold by producers (and other members of the food supply chain).

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	43

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
501	New and Improved Food Processing Technologies

Outcome #9

1. Outcome Measures

Number of marketing agreements established between local farmers and distributors or other components of the food supply chain.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	13

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
501	New and Improved Food Processing Technologies
603	Market Economics

Outcome #10

1. Outcome Measures

Number of producers (and other members of the food supply chain) that have increased revenue.

Not Reporting on this Outcome Measure

Outcome #11

1. Outcome Measures

Number of first detectors trained in early detection and rapid response of plant pests, animal pests, and diseases.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	13

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
307	Animal Management Systems

Outcome #12

1. Outcome Measures

Number of communities trained in agricultural disaster preparedness.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	17

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
704	Nutrition and Hunger in the Population

Outcome #13

1. Outcome Measures

Number of communities that have written agriculture and food considerations into disaster preparedness plans or procedures.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	11

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
610	Domestic Policy Analysis

Outcome #14

1. Outcome Measures

Number of networks prepared to mitigate biological and abiotic disruptions.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	2

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
610	Domestic Policy Analysis

Outcome #15

1. Outcome Measures

Number of youth that improved knowledge of food systems.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	2929

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
704	Nutrition and Hunger in the Population

Outcome #16

1. Outcome Measures

Number of adults improved knowledge of food systems.

Not Reporting on this Outcome Measure

Outcome #17

1. Outcome Measures

Number of food councils and institutes created to promote practical food systems policies.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	16

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
610	Domestic Policy Analysis

Outcome #18

1. Outcome Measures

Number of research and extension advisory councils and boards.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	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
610	Domestic Policy Analysis

Outcome #19

1. Outcome Measures

Number of communities that retained farm lands due to educational interventions.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	9

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
131	Alternative Uses of Land

Outcome #20

1. Outcome Measures

Number of food security extension publications and presentations.

Not Reporting on this Outcome Measure

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Other (Change in personnel)

Brief Explanation

During FY 2014, our Agents continued to implemented the new curricular guide on Food Security. There were many educational activities developed, in addition to short courses, such as agricultural fairs conferences. Unlike, short courses, which are offered to small groups of individuals, conferences and fairs are attended by a larger group of people. Therefore, with less FTEs we were able to reach more persons with the purpose to create awareness about this important issue. On the other hand we had no new publications since our Food Security specialist, the person in charge of developing and coordinating publications is still the Secretary of Agriculture of Puerto Rico.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

No formal evaluation was conducted for this fiscal year.

Key Items of Evaluation

V(A). Planned Program (Summary)

Program # 10

1. Name of the Planned Program

Adult and Childhood Obesity

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
703	Nutrition Education and Behavior	50%			
704	Nutrition and Hunger in the Population	20%			
724	Healthy Lifestyle	30%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2014	Extension		Research	
	1862	1890	1862	1890
Plan	8.5	0.0	0.0	0.0
Actual Paid	10.4	0.0	0.0	0.0
Actual Volunteer	1.0	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
421763	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
207613	0	0	0
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

- Developed joint action at community level to promote and implement physical activity programs and nutrition education for adults, parents, caregivers and kids.
- Taught about the importance of healthy practices at work and breakfast, lunch, and snacks in schools and other institutions to comply with communication 2-2007-2008 that rules expenditure and consumption of food and beverages minimum nutritional value.
- Taught participants about portion size control, adequate meal patterns, supermarket tours, meal planning, shopping lists to ensure healthy food choices within a budget
- Demonstrated easy, healthy food recipes to encourage the consumption of fruit, vegetables and whole grain foods
- Encouraged the importance of gardening to increase physical activity and the consumption of fruit, vegetables and healthy foods
- Demonstrated the importance of reducing refined sugars and saturated fats to prevent obesity and the development of chronic diseases

2. Brief description of the target audience

Children/youth and their families, caregivers, and adults.

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	20085	6786	9370	1760

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	1	0	1

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of children and youth that completed non-formal nutrition and physical activity education courses.

Year	Actual
2014	4901

Output #2

Output Measure

- Number of adults, parents and caregivers that completed non-formal nutrition and physical activity education courses.

Year	Actual
2014	2422

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Number of children and youth that reported eating more healthy foods.
2	Number of adults/caregivers that reported eating more of healthy foods.
3	Number of adults, parents, caregivers, children, and youth that reported eating less of foods/food components which are commonly eaten in excess, by reducing enlarged portion sizes.
4	Number of adults, parents, caregivers, children and youth that reported increasing their physical activity.
5	Number of adults, parents, caregivers, children and youth that reported engaging daily in 60 minutes or more of physical activity.
6	Number of adults, parents, caregivers, children, and youth who learned about the importance of gardening to promote physical activity and improve nutrition.
7	Number of adults, parents, caregivers, children, and youth who increased the consumption of 5 or more fruit and vegetables per day.
8	Number of adults, parents, caregivers, children, and youth who ate breakfast.
9	Number of adults, parents, caregivers, children, and youth who made healthy food choices after learning to read the food labels.

Outcome #1

1. Outcome Measures

Number of children and youth that reported eating more healthy foods.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	2257

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Childhood obesity rates triplicated in the last decade in both genders (Pediatric Nutrition Surveillance System-PedNSS, 2008). In Puerto Rico, 30% of children and youth are considered obese; and more than 40% of children and youth are consuming "junk foods", sugared drinks, sweets (YBRFSS, 2009), and low consumption of fruits and vegetables. Efforts in nutrition education programs were implemented. Professionals were educated in the areas of portion control, healthy snacks, reading food labels and healthy choices,

What has been done

Lessons on the importance of fruits and vegetable were given to children and youth. Knowledge and change on behaviors were reinforced by activities related with recipe demonstration and hands-on recipe preparation using fruits and vegetables. Youth was impacted using the Curriculum "Moving to a Healthy Eating" that includes nutrition and physical activity education.

Results

The participants who took the course and reinforced knowledge with hands-on activities increased the intake of both fruits and vegetables by 40%.

A success story about a mother with two obese children participated on the program and one lost 10 pounds within two months following nutrition education on how to incorporate fruits and vegetables in their meals, through the instruction of healthy recipes.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle

Outcome #2

1. Outcome Measures

Number of adults/caregivers that reported eating more of healthy foods.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	1186

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Issues related with the consumption of unhealthy foods (sugared, salty and high fat foods). Results from the Health Information National Trends Survey, showed that the consumption of fruits and vegetable is low in Puerto Rico. Lack of knowledge and awareness on the health benefits on fruit and vegetable consumption respond to this issue.

What has been done

Nutrition education and activities related focused on the importance of consuming healthy foods for weight management and reduction of health risk factors and were given to adults and caregivers.

Results

There was a 49% increase in the selection of healthy foods in this group.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle

Outcome #3

1. Outcome Measures

Number of adults, parents, caregivers, children, and youth that reported eating less of foods/food components which are commonly eaten in excess, by reducing enlarged portion sizes.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	1809

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle

Outcome #4

1. Outcome Measures

Number of adults, parents, caregivers, children and youth that reported increasing their physical activity.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	3287

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The Physical activity recommendations from the 2008 Physical Activity for Americans were not met. Data reported on the YRBSS (2011) showed that 28% of Puerto Rican adolescents (grades 9th through 12th) did not eat fruit and 19.1% did not eat vegetables, however when asked about eating vegetables less than three times per day a higher percent, 88% reported this dietary pattern. In addition, 33% did not participate in at least 60 minutes of physical activity on any day.

What has been done

Lessons given using two curriculums, one that emphasizes physical activity and healthy eating for families (Taking Control of Healthy Eating), and the second emphasizing the importance of nutrition knowledge and physical activity through games in nutrition competitions (Moving to Healthy Eating) were given to parents, caregivers, children and youth.

Results

The addition of physical activities within the curriculum (Zumba lessons, dancing, power walking) and the nutrition and physical activity competitions increased physical activity in 60% of the participants.

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle

Outcome #5

1. Outcome Measures

Number of adults, parents, caregivers, children and youth that reported engaging daily in 60 minutes or more of physical activity.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	1316

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle

Outcome #6

1. Outcome Measures

Number of adults, parents, caregivers, children, and youth who learned about the importance of gardening to promote physical activity and improve nutrition.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	2937

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

A meta-analysis published in the Journal of the Academy of Nutrition and Dietetics (2009, OBrien et al.) demonstrated that garden-based nutrition intervention programs may have the potential to promote increased fruit and vegetable intake among youth and increased willingness to taste fruits and vegetables among younger children. The importance of gardening to promote the consumption of healthy foods and fiber, as well as a way to increase physical activity was needed in Puerto Rico.

What has been done

Nutrition education on the importance of gardening to obtain the healthy foods and nutrients needed for weight management for adults and growth and development of children was given. Posters and flyers were designed to reinforce the importance of the good nutrition through gardening activities. An exercise program encouraging resistance, flexibility and aerobic activities in the garden were given. This new program also included the preparation of healthy recipes using the foods grown in the community garden was very successful.

Results

A 46% of the participants learned about the benefits of gardening for better nutrition and physical activity and were consuming food from their garden.

4. Associated Knowledge Areas

KA Code	Knowledge Area
704	Nutrition and Hunger in the Population

Outcome #7

1. Outcome Measures

Number of adults, parents, caregivers, children, and youth who increased the consumption of 5 or more fruit and vegetables per day.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	1582

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
704	Nutrition and Hunger in the Population

Outcome #8

1. Outcome Measures

Number of adults, parents, caregivers, children, and youth who ate breakfast.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	1946

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
704	Nutrition and Hunger in the Population

Outcome #9

1. Outcome Measures

Number of adults, parents, caregivers, children, and youth who made healthy food choices after learning to read the food labels.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	3004

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
703	Nutrition Education and Behavior
724	Healthy Lifestyle

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Economy
- Competing Programmatic Challenges

Brief Explanation

1. Puerto Rico economic situation is facing a difficult time. Community participants are forced to find extra jobs and attendance to education programs has been reduced. There are limitations in the amount of education materials to be prepared due to reduced funds.
2. Many employees are retiring and the positions are vacant, and it is more difficult to

outreach community.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

We are developing an evaluation questionnaire that is expected to be validated on Fiscal Year 2015.

Key Items of Evaluation

VI. National Outcomes and Indicators

1. NIFA Selected Outcomes and Indicators

Childhood Obesity (Outcome 1, Indicator 1.c)	
2257	Number of children and youth who reported eating more of healthy foods.
Climate Change (Outcome 1, Indicator 4)	
0	Number of new crop varieties, animal breeds, and genotypes with climate adaptive traits.
Global Food Security and Hunger (Outcome 1, Indicator 4.a)	
0	Number of participants adopting best practices and technologies resulting in increased yield, reduced inputs, increased efficiency, increased economic return, and/or conservation of resources.
Global Food Security and Hunger (Outcome 2, Indicator 1)	
0	Number of new or improved innovations developed for food enterprises.
Food Safety (Outcome 1, Indicator 1)	
0	Number of viable technologies developed or modified for the detection and
Sustainable Energy (Outcome 3, Indicator 2)	
0	Number of farmers who adopted a dedicated bioenergy crop
Sustainable Energy (Outcome 3, Indicator 4)	
0	Tons of feedstocks delivered.