

V(A). Planned Program (Summary)

Program # 5

1. Name of the Planned Program

Global Food Security and Hunger - The New Farmer: Agriculture for the Next Generation

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	10%			
104	Protect Soil from Harmful Effects of Natural Elements	10%			
125	Agroforestry	10%			
205	Plant Management Systems	10%			
403	Waste Disposal, Recycling, and Reuse	20%			
601	Economics of Agricultural Production and Farm Management	20%			
608	Community Resource Planning and Development	10%			
806	Youth Development	10%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	1.5	0.0	0.0	0.0
Actual Paid Professional	1.5	0.0	0.0	0.0
Actual Volunteer	0.1	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
122628	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
50551	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
90677	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

This plan of work is driven by needs assessments of local and regional farmers and agricultural professionals. Core issues were identified at the 2007 WSARE subregional conference and further refined by annual needs assessments through advisory meetings and focus groups.

The WSARE and locally funded Professional Development Program (PDP) component of this POW develops curriculum, educational materials, conducts workshops, capacity building meetings and facilitates multi-agency needs assessments, project planning and grant writing to support outreach professionals in addressing local and regional needs. Guam PDP focuses on leveraging these professionals' outreach activities through collaborations. The agricultural professionals supported include: University of Guam and other regional land grants (CES, AES), Guam Community College (GCC) culinary program, SBDC, CLTC, Guam DoAG, FSA, NRCS, SWDCs and local agricultural consultants.

In 2013 a new focus audience was identified: the growing number of education and outreach professionals, not trained in agriculture, that are working to promoting gardening and other agricultural activities. These included Extension field staff in Consumer and Family Sciences and 4-H, also included were a large number of teachers in the public and private schools and workers in public health and community development. The PDP worked with partners to adapt key components of the New Farmer curriculum for community and backyard gardens in our tropical context, and coordinated curriculum development in support of food preservation and processing trainings. Faculty in the New Farmer POW partnered with the Children Healthy Living (CHL) program field agents to develop a 16 hour "Basics of Starting Your Own Garden" curriculum, New Farmer partners both faculty and agriculture professionals modeled delivery of four, four hour workshops covering the 8 topics. Seven CHL Extension Associates observed and then worked with the PDP coordinator to enhance existing materials into a standard curriculum for use in training outreach workers and teachers on how to garden. They then used this knowledge and materials to deliver their own workshops and demonstrations, initially under the PDP coordinators supervision. They in turn trained 4-H staff in use of these materials in October. Now they are continuing to conduct workshops in the community and for teachers on using these materials. Additionally the 4H staff set up on-campus garden demonstrations based on this curriculum.

Faculty in the New Farmer POW assume that one of the best ways to develop agricultural, food, and culinary professionals' outreach capacity is to engage them in curriculum development and then pilot trainings. In the process we also leverage our time and expertise. One of the areas that farmers and community members identified where trainings are needed is in value added processing and food preservation. The Guam PDP effort under this POW in cooperation with the [Food Safety - Tropical safe and wholesome food products POW](#) is coordinating a multi-agency/partner working group that is

developing the curriculum series for a Guam Food Preserver/ Value-added Processer program. This is being accomplished in a manner similar to how the "New Farmer" Curriculum materials that were developed in past years. Twelve agriculture, food and culinary professions from University of Guam, Guam Community College, Micronesian Chefs Association and the local community are participating in this effort. Two of the workshop materials were completed and piloted this year "Making Jams and Jellies" and "Making Quick Pickles". Significant progress has been made on other topics in this series.

One faculty, during this period, worked with the College of Micronesia Land Grant programs and the US Embassy in Pohnpei to conduct a rapid assessment of agriculture production and markets for each of the four states of FSM. This was to help in planning for a WSARE grant in the next year that focuses on week long workshops for agricultural professionals in each state to develop their capacity to conduct trainings that will help subsistence agro-forest farmers to transition to subsistence with cash crop/commercial production.

Gardening workshops were held on an almost monthly basis using this POWs standardized gardening curriculum . Additionally initial value added and food preservations workshops were piloted as part of this POWs effort to develop a shared food preservation curriculum in collaboration with Food Safety: Tropical Safe and Wholesome Food Products POW and partner agencies. The eventual goal is to develop localized curriculum required to initiate a Guam Master Food Preserver program.

For the subsistence/home/community garden portions of this program's workshops are addressing the information needs of the small (1/4 acre to 1 acre) island producers. Our outreach efforts address these educational needs through workshops and extension publications, in order to increase the substitution of local production for the current imported produce and home grown produce for purchased produce.

These efforts are all working towards the goal of promoting home and community grown food as alternatives to store bought food through home and community gardening programs, thus increasing local food diversity and self reliance. This program consistently partners with other local agencies and organizations when ever possible to leverage our outreach efforts.

2. Brief description of the target audience

The primary target audiences are the one thousand plus agricultural lease holders of the Chamorro Land Trust Commission (CLTC) agricultural lands programs, and the more than 100 existing full and part time commercial and subsistence agricultural producers on Guam, and the thousands of island residents interested in gardening and other agricultural activities. In addition, teachers and the island youth interested in entrepreneurial agricultural activities are also beneficiaries of this program.

The secondary target audience is the agricultural and food professional communities on Guam. This program is a collaborative effort to build the capacity and enhance the performance of the agricultural professionals in Guam Cooperative Extension, and partner agencies so these agricultural professionals can better identify issues and mobilize resources to assist the agriculture community on Guam. By targeting these communities and formally patnering with them in developing shared curriculum we leverage all of our limited professional resources.

A third potential audience are the agricultural professionals in the partner land grant programs, and their partners, throughout the American Affiliated Pacific.

A third target audience is Extension, education and island Department of agriculture professionals as participant trainers in a train the trainer distance education workshop series on the

curriculum materials. These participants will also serve as key contacts in future needs assessments so that the islands needs may be incorporated in our curriculum development efforts.

3. How was eXtension used?

Used as a reference source of information in developing new curriculum

V(E). Planned Program (Outputs)

1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	893	530	610	0

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

Patent Applications Submitted

Year: 2013

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2013	Extension	Research	Total
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of popular articles in newsletters, magazines and newspapers

Year	Actual
2013	4

Output #2

Output Measure

- Number of extension learning opportunities

Year	Actual
2013	24

Output #3

Output Measure

- Number of extension publications and presentations (fact sheets, white papers, web-based learning modules, etc.)

Year	Actual
2013	13

Output #4

Output Measure

- Number of research and extension advisory councils and boards.

Year	Actual
2013	7

Output #5

Output Measure

- Workshop curriculum developed and piloted with agricultural professionals

Year	Actual
2013	10

Output #6

Output Measure

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

Year	Actual
2013	452

Output #7

Output Measure

- Number of either: Memorandums of understanding, or cooperative agreements, or shared demonstrations initiated or continued.

Year	Actual
2013	3

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Of the adults participating in food system knowledge and skill enhancement programs or learning opportunities the number indicating improved knowledge of food systems.
2	Number of community action plans implemented as a result of science and community based assessment.
3	Number of organizations that leveraged/or increased their outreach efforts by participating in the New Farmer Programs.
4	Number of adults or organizations who participated in the programs learning opportunities who adopting recommended or demonstrated practices.
5	Number of cooperating agency and organization personnel adopting and utilizing curriculum materials developed under this POW (both Guam and Distance Education).

Outcome #1

1. Outcome Measures

Of the adults participating in food system knowledge and skill enhancement programs or learning opportunities the number indicating improved knowledge of food systems.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	320

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

This is important as it is a measure of the effectiveness our outreach activities. When evaluations are conducted after workshops we generally find most filling out the evaluations indicate knowledge gain. This period evaluations were not conducted after the workshop.

What has been done

We have standardized an evaluation form and have begun to give out a raffle ticket to each participant that fills out the evaluation. Raffle prizes are generally a plant (fruit, vegetable or herb) from our nursery for the gardening demonstrations. This improves completed evaluation rates.

Results

Increased evaluation completion rates

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
104	Protect Soil from Harmful Effects of Natural Elements
125	Agroforestry
205	Plant Management Systems
403	Waste Disposal, Recycling, and Reuse
601	Economics of Agricultural Production and Farm Management

Outcome #2

1. Outcome Measures

Number of community action plans implemented as a result of science and community based assessment.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	2

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

This POW strives to partner with other groups and agencies in our outreach efforts. Action plans adopted are a measure of success of our assistance.

What has been done

We drafted the Noncommunicable Disease Consortium's gardening and increasing fruit and vegetable consumption action plan. This was adopted by the larger group. This program also drafted the Farmers Coop strategic plan.

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
104	Protect Soil from Harmful Effects of Natural Elements
125	Agroforestry
205	Plant Management Systems
608	Community Resource Planning and Development
806	Youth Development

Outcome #3

1. Outcome Measures

Number of organizations that leveraged/or increased their outreach efforts by participating in the New Farmer Programs.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	7

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

A focus of the POW is to develop shared curriculum for program partners to share. This leverage all of our efforts

What has been done

We ave developed and disseminated curriculum for gardening and food preservation and value added processing.

Results

Seven agencies, organizations or programs are currently using these curriculum in their outreach efforts.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
104	Protect Soil from Harmful Effects of Natural Elements
125	Agroforestry
205	Plant Management Systems
403	Waste Disposal, Recycling, and Reuse
601	Economics of Agricultural Production and Farm Management
608	Community Resource Planning and Development
806	Youth Development

Outcome #4

1. Outcome Measures

Number of adults or organizations who participated in the programs learning opportunities who adopting recommended or demonstrated practices.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	46

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Adoption shows but a knowledge and attitude change as a result of the education programs.

What has been done

Evaluation forms completed after the learning event indicate if there will be a change in behavior or adoption.

Results

Many participants indicated that they will do something directly inspired by the workshops.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
104	Protect Soil from Harmful Effects of Natural Elements
125	Agroforestry
205	Plant Management Systems
403	Waste Disposal, Recycling, and Reuse
601	Economics of Agricultural Production and Farm Management

Outcome #5

1. Outcome Measures

Number of cooperating agency and organization personnel adopting and utilizing curriculum materials developed under this POW (both Guam and Distance Education).

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	18

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Key effort is to collaboratively develop curriculum that can be used by agriculture and food professionals. A measure of success is how many professionals are using this curriculum.

What has been done

We have monitored workshops conducted by the program partners and the materials they use to identify the use of these curriculum.

Results

18 agriculture, food and youth professionals have used curriculum materials developed under the POW in outreach workshops or trainings on Guam in the past year.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
104	Protect Soil from Harmful Effects of Natural Elements
125	Agroforestry
205	Plant Management Systems
403	Waste Disposal, Recycling, and Reuse
601	Economics of Agricultural Production and Farm Management
608	Community Resource Planning and Development
806	Youth Development

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Appropriations changes
- Public Policy changes
- Other (change in gov't. admin.)

Brief Explanation

No external factors have negatively impacted this POW in the past year.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Want more workshops.
Like Saturday morning workshops.
Want grafting workshops.
Like multiple speakers.
Enjoy workshops with hands on activities.

Key Items of Evaluation