

V(A). Planned Program (Summary)

Program # 1

1. Name of the Planned Program

Global Food Security and Hunger: Small Livestock and Beef Production

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
301	Reproductive Performance of Animals	20%			
302	Nutrient Utilization in Animals	15%			
307	Animal Management Systems	30%			
311	Animal Diseases	10%			
312	External Parasites and Pests of Animals	10%			
315	Animal Welfare/Well-Being and Protection	10%			
603	Market Economics	5%			
	Total	100%			

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	2.5	0.0	0.0	0.0
Actual Paid Professional	2.5	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
80000	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
80000	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

- A livestock brand registry was maintained to assist farmers and livestock agencies in identifying lost or stray livestock.
- A "Buy Local, Eat Fresh" program continued to promote the purchase and consumption of locally produced animal products.
- A parasite monitoring program continued for all livestock farms to document parasite populations and concentrations, with data being used in tick control programs.
- Test sites were set up and monitored to enhance forage evaluation in pasture and drought conditions.
- A program was initiated to demonstrate to producers the health and financial advantages of proper and adequate housing for livestock.
- Nutrition evaluation methods were demonstrated to producers so that they can determine the effects of reproduction and performance.

2. Brief description of the target audience

- Virgin Islands Livestock Producers
- Virgin Islands Consumers
- Virgin Islands Youth

3. How was eXtension used?

Obtaining resources and materials to provide information to farmers and producers.

V(E). Planned Program (Outputs)

1. Standard output measures

2012	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	450	3000	700	1000

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

Patent Applications Submitted

Year: 2012

Actual: 0

Patents listed

N/A

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2012	Extension	Research	Total
Actual	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Workshops/demonstrations would be conducted on management, nutrition, housing, and identification of livestock

Year	Actual
2012	10

Output #2

Output Measure

- Pasture testing and demonstration sites would be set up for forage evaluation

Year	Actual
2012	2

Output #3

Output Measure

- Farms would be visited for general evaluation of management techniques and counseling

Year	Actual
2012	45

Output #4

Output Measure

- Farms would be visited for parasite monitoring and evaluation

Year	Actual
2012	20

Output #5

Output Measure

- Farms would be visited to weigh animals to monitor performance

Year	Actual
2012	8

Output #6

Output Measure

- Animal production would be monitored

Year	Actual
2012	40

Output #7

Output Measure

- Continue to implement a 'Buy Local' campaign with local farmers cooperative for use by producers in the community

Year	Actual
2012	1

Output #8

Output Measure

- Provide training to farmers in identification methods

Year	Actual
2012	2

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Establish and/or monitor five (5) sites annually to demonstrate the use of drought-resistant and nutritional forages for pastured livestock
2	Decrease animal losses due to parasites and poor nutrition by 5%
3	Increase the sales and consumption of locally produced livestock products such as meat and eggs by 5%
4	Increase the number of livestock herds/flocks using complete identification and recordkeeping practices by 10%
5	Increase the number of pig farmers that are raising their livestock in recommended facilities by 5%

Outcome #1

1. Outcome Measures

Establish and/or monitor five (5) sites annually to demonstrate the use of drought-resistant and nutritional forages for pastured livestock

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	7

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Livestock Producers- Through pasture improvement, farmers are able to realize greater production of higher quality livestock. This results in increased sales to the consumer as well as decreased actual loss of stock and decreased health related costs

Virgin Islands Consumers- Consumers are able to purchase larger quantities of better quality meats to feed their families

What has been done

Farms have been visited and counseling given as to the best approach to improve the pastures, making sure to tailor each approach to fit the needs and intents of the farmer. Pastures already in the improvement phase have been monitored for continued progress and improvement.

Results

Of the farmers that have initiated improvement practices in the past, one has had excellent results resulting in superb pastures for his livestock. Two have had satisfactory results and are continuing in their efforts to improve. Two others have had poor results due to improper varieties of grasses used and poor grazing management. Two farms have initiated improvement efforts, with one of those approximately 2/3 of the way to completion and the other just starting the process.

4. Associated Knowledge Areas

KA Code	Knowledge Area
302	Nutrient Utilization in Animals
312	External Parasites and Pests of Animals
315	Animal Welfare/Well-Being and Protection

Outcome #2

1. Outcome Measures

Decrease animal losses due to parasites and poor nutrition by 5%

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	5

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Virgin Island Farmers- Parasites in livestock and poor nutrition cause the animals to grow poorly. Animals are slowed in their development, not growing as fast or as large. This results in more cost to the farmer for feed, medication for the resulting health issues and ultimately less sales to the consumer.

Retailers- livestock with high parasite loads cannot be marketed because of the poor quality of the meat produced. Therefore, retailers are forced to modify their inventory to meet the needs of their consumers, often with short notice. Purchased livestock may turn out to be non-marketable size and, therefore, not as palatable to the consumer.

Consumers- Consumers prefer locally produced products but demand quality in the meat that they purchase. If the desired product is not available, they are forced to buy elsewhere.

Health Care Professionals- Medications used in worming livestock can be transferred through the consumption of animal products to consumers. Care must be taken in the administration of these products to ensure that they are clear of the system before the animal enters into the food chain. Less use of these products decrease this chance.

What has been done

Farmers have been trained in detection methods for internal parasites so that they treat only the animals that need it. This lessens the chances of the medication getting into the food system as well as the chances of the parasites becoming immune to the treatment. This is a large problem throughout the world and farmers are having to resort to newer and stranger products to solve the parasite issue. Farmers have also been trained in proper pasture management techniques to facilitate proper rotational grazing of the pastures. Through proper rotation, parasite life cycles can be interrupted, resulting in less infection of the animals and less required treatment.

Results

More farmers are practicing rotational grazing. Several farmers are adding new grasses to their pastures to improve the nutritional content of the grazing. Farmers are treating animals less for parasites, but getting better results because they are only treating the ones that need it.

4. Associated Knowledge Areas

KA Code	Knowledge Area
302	Nutrient Utilization in Animals
307	Animal Management Systems
312	External Parasites and Pests of Animals
315	Animal Welfare/Well-Being and Protection

Outcome #3

1. Outcome Measures

Increase the sales and consumption of locally produced livestock products such as meat and eggs by 5%

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	5

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Producers- When sales of products increase, farmers' incomes increase.

Retailers- Retailers are able to offer more selection of locally produced products to meet the increased demand for them.

Consumers- Consumers want fresh, locally produced products and are willing to pay higher prices to obtain them. They feel that knowing who and how their food is produced is important.

What has been done

A local campaign has been in effect to increase awareness of the availability, quality and nutritional benefits of locally produced products.

Results

The success of the "Buy Local" campaign is evidenced in the fact that local markets are now carrying eggs and meats that are produced locally. It is so successful that demand often exceeds supply of these items. As a result, there have been 2 additional egg producers that have started production. There are also plans by several other individuals to start other livestock enterprises (3 eggs, 1 broiler chicken, 1 goat, 1 swine)

4. Associated Knowledge Areas

KA Code	Knowledge Area
603	Market Economics

Outcome #4

1. Outcome Measures

Increase the number of livestock herds/flocks using complete identification and recordkeeping practices by 10%

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	5

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Farmers- Producers can keep more effective records when animals are identified. Through these records, they can make better decisions, resulting in a more successful operation.

Animal Health Personnel- Animals that are properly identified can be monitored and traced in the event of a disaster or disease outbreak.

Government Officials- Identification allows officials to keep track of livestock that have escaped from their farms, strayed or been stolen. It allows them to verify ownership.

Community- In the event of an accident, involved livestock can be traced to the owners.

What has been done

Many farmers now understand the importance of identification, however, with the depressed economy in the Virgin Islands, many of them have been forced to cut expenditures. Unfortunately

identification supplies are one of the casualties. The Department of Agriculture has helped to mitigate these circumstances slightly by offering tagging to some farmers, free of charge. Several farmers have availed themselves of this service.

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
307	Animal Management Systems

Outcome #5

1. Outcome Measures

Increase the number of pig farmers that are raising their livestock in recommended facilities by 5%

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	15

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Farmers- Swine raised in recommended facilities are healthier, cleaner and grow faster. This results in a faster "turnaround" time for the farmer and a quicker return on his investment.

Healthier pigs also need less inputs of medications, and wormers, since they are affected less by these maladies.

Consumers- Meat raised in recommended facilities are of a higher quality since the pigs don't have the problems of worms and filth. Consumers are more likely to buy meat from these farms.

Health Care Professionals- Meat that comes from swine raised in recommended facilities are not infested with organisms that can adversely affect humans and cause illness.

What has been done

Farm visits have been made. Counseling and advice have been given to farmers to assist them in the construction/improvement of their swine facilities.

Results

Despite the economic situation in the Virgin Islands, there are two (2) swine farmers that are currently upgrading their existing facilities. A third individual is in the planning stage for constructing and opening a new swine farm at the site of one of the old dairies.

4. Associated Knowledge Areas

KA Code	Knowledge Area
307	Animal Management Systems
315	Animal Welfare/Well-Being and Protection

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities

Brief Explanation

Pasture improvement was adversely affected by the extended drought that the Virgin Islands experienced this year. Grass was extremely slow to germinate and grow due to the lack of water. Then, when the rains came, there was flooding conditions. Equipment used in the refurbishment could not gain access to the lands due to saturation.

The slowed economy in the Virgin Islands has affected all of the farmers by limiting their income. They have been forced to "tighten their belts" and cut many expenditures in order to get by. Many of the farm expenses have fallen victim to this. When forced to choose between the farm and everyday expenses like groceries and electricity, the farm gets shorted.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Farmers that participated in the training sessions and workshops demonstrated a significant increase in knowledge on the subjects covered. In followup visits to their farms, it was noted that many were implementing the recommended practices that were taught in the workshops. Several individuals have expressed a desire to, are in the process of or have actually opened new livestock enterprises.

Key Items of Evaluation

Knowledge and implementation of proper management techniques

Amount of availability and sales of locally produced products