

V(A). Planned Program (Summary)

Program # 5

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
502	New and Improved Food Products	0%		17%	
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources	90%		29%	
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins	10%		43%	
723	Hazards to Human Health and Safety	0%		11%	
	Total	100%		100%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2014	Extension		Research	
	1862	1890	1862	1890
Plan	3.0	0.0	3.0	0.0
Actual Paid	0.8	0.0	4.9	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
47482	0	127470	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
47482	0	127470	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
86561	0	986815	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Produce food safety has emerged as a critical agricultural issue and often presents a significant financial threat to fruits and vegetables producers. Targeting horticultural growers' project activities focused on preparing growers for Food Safety Modernization Act implementation, reducing production, legal and price risks through live workshops, health, hygiene and sanitation training materials, and on-farm visits with extension personnel.

LSU AgCenter food safety efforts include group workshops, classes, and certification programs, as well as individual contacts with clients to answer specific questions and concerns regarding food safety. A variety of educational materials and resources are used to address food safety-related issues. Research focuses on identifying ways to minimize food safety threats related to Louisiana-produced food products.

2. Brief description of the target audience

Growers, processors, consumers, commercial seafood processors, children and food handlers including restaurateurs and food vendors

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	31	813	39	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	17	18

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of individuals certified through food safety programs

Year	Actual
2014	100

Output #2

Output Measure

- Number of Web page views

Year	Actual
2014	11162

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Increased awareness, knowledge and/or skills regarding safe food handling and preparation by both commercial and non-commercial entities.
2	Identify ways to minimize food safety threats related to Louisiana-produced food products through research.
3	Increase food safety awareness and market opportunities among Louisiana growers.

Outcome #1

1. Outcome Measures

Increased awareness, knowledge and/or skills regarding safe food handling and preparation by both commercial and non-commercial entities.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Consumer food handling practices and changes in food production, processing and distribution have increased the scope of foodborne illness outbreaks resulting in national and multi-national occurrences. Food safety misinformation may result in illness or adverse financial consequences. Some commercial processors and food handlers, such as meat and poultry, seafood and canning are required to have certified food safety training. For commercial clients, failure to achieve food safety standards can result in the destruction of product or the shutdown of the facility, both of which are very costly.

What has been done

Three hundred twenty-five extension activities including food safety information regarding thawing and storing foods correctly reached over 15,000 individuals through health fairs, Family Nutrition Nights, and Smart Choices classes.

Additionally, LSU AgCenter faculty conducted 4 nationally accredited HACCP courses (2 seafood, 2 meat and poultry) and 4 Better Process Control (BPCS) courses for processors and assisted FDA in conducting a seafood course for their inspectors. Sixty four individuals participated in these food safety education efforts. Approximately 120 processors were assisted with HACCP plans and with regulatory problems. Faculty also fielded food related safety questions from individuals, some of whom were interested in starting a food business.

Results

In a statewide study of adult participants in the EFNEP program, 57% (850 of 1500) of participants showed improvement in one or more food safety practice (i.e. thawing and storing

foods correctly).

Twenty two percent (328 of 1500) of participants showed improvement in both food safety practices (i.e. thawing and storing foods correctly). Among 12839 children and youth participants 46% use safe food handling practices more often or gain knowledge.

4. Associated Knowledge Areas

KA Code	Knowledge Area
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins
723	Hazards to Human Health and Safety

Outcome #2

1. Outcome Measures

Identify ways to minimize food safety threats related to Louisiana-produced food products through research.

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

Increase food safety awareness and market opportunities among Louisiana growers.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Fresh produce is one of the leading causes of foodborne illnesses (46%) in the United States (US) and presents a significant financial threat to producers. With the recent enactment of the Food Safety Modernization Act (FSMA), Food and Drug Administration (FDA) will have a legislative mandate to require comprehensive, science-based preventive controls across the food supply.

There are over 1500 fruit producers, over 2000 pecan producers, and 3300 vegetable producers in the state of Louisiana. The value of the 2013 fruit, pecan, and vegetable crops was estimated at over 90 million dollars, with sweet potatoes adding an additional 48 million dollars. With many producers' businesses at stake, the immediate need for educational materials and training assistance is greater now than ever. Current on-farm food safety recommendations vary, and producers struggle to discern which are appropriate for their operation, leaving them overwhelmed when initiating food safety programs.

What has been done

Food safety programs in 2014 were prioritized on two main areas: educating producers about Good Agricultural Practices (GAPs) and FSMA requirements, and providing technical assistance in the understanding and implementation of farm food safety risks. Several training programs were conducted in 2014 around the state promoting producer knowledge of food safety practices with a total participation of more than 500 growers and extension agents.

Results

Growers were provided access to GAPs educational materials, appropriate tools for conducting on-farm food safety risk assessments, and trainings to understand and comply with the proposed produce safety regulations set by FSMA.

About 70% attendees of the FSMA workshop indicated that they substantially increased their knowledge on produce safety rule and 76% indicated their understanding regarding the importance of record keeping increased to a high level. Eighty-nine percent indicated they will improve their food safety practices, 72% indicated considering adoption of enhanced preventive control activities and 100% considered starting record keeping of their farm activities. A total of 80% of the growers indicated that they will share the information to other producers and farm workers and 60% were considering implementation of GAPs in their farm.

4. Associated Knowledge Areas

KA Code	Knowledge Area
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources
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723	Hazards to Human Health and Safety

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 Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

{No Data Entered}

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Food Safety Practices of EFNEP adult participants improved as indicated by the following:

- 32% (475 of 1482) more often followed the recommended practices of not allowing meat and dairy foods to sit out for more than two hours. Furthermore 35% (514 of 1482) ALWAYS follow the recommended practice.
- 47% (703 of 1500) more often followed the recommended practices of not thawing foods at room temperature. Furthermore 9% (132 of 1500) ALWAYS follow the recommended practice
- 57% (850 of 1500) of participants showed improvement in one or more food safety practice (i.e. thawing and storing foods correctly).
- 22% (328 of 1500) of participants showed improvement in both food safety practices (i.e. thawing and storing foods correctly).

EFNEP Youth 2014:

K-2nd grade:

- 46% (2447 of 5317) improved in their responses to: Circle washing hands

Improvement by Cluster of Behavior - 3rd - 5th Grade:

- 22% (1231 of 5475) improved in their responses to: Pizza out of the refrigerator overnight?
- 17% (929 of 5442) improved in their responses to: Chicken/Rice leftovers in the refrigerator?
- 20% (1072 of 5480) improved in their responses to: Wash hands before food prep?

Improvement by Cluster of Behavior - 6th - 8th Grade:

- 29% (441 of 1544) improved in their responses to: Washed my hands before eating?
- 33% (514 of 1541) improved in their responses to: Wash fruit and vegetables before

eating?

- 43% (665 of 1530) improved in their responses to: Foods back in the refrigerator within 2 hours?

Improvement by Cluster of Behavior - 9th - 12th Grade:

- 27% (125 of 468) improved in their responses to: Washed my hands before eating?
- 28% (132 of 467) improved in their responses to: Wash fruits and vegetables before eating?
- 38% (176 of 464) improved in their responses to: Foods back in the refrigerator within 2 hours?
- 26% (119 of 461) improved in their responses to: Check the expiration date

Overall:

- **46% (5874 of 12839) Children and youth use safe food handling practices more often or gain knowledge.**

Key Items of Evaluation