

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
504	Home and Commercial Food Service	50%		50%	
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins	50%		50%	
	Total	100%		100%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	1.8	0.0	6.0	0.0
Actual Paid Professional	1.9	0.0	4.6	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
33480	0	11490	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
33480	0	11490	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
178531	0	528905	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Investigate the biology of pathogenic organisms; implement programs for children and adults based on Fight BAC, Thermy, Produce Safety and BAC Down campaigns; USDA food preservation rules; and implement food safety programs for food service and processors (ServSafe, TAPS, HACCP).

2. Brief description of the target audience

- Children in school and youth program settings
- Teen food handlers in high school and community
- Adults in home settings
- Volunteer food handlers in community settings
- Professionals in foodservice and food processing environments

3. How was eXtension used?

eXtension was not used in this program.

V(E). Planned Program (Outputs)

1. Standard output measures

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	1330	513000	4270	32000

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	1	4	5

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- {No Data Entered}

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Number of teens reporting changes in food handling practices to reduce risk of foodborne illness outbreaks
2	Number of foodservice and food industry participants in ServSafe, HACCP or other food sanitation courses passing the examination and becoming certified.
3	Number of adult participants in consumer food safety classes reporting intent to change one or more food handling behaviors.

Outcome #1

1. Outcome Measures

Number of teens reporting changes in food handling practices to reduce risk of foodborne illness outbreaks

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	800

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

"Teens Serving Food Safely" is a statewide NDSU Extension Service food safety education effort designed to improve young food handlers' food safety knowledge and skills and decrease the risk of foodborne illness outbreaks associated with food service establishments. According to a 2002 U.S. Department of Labor report, 22% of employed 15- to 17-year olds work in eating and drinking establishments. According to the National Restaurant Association pocket fact book in 2004, one-third of all employed 15 to 17 year olds work in eating and drinking establishments.

What has been done

The "Teens" curriculum consists of five lessons based on the Fight BAC and Themy national food safety campaign concepts, with pre/post and follow-up evaluation procedures. Youth benefit from the curriculum's experiential learning model, obtaining information and tools to share with their families. About 800 students participated in the multi-session "Teens" program in the last year.

Results

Since 2003, 8,694 North Dakota teens have been trained and received completion certificates based on the "Teens Serving Food Safely" curriculum. According to the past year's results, on average, knowledge scores increased from 54% on the pre-test to 87% on the post-test. About 39% of participants had been involved in the preparation of food for the public, and 74% prepare food for themselves or others every week. On the one-month follow up survey, 68% were more careful about cleaning and sanitizing, 43% had shared their knowledge about food safety with others, 77% reported washing their hands more often when preparing food and 40% have applied their knowledge when serving food for the public.

4. Associated Knowledge Areas

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

Outcome #2

1. Outcome Measures

Number of foodservice and food industry participants in ServSafe, HACCP or other food sanitation courses passing the examination and becoming certified.

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

Number of adult participants in consumer food safety classes reporting intent to change one or more food handling behaviors.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2013	1294

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Consumer food handling remains an issue of concern, and evaluations focused on outdoor grilling, a popular cooking method, and food preservation. Grilling is one of the healthier methods of preparing food; however, food safety issues, including quality issues and lack of thermometer use, have been cited as issues. Interest in food preservation has increased with rising food prices and renewed interests in local foods and gardening. Many younger adults lack experience with food preservation techniques and are seeking training so they preserve foods safely.

What has been done

A Barbeque Boot Camp program was initiated that brought together Extension, meat science, and food safety specialists and faculty from the Department of Animal Science, along with Extension agriculture and family and consumer science agents from across North Dakota. The boot camps were held in three locations in North Dakota and reached 227 participants. About 150 people attended food preservation classes. Educational programs in grilling, food safety and food preservation took place in classroom-type settings. Participants received a food thermometer and educational materials to use at home. Food preservation classes were held in five counties.

Results

The BBQ Boot Camp has reached about 4,200 people during the past five years. Post-test scores showed that participants significantly increased their knowledge and indicated they would change their behavior. Follow-up surveys have shown that 83% used the thermometer they received and 58% had changed their meat purchasing decisions after attending the program. According to evaluations with attendees of hands-on and discussion-based food preservation classes, about 71% planned to make jams/jellies, 33% planned to can fruit, 51% planned to freeze fruit, 58% planned to can salsa and pickles, 34% planned to can vegetables and 21% planned to prepare dehydrated fruit.

4. Associated Knowledge Areas

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

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Appropriations changes
- Government Regulations
- Competing Public priorities

Brief Explanation

As a result of competing programming and a large number of new staff, we saw declines in the number of Barbecue Boot Camps and food preservation classes. We plan to offer a food preservation training workshop and new materials in the coming year to promote the availability of these resources and programming. More people are accessing their information online, so we have increased our use of Facebook and other media to reach our audiences.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Since 2003, 8,694 North Dakota teens have been trained and received completion certificates based on the "Teens Serving Food Safely" curriculum. According to the past year's results, on average, knowledge scores increased from 54% on the pre-test to 87% on the post-test. About 39% of participants had been involved in the preparation of food for the public, and 74% prepare food for themselves or others every week. On the one-month follow up survey, 68% were more careful about cleaning and sanitizing, 43% had shared their knowledge about food safety with others, 77% reported washing their hands more

often when preparing food and 40% have applied their knowledge when serving food for the public.

Key Items of Evaluation

Teenage food handlers continue to score very low (54%) on the initial examination. This age group, who commonly work in food service operations, are a group that needs ongoing training to prevent foodborne illness outbreaks in commercial settings.