

V(A). Planned Program (Summary)

Program # 1

1. Name of the Planned Program

Food Safety

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources	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 professional FTE/SYs expended this Program

Year: 2010	Extension		Research	
	1862	1890	1862	1890
Plan	1.8	0.0	0.0	0.0
Actual	2.0	0.0	1.0	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
121094	0	42220	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
124974	0	71746	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

- Continue to implement HACCP training for RI school food service operations
- Provide HACCP and sanitation education programs to a variety of food processors
- Host an annual Food Safety Conference for public and private stakeholders
- Maintain a Good Agricultural Practices (GAP) Program for commercial growers of fruit and vegetables
 - Maintain RI Food Safety Manager courses
 - Develop internet-based training on Food Safety issues
 - Develop Food Safety Curriculum materials for Special Needs students (ages 16-21)
 - Further development of time-temperature barcodes to continuously monitor the temperature of food products.

2. Brief description of the target audience

Food industry and food service workers and managers, food processors, consumers, agricultural producers, home gardeners, school administrators, school-aged children and their caregivers, special needs students, teachers, community volunteers, Master Gardener volunteers.

V(E). Planned Program (Outputs)

1. Standard output measures

2010	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	350	1000	0	1500
Actual	906	76450	20	30

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

Patent Applications Submitted

Year: 2010
 Plan: 0
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2010	Extension	Research	Total
Plan	0	1	
Actual	0	1	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Peer Reviewed Publications

Year	Target	Actual
2010	1	4

Output #2

Output Measure

- Abstracts

Year	Target	Actual
2010	1	8

Output #3

Output Measure

- Professional Training Sessions (educators, farmers, food industry and food service personnel)

Year	Target	Actual
2010	15	16

Output #4

Output Measure

- Volunteer Training

Year	Target	Actual
2010	5	5

Output #5

Output Measure

- Conferences Hosted

Year	Target	Actual
2010	1	2

Output #6

Output Measure

- School Based Training Sessions (teachers and children)

Year	Target	Actual
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2010 2 0

Output #7

Output Measure

- Website Development and Refinement

Year	Target	Actual
2010	1	1

Output #8

Output Measure

- Student training

Year	Target	Actual
2010	1	6

Output #9

Output Measure

- General Consumer

Year	Target	Actual
2010	{No Data Entered}	5

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Commercial growers of fruit and vegetables, food industry producers and school personnel will participate in appropriately directed food safety training (# of people trained)
2	Formulate new approaches to food safety education for consumers, schools and the food industry in Rhode Island
3	Develop, implement and evaluate new health and food safety training and resource materials for targeted audiences such as consumers, educators, food industry personnel and health care providers (# of new programs).
4	Develop pigments for time-temperature indicator barcodes for food safety.

Outcome #1

1. Outcome Measures

Commercial growers of fruit and vegetables, food industry producers and school personnel will participate in appropriately directed food safety training (# of people trained)

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	140	385

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

There is need for food safety information throughout the diverse RI community of educators, consumers, foodservice workers, food industry personnel and processors and commercial fruit and vegetable growers. Federal and state regulations mandate specific training that allows the RI food industry to be in compliance. In addition, participation in voluntary food safety programs is rapidly becoming an expectation for business and non-profits.

What has been done

The URI Food Safety Education Program has offered a variety of food safety training programs to numerous target audiences to address state and federal mandates and volunteer training needs.

Results

Commercial growers, food industry employees and school food service personnel have secured new knowledge and have developed effective strategies based on URI Extension training to ensure consumer safety and prevention of food-based and borne illnesses.

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

Outcome #2

1. Outcome Measures

Formulate new approaches to food safety education for consumers, schools and the food industry in Rhode Island

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

Develop, implement and evaluate new health and food safety training and resource materials for targeted audiences such as consumers, educators, food industry personnel and health care providers (# of new programs).

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	1	3

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Health and food safety issues concerning a variety of foods keep evolving and information to target audiences require continuous revision and updating. Therefore new training and resource

materials need evaluation, development and implementation.

What has been done

URI Food Safety Program personnel, in cooperation with other food safety and health outreach experts throughout the US, have evaluated and developed/revised training and resource materials related to seafood safety, benefits/risks of seafood and food safety plan development at Residential Child Care Institutions (RCCIs).

Results

Train the trainer programs for seafood HACCP trainers were completed using the extensively revised curriculum materials. Resources for health care providers regarding risk/benefit of seafood were close to completion including brochures, pamphlets and website. In addition, there was further dissemination of survey results regarding health provider knowledge of seafood safety and seafood benefits/risks. Finally, the MA/RI RCCI staff pilot training was completed and evaluated and two additional states were awarded funds to conduct a final pilot testing of the curriculum training materials.

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

Outcome #4

1. Outcome Measures

Develop pigments for time-temperature indicator barcodes for food safety.

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	1	1

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

We have been working with a California based company, Sira Technologoes, on the development of pigments for a time-temperature indicator bar code system. The system would allow refrigerated food products to me monitored for proper storage temperature throughout the food chain.

What has been done

We have continued the development of thermochemic pigments for use in time temperature indicator bar code system.

Results

We investigated o new sidechain structures. These efforts focused on using different sidechains from those utilized in our initial investigations. The new sidechains are similar on structure to those previously investigated, but were utilized in mixed ratios. The different sidechain lengths lead to improvements in the tunability of the IUA transition temperature and are better for large scale production of the pigments.

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

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)
- Other (No funding)

Brief Explanation

{No Data Entered}

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Retrospective (post program)
- Before-After (before and after program)
- During (during program)

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}