

V(A). Planned Program (Summary)

Program # 11

1. Name of the Planned Program

Food and Non-Food Quality, Nutrition, Engineering and Processing

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
401	Structures, Facilities, and General Purpose Farm Supplies				
402	Engineering Systems and Equipment				
403	Waste Disposal, Recycling, and Reuse				
404	Instrumentation and Control Systems				
501	New and Improved Food Processing Technologies				
502	New and Improved Food Products				
503	Quality Maintenance in Storing and Marketing Food Products				
511	New and Improved Non-Food Products and Processes				
512	Quality Maintenance in Storing and Marketing Non-Food Products				
	Total				

V(C). Planned Program (Inputs)

1. Actual amount of professional FTE/SYs expended this Program

Year: 2010	Extension		Research	
	1862	1890	1862	1890
Plan	0.0	0.0	9.0	0.0
Actual	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
0	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	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

2. Brief description of the target audience

V(E). Planned Program (Outputs)

1. Standard output measures

2010	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	30	50	0	0
Actual	0	0	0	0

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

Patent Applications Submitted

Year: 2010
 Plan: 7
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2010	Extension	Research	Total
Plan	0	30	

Actual	0	0	0
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V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of research projects focusing on food quality, nutrition, engineering and processing.
Not reporting on this Output for this Annual Report

Output #2

Output Measure

- Number of adults trained on new and improved non-food and bioeconomy related products and processes.
Not reporting on this Output for this Annual Report

Output #3

Output Measure

- Number of native american adults trained in energy crops and renewable resources.
Not reporting on this Output for this Annual Report

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Number of research programs to develop the processes and technologies to manufacture functional foods.
2	Number of research programs to develop new biosensors and DNA chips that can rapidly and accurately detect a broad spectrum of harmful organisms in food and water, such as E. coli, Salmonella, Listeria, Campylobacter, Cryptosporidium and
3	Number of adults with new and improved knowledge on non-food and bioeconomy related products and processes.
4	Number of native american adults with improved knowledge on energy crops and renewable resrouces.
5	Number of research programs to identify breeding and genetic improvement related to food quality, nutrition and processing.
6	Number of research programs to develop packaging systems to enhance food quality and shelf life.
7	Number of research programs to connect Michigan industries with research, education and entrepreneurial activity needed in the basic sciences, engineering and plant science and agriculture to provide the state with a foundation for vigorous development of a new biobased economic sector.

Outcome #1

1. Outcome Measures

Number of research programs to develop the processes and technologies to manufacture functional foods.

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

Number of research programs to develop new biosensors and DNA chips that can rapidly and accurately detect a broad spectrum of harmful organisms in food and water, such as E. coli, Salmonella, Listeria, Campylobacter, Cryptosporidium and

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

Number of adults with new and improved knowledge on non-food and bioeconomy related products and processes.

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

Number of native american adults with improved knowledge on energy crops and renewable resrouces.

Not Reporting on this Outcome Measure

Outcome #5

1. Outcome Measures

Number of research programs to identify breeding and genetic improvement related to food quality, nutrition and processing.

Not Reporting on this Outcome Measure

Outcome #6

1. Outcome Measures

Number of research programs to develop packaging systems to enhance food quality and shelf life.

Not Reporting on this Outcome Measure

Outcome #7

1. Outcome Measures

Number of research programs to connect Michigan industries with research, education and entrepreneurial activity needed in the basic sciences, engineering and plant science and agriculture to provide the state with a foundation for vigorous development of a new biobased economic sector.

Not Reporting on this Outcome Measure

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.)

Brief Explanation

All of the state defined inputs and outcomes that were in this planned program are now in the new Food Safety and Sustainable Energy planned programs.

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

1. Evaluation Studies Planned

- After Only (post program)
- Retrospective (post program)
- Before-After (before and after program)
- During (during program)
- Case Study
- Comparisons between program participants (individuals, group, organizations) and non-participants

- Comparison between locales where the program operates and sites without program intervention

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}