

Food Systems and Biological Engineering

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V(A). Planned Program (Summary)

1. Name of the Planned Program

Food Systems and Biological Engineering

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
402	Engineering Systems and Equipment			4%	
404	Instrumentation and Control Systems			17%	
405	Drainage and Irrigation Systems and Facilities			3%	
501	New and Improved Food Processing Technologies			18%	
502	New and Improved Food Products			16%	
504	Home and Commercial Food Service			2%	
511	New and Improved Non-Food Products and Processes			8%	
702	Requirements and Function of Nutrients and Other Food Components			9%	
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources.			5%	
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins			18%	
	Total			100%	

V(C). Planned Program (Inputs)

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

Year: 2008	Extension		Research	
	1862	1890	1862	1890
Plan	0.0	0.0	2.0	0.0
Actual	0.0	0.0	6.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c 0	1890 Extension 0	Hatch 222003	Evans-Allen 0
1862 Matching 0	1890 Matching 0	1862 Matching 222003	1890 Matching 0
1862 All Other 0	1890 All Other 0	1862 All Other 5280612	1890 All Other 0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Basic and applied research will be conducted and the results disseminated via scientific publications, scientific meetings, workshops, conferences, etc.

2. Brief description of the target audience

Researchers, scientists, extension specialists, field operation managers, agricultural producers.

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	0	0	0	0
2008	0	0	0	0

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

Patent Applications Submitted

Year	Target
Plan:	0
2008:	1

Patents listed

Suppes, G.; Hsieh, F.; Tu, Y.; Kiatsimkul, P. Soy-based polyols. 2007. U.S. Provisional Patent Applications 20070265459, November 15.

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan	0	20	
2008	0	64	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

Number of peer reviewed journal articles

Year	Target	Actual
2008	10	34

Output #2

Output Measure

Number of other peer reviewed publications (book chapters, proceedings, abstracts, etc.)

Year	Target	Actual
2008	12	27

Output #3

Output Measure

Number of invited papers and invited presentations

Year	Target	Actual
2008	3	33

Output #4

Output Measure

Number of graduate degrees awarded

Year	Target	Actual
2008	4	15

V(G). State Defined Outcomes

O No.	Outcome Name
1	Develop new uses and products from biomass - food and nonfood (fuels, plastics, acids, etc).
2	Improve efficiency in conversion processes.
3	Food and water quality – develop sensing tools and assurance systems.
4	Food safety and health – develop biosensing and microbiological technologies.

Outcome #1

1. Outcome Measures

Not reporting on this Outcome for this Annual Report

2. Associated Institution Types

3a. Outcome Type:

3b. Quantitative Outcome

Year	Quantitative Target	Actual
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3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
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V(H). Planned Program (External Factors)

External factors which affected outcomes

- Public Policy changes
- Government Regulations
- Competing Public priorities

Brief Explanation

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

1. Evaluation Studies Planned

During (during program)

Evaluation Results

Individual faculty were reviewed by the Division Director aligned with Food Systems and Biological Engineering. Faculty submitted their research goals and accomplishments. Besides evaluating individual progress, the Division Director reviewed research progress and accomplishments in the context of the planned program. Results show continued progress in both basic and applied research.

Points of evaluation included the following:

- Research focus – was it relevant and consistent with the objectives of the planned program?
- Successful scholarship – were research results conveyed through peer reviewed publications?
- Successful grantsmanship – was the research quality high enough to successfully compete for external grant funds?

Key Items of Evaluation