

Plant Biology and Biochemistry

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V(A). Planned Program (Summary)

1. Name of the Planned Program

Plant Biology and Biochemistry

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
102	Soil, Plant, Water, Nutrient Relationships			6%	
201	Plant Genome, Genetics, and Genetic Mechanisms			14%	
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants			11%	
204	Plant Product Quality and Utility (Preharvest)			5%	
205	Plant Management Systems			10%	
206	Basic Plant Biology			26%	
211	Insects, Mites, and Other Arthropods Affecting Plants			4%	
212	Pathogens and Nematodes Affecting Plants			17%	
213	Weeds Affecting Plants			3%	
216	Integrated Pest Management Systems			4%	
	Total			100%	

V(C). Planned Program (Inputs)

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

Year: 2007	Extension		Research	
	1862	1890	1862	1890
Plan	0.0	0.0	15.0	0.0
Actual	0.0	0.0	25.0	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	2535875	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	2535875	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	13546694	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

Basic and translational 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
2007	0	0	0	0

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

Year Target

Plan: 0

2007: 2

Patents listed

Zhang Z, Nguyen H, Su J, Chen X. A high-frequency Agrobacterium-mediated transformation system for soybean [Glycine max (Merr.) L.] (U.S. provisional patent).

Wan J, Zhang Z, Stacey MG, Stacey G. LysM-receptor-like kinases to improve plant defense response against fungal pathogens. US Patent Application #60/836,084;

3. Publications (Standard General Output Measure)**Number of Peer Reviewed Publications**

	Extension	Research	Total
Plan			
2007	0	345	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

Number of peer reviewed journal articles

Year	Target	Actual
2007	70	138

Output #2

Output Measure

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

Year	Target	Actual
2007	9	206

Output #3

Output Measure

Number of invited papers and invited presentations

Year	Target	Actual
2007	2	55

Output #4

Output Measure

Number of graduate degrees awarded

Year	Target	Actual
2007	7	17

V(G). State Defined Outcomes

O No.	Outcome Name
1	Enhanced understanding of basic aspects of plant physiology and biochemistry.
2	Development of plant varieties with improved yield, disease and insect resistance and drought tolerance.
3	Development of new plant varieties with value added traits, such as oil and protein content.
4	Translation of basic knowledge gained in model systems for the improvement of cropping systems management.

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

Natural Disasters (drought, weather extremes, etc.)

Economy

Appropriations changes

Competing Public priorities

Brief Explanation

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

1. Evaluation Studies Planned

During (during program)

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}