

# Functional studies on cold and heat-regulated genes using tomato as a model plant

Functional studies on cold and heat-regulated genes using tomato as a model plant

## V(A). Planned Program (Summary)

### 1. Name of the Planned Program

Functional studies on cold and heat-regulated genes using tomato as a model plant

## V(B). Program Knowledge Area(s)

### 1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
201	Plant Genome, Genetics, and Genetic Mechanisms				100%
	<b>Total</b>				100%

## V(C). Planned Program (Inputs)

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

Year: 2008	Extension		Research	
	1862	1890	1862	1890
<b>Plan</b>	0.0	0.0	0.0	2.1
<b>Actual</b>	0.0	0.0	0.0	2.1

### 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	69214
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	0	28500
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	36149

## V(D). Planned Program (Activity)

### 1. Brief description of the Activity

Conduct gene expression research experiments, provide training for graduate students, develop products and services.

### 2. Brief description of the target audience

Plant breeders, seed companies, scientific colleagues, Extension service.

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## 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: 1

2008: 0

**Patents listed**

### 3. Publications (Standard General Output Measure)

**Number of Peer Reviewed Publications**

	Extension	Research	Total
Plan	0	1	
2008	0	1	1

## V(F). State Defined Outputs

**Output Target**

**Output #1**

**Output Measure**

Scientific publications pertaining to expression of temperature stress genes in plants

Year	Target	Actual
2008	1	1

**Output #2**

**Output Measure**

Patents for temperature stress genes

Year	Target	Actual
2008	1	0

**Output #3**

**Output Measure**

Temperature stress tolerant plant cultivars

Year	Target	Actual
2008	1	0

**Output #4**

**Output Measure**

Techniques to quantify heat and chilling stress tolerance in plants

*Not reporting on this Output in this Annual Report*

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**V(G). State Defined Outcomes**

O No.	Outcome Name
1	Temperature stress tolerant genes identified
2	Temperature stress tolerant plant cultivars developed

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**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

Competing Programmatic Challenges

**Brief Explanation**

{No Data Entered}

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

**1. Evaluation Studies Planned**

During (during program)

Time series (multiple points before and after program)

**Evaluation Results**

{No Data Entered}

**Key Items of Evaluation**

{No Data Entered}