

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

**Program # 5**

**1. Name of the Planned Program**

Sustainable Energy

Reporting on this Program

**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			10%	
202	Plant Genetic Resources			15%	
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants			10%	
204	Plant Product Quality and Utility (Preharvest)			10%	
205	Plant Management Systems			15%	
511	New and Improved Non-Food Products and Processes			25%	
605	Natural Resource and Environmental Economics			10%	
903	Communication, Education, and Information Delivery			5%	
	<b>Total</b>			100%	

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

1. Actual amount of FTE/SYs expended this Program

Year: 2013	Extension		Research	
	1862	1890	1862	1890
Plan	0.0	0.0	40.3	0.0
Actual Paid Professional	0.0	0.0	25.2	0.0
Actual Volunteer	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	229176	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	975677	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	840367	0

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

**1. Brief description of the Activity**

- Conduct outreach activities related to biobased products
- Develop value-added, agriculturally based end-use products
- Enhance partnerships among faculty across the Montana university system, producers, the agricultural industry, and other educational institutions across the region
- Develop sustainable fuels from crops grown in Montana

**2. Brief description of the target audience**

- Alternative energy groups and state agricultural advisory committees
- Crop and livestock producers in Montana
- Economic development groups
- Participants in extension and commodity group meetings, conventions, and conferences
- State of Montana, Montana Department of Agriculture, BLM, USFS, and other government entities

**3. How was eXtension used?**

eXtension was not used in this program

**V(E). Planned Program (Outputs)**

**1. Standard output measures**

2013	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Actual</b>	30	1000	0	0

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

Year: 2013  
 Actual: 0

**Patents listed**

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

**Number of Peer Reviewed Publications**

2013	Extension	Research	Total
Actual	5	7	0

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- New business partnerships created

Year	Actual
2013	0

**Output #2**

**Output Measure**

- Number of research citations

Year	Actual
2013	7

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

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	Number of new crop options with research trials as biofuels in Montana

## **Outcome #1**

### **1. Outcome Measures**

Number of new crop options with research trials as biofuels in Montana

Not Reporting on this Outcome Measure

### **V(H). Planned Program (External Factors)**

#### **External factors which affected outcomes**

- Natural Disasters (drought, weather extremes, etc.)
- Appropriations changes
- Public Policy changes
- Government Regulations

#### **Brief Explanation**

Research in sustainable energy is now conducted through non-MAES entities. MAES energy research will be incorporated into Climate Change and Environment, and Global Food Security: Plant Improvements, Genomics, and Products. We will not maintain sustainable energy as a planned program.

### **V(I). Planned Program (Evaluation Studies)**

#### **Evaluation Results**

MAES and COA researchers will continue to grow oilseed crops, but their efforts will focus primarily on feedstock energy.

#### **Key Items of Evaluation**

Research in sustainable energy is now conducted through non-MAES entities. MAES energy research will be incorporated into Climate Change and Environment, and Global Food Security: Plant Improvements, Genomics, and Products. We will not maintain sustainable energy as a planned program.