V(A). Planned Program (Summary)

Program # 8

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
123	Management and Sustainability of Forest Resources	10%	0%	0%	
131	Alternative Uses of Land	10%	0%	0%	
201	Plant Genome, Genetics, and Genetic Mechanisms	10%	0%	0%	
202	Plant Genetic Resources	10%	0%	0%	
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants	10%	0%	0%	
204	Plant Product Quality and Utility (Preharvest)	10%	0%	0%	
205	Plant Management Systems	10%	0%	0%	
206	Basic Plant Biology	10%	0%	0%	
403	Waste Disposal, Recycling, and Reuse	10%	0%	0%	
404	Instrumentation and Control Systems	10%	0%	0%	
	Total	100%	0%	0%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2014	Extension		Research	
	1862	1890	1862	1890
Plan	4.0	1.0	0.0	0.0
Actual Paid	4.5	0.0	0.0	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**
48845	0	0	0
1862 Matching	**1890 Matching**	**1862 Matching**	**1890 Matching**
48845	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

Energy Supply:
• Develop and deliver educational programs that work with citizens, businesses and government to support development of a sustainable and renewable energy supply in Florida.
• Develop and deliver programs that transfer new, research based technologies for renewable energy and alternative energy sources to Florida citizens and communities.
• Develop and implement extension educational programs to train producers, and processors about production, best management practices, marketing, processing technologies and distribution of biobased feedstock.
• Develop and deliver programs for policy makers and consumers to increase biofuels literacy.
Energy Conservation:
• Develop/deliver educational programs addressing energy issues (i.e., Sustainable Floridians)
• Create websites to increase knowledge of personal energy use (i.e., www.MyFloridaHomeEnergy)
• Support energy efficient retrofit programs (i.e., PACE, Florida Energy Efficient Loans)
• Work with utilities, financial institutions and government to evaluate energy efficiency programs
• Consult with landowners, developers and government to promote design, construction, and management practices that measurably reduce energy consumption in new developments (i.e., Plum Creek)

2. Brief description of the target audience

General public
Developers
Landowners
Agricultural producers/growers
Business
Local government
Financial institutions
Utilities

3. How was eXtension used?

eXtension was not used in this program

V(E). Planned Program (Outputs)

1. Standard output measures

2014	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	51076	121533	0	0

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

Patent Applications Submitted

Year: 2014

Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2014	Extension	Research	Total
Actual	2	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- {No Data Entered}

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Changes in Knowledge related to bio-energy: Sustaining and fueling Florida
2	Changes in behavior related to Bio-Energy: Sustaining and Fueling Florida
3	Change in Conditions related to Bio-energy: Sustaining and Fueling Florida

Outcome #1

1. **Outcome Measures**

Changes in Knowledge related to bio-energy: Sustaining and fueling Florida

Not Reporting on this Outcome Measure

Outcome #2

1. **Outcome Measures**

Changes in behavior related to Bio-Energy: Sustaining and Fueling Florida

Not Reporting on this Outcome Measure

Outcome #3

1. **Outcome Measures**

Change in Conditions related to Bio-energy: Sustaining and Fueling Florida

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

Brief Explanation

Many parts of the state are still struggling due to the economy. This leads to greater numbers of people in need of help. Controversial issues such as climate change and GMOs take additional time and care when building relationships and trust with clientele, partners, and other stakeholders. Cuts to the university budget in year's past continue to have some impact. We are in the process of evaluating our Extension staffing needs statewide to ensure we are using our human resources most efficiently.
The Energy Extension program that was expanded in our 2013 strategic plan is still underfunded and understaffed. UF/IFAS is undergoing a comprehensive examination of

their staffing needs vs. current status and will be evaluating the scope and scale of this newer program in light of that work.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

Statewide evaluation plan for Extension is not yet in place due to staffing shortages. Some examples of work in this area:
Pinellas County Efficiency Project (PEEP) hosted 20 energy classes and workshops to educate 404 residents about energy conservation behaviors and energy-water nexus. A majority of participants who completed evaluations reported an increase in knowledge.
After attending the Manatee County Energy Efficiency Project workshop, about 60% of respondents reported using at least two energy efficiency products from their free energy efficiency kit based on a three-month follow up survey. About one-fifth of respondents reported lower electric bills.
Sugarcane growers were educated about new energy cane varieties and their potential use in cellulosic ethanol production. Local growers showed interest in testing energy cane in some of their fields and increased their knowledge of growing energy cane on marginal land where sugarcane is not profitable.

Should this program be fully funded and staffed, we will work on gathering statewide data using the new Extension Toolbox as described in previous programs. This will greatly improve our ability to gather statewide data on sustainable energy, including the NIFA preferred indicators for this area: 1) the number of farmers who adopted a bioenergy crop, and 2) the number of tons of feedstock delivered.

Key Items of Evaluation

UF/IFAS is undergoing a comprehensive examination of their staffing needs vs. current status and will be evaluating the scope and scale of this newer program in light of that work.