

Biorefinery and Carbon Cycling Program

Biorefinery and Carbon Cycling Program

V(A). Planned Program (Summary)

1. Name of the Planned Program

Biorefinery and Carbon Cycling 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
133	Pollution Prevention and Mitigation	33%	33%	33%	33%
403	Waste Disposal, Recycling, and Reuse	33%	33%	33%	33%
605	Natural Resource and Environmental Economics	34%	34%	34%	34%
Total		100%	100%	100%	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	1.0	0.0	2.0	0.0
Actual	4.0	0.0	5.0	0.0

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

Extension		Research	
Smith-Lever 3b & 3c 344042	1890 Extension	Hatch 502711	Evans-Allen
	0		0
1862 Matching 344042	1890 Matching	1862 Matching	1890 Matching
	0	502711	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

Faculty at UGA are involved in numerous research and extension projects related to energy production from biomass. Attendance at the annual energy from biomass conference in Tifton is increasing each year. Numerous start-up companies are being established in Georgia to produce energy or fuels from biomass.

2. Brief description of the target audience

Farmers, agribusiness, community leaders, entrepreneurs

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	500	1000	0	0
2008	800	1200	30	30

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

Patent Applications Submitted

Year	Target
Plan:	5
2008:	5

Patents listed

1) Miscible, Multi-component, Diesel Fuels and Methods of Bio-Oil Transformation Published November, 2007 Dan Geller; 2) US Patent FILED (April 9, 2008): Substrate-Selective co-fermentation; 3) Provision Patent FILED (April 10, 2007): A novel fermentation strategy; 4) Patent FILED (April 2006): Method for controlling the cooling rate; 5) Patent disclosure (April 2006): Bio-oil diesel engine fuel

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan	0	0	
2008	0	0	4

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

Number of Significant Publications

Year	Target	Actual
2008	15	12

Output #2

Output Measure

Number of educational contact hours generated from formal programs for county agent in-service training.

Year	Target	Actual
2008	50	120

Output #3

Output Measure

Number of educational contact hours generated from programs or workshop presented directly to clientele.

Year	Target	Actual
2008	600	1200

V(G). State Defined Outcomes

O No.	Outcome Name
1	Percentage of program participants reporting increased knowledge after program participation
2	The development of successful commercial enterprizes using technology developed in this program.

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

Public Policy changes

Government Regulations

Competing Public priorities

Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

Changes in government policy are significantly influencing investment in these new technologies. The economy is also influencing the capital available for new ventures. The drought also is impacting our ability to produce some value added bioenergy crops.

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

1. Evaluation Studies Planned

After Only (post program)

Evaluation Results

No evaluation studies are currently planned although feedback from clientele is positive and demand for the programs is strong.

Key Items of Evaluation