Agronomy Production Systems

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V(A). Planned Program (Summary)

1. Name of the Planned Program

Agronomy Production Systems

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		32%		0%
501	New and Improved Food Processing Technologies		32%		0%
604	Marketing and Distribution Practices		36%		0%
	Total		100%		0%

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	4.0	0.0	0.0
Actual	0.0	4.0	0.0	0.0

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

Extension		Research	
Smith-Lever 3b & 3c 0	1890 Extension 137791	Hatch 0	Evans-Allen 0
1862 Matching 0	1890 Matching 137791	1862 Matching 0	1890 Matching 0
1862 All Other 0	1890 All Other 0	1862 All Other 0	1890 All Other 0

V(D). Planned Program (Activity)

1. Brief description of the Activity

The program focuses on demonstrating research-based information on the agronomic practices required for producing value added and marketing of syrup crops (sugarcane and sorghum). In the efforts of "Reviving the Syrup Industry in Mississippi", the ASUEP agronomy program demonstrates marketing and distribution practices that will educate sugarcane, sweet sorghum and syrup producers and processors in making crop or syrup marketing and distributions more profitable. The agronomy program included 36 marketing/distribution practices and educational demonstrations and workshops to evaluate and influence the profit producers and processors obtain from syrup crops/products. Contacts were made with 1,005 participants to deliver marketing/distribution practices and educational demonstrations during 160 program planning hours. There were 69 soil/water/nutrient educational demonstrations held to emphasize soil, plant, water, nutrient relationships using various tilling methods (No till and minimum tillage). Contacts were made with 245 participants to deliver educational soil/water/nutrient demonstrations during 331 program planning hours. Different fertilizer treatments and moisture applications were used to produce high income syrup crops, under selected Mississippi soils conditions. The agronomy program educated 1,090 producers on new and improved food processing technologies suited to the needs of the small farmers during 36 demonstrations. Such technologies include crop varieties that tolerate or resist natural environmental pest and pest management programs that utilize judicious combinations of pesticides, host resistance, and cultural methods. The impact of different plant management systems of plant density, row preparation, irrigation sources, application methods and other management practices on the growth and development of each test crop were demonstrated. The program increases minority landowners' awareness of income opportunities through syrup crop management practices by developing or improving soil management, crop production, processing and marketing techniques. The program educates limited resource producers and small farmers on the economic importance in soil fertility, nutrient sustainability and the vital role they play in crop production. Syrup crops, value added processing, and marketing educational programs are provided to farmers. This new technology allows farmers to make additional profits from their products. New and improved food processing technologies using the mobile syrup processing cooker (Mill on Wheels) is used to educate farmers on how to add value, package and market their syrup crops (sugarcane and sweet sorghum). Fundamental changes occurring in the state and regional economy, within which agricultural and horticultural enterprises operate, assist in the decrease of syrup producer's state wide. The specific implications of these external factors vary greatly by locale and across commodity and business forms. Population and land use changes in farming communities led to producer and neighbor issues that influence choice of production practices. Choices in improving production practices were influenced mainly by external factors as variations in climate during each growing season, inadequate appropriations, public policy and changes. Natural adverse conditions (natural disasters, drought, weather extremes, etc.) are major external factors that affected the outcome of state wide syrup crop production and marketing. The fluctuation in the agricultural and global economy determines profitability versus prices of commodities, supplies and other needed sources. Supply and demand will facilitate changes occurring in the state and regional economy within which agricultural enterprises operate. Public policy, especially those relating to comparative prices of inputs and harvested crops, is another constraint that affects outcomes. If it is politically feasible to provide farmers a high price for their product while holding down input cost, farmers will utilize the inputs as they accept the new technology. Municipal and commercial zoning such as competitive land use, shifting development patterns and global market influences are external factors that change government regulations and may affect outcome due to decrease in favorable agricultural land. Rezoning can also motivate or initiate changes in a rural population due to immigration, relocation and new cultural grouping.

2. Brief description of the target audience

The targeted audience will consist of limited-resource farmers, land owners and part time producers / processors.The goal is to increase sustainable agronomic practices and techniques on small limited resource farms in the state of Mississippi.

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	650	600	120	500
2007	600	650	100	560

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

Patent Applications Submitted

Year	Target
Plan:	0
2007:	0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan			
2007	0	0	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

Conduct educational seminars for Limited Resource farmers and youth in communities on Soil, Plant, Water, Nutrient Relationships of agronomic crops

Year	Target	Actual
2007	20	8

Output #2

Output Measure

Conduct educational workshop for limited Resource farm families and youth in communities on syrup crop production and marketing

Year	Target	Actual
2007	20	10

Output #3

Output Measure

Conduct educational field days for Limited Resource farm families and youth in communities on syrup crop production and marketing

Year	Target	Actual
2007	10	5

Output #4

Output Measure

Conduct educational tours for Limited Resource farm families and youth in communities on syrup crop production and marketing

Year	Target	Actual
2007	10	2

Output #5

Output Measure

Conduct educational training on agronomy production to limited resources farm families on syrup crop production and marketing

Year	Target	Actual
2007	15	8

Output #6

Output Measure

Develop and educational facts sheets on agronomy production to limited resources farm families on syrup crop production and marketing

Year	Target	Actual
2007	3	0

V(G). State Defined Outcomes

O No.	Outcome Name
1	Number of participants to gain knowledge on new production-management practices, techniques will gradually increase
2	Increase in the number of participants improving product handling of syrup crop and marketing value added products
3	Number of program participants to improve production efficiency through best management practices
4	Number of program participants for environmental impacts of their operations
5	Number of program participants pursuing opportunities to meet environmental regulations and programs on syrup crop production and marketing
6	Number of program participants utilizing integrated nutrient management for sustainable agronomic production and environmental protection
7	Number of program participants in integrated pest management for sustainable agronomic production and environmental protection
8	Number of program participants in waste management for sustainable agronomic production and environmental protection
9	Number of program participants in recycling methods for sustainable agronomic production and environmental protection
10	Number of producers to have adopted new syrup crop production, management and marketing practices and technologies
11	Number of producers assessed potential environmental impacts of their operations and management decisions on syrup crop production and marketing
12	Number of producers responded to environmental and market variations through alternative crop or management strategies on syrup crop production and marketing
13	Number of producers documented best management practices in their recommendations on syrup crop production and marketing
14	Number of producers documented to have assessed potential environmental impacts of their operations on syrup crop production and marketing
15	Number of producers developed and implemented nutrient management plans to meet production and performance goals and meet both State & Federal regulations on syrup crop production and marketing
16	The numbers of producers developed, implemented or modified current plans to meet production performance goals and meet both State & Federal regulations on syrup crop production and marketing
17	The number of producers documented to have improved economic returns to agronomic profitability and vitality resulting from enhanced production management practices on syrup crop production and marketing
18	The number of producers documented to meet or exceed current environmental protection standards as a result of participating in relevant educational programs in syrup crop production and marketing
19	The number of producers reported reduced environmental concerns for participating enterprises in syrup crop production and marketing

Agronomy Production Systems
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

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area

V(H). Planned Program (External Factors)

External factors which affected outcomes

Natural Disasters (drought,weather extremes,etc.)
Economy
Competing Public priorities
Competing Programmatic Challenges
Other (Lack of Experienced Personnel)

Brief Explanation

The planned program was affected adversly due to the retirement of the existing experienced Agronomy Specialst. Therefore the replacment will need a yearto adapt to the execution of the planned program in order to achieve the expected outcomes .

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

1. Evaluation Studies Planned

Before-After (before and after program)
Comparison between locales where the program operates and sites without program intervention

Evaluation Results

Collecting soil sample before planting crops were used to determine nutrient requirements for crop evaluation . Limited resource producer completed questionnaires in order to determine crop production problems. Farm visits were conduct to identify major crop varieties of interests and to gather document data for future interpretation. Document the impact of all field management practices would be observed and findings reported.

Evaluation studies are measured by the extent to which the farmers are diversifying to alternative crop production through sustainable agronomic production practices. Comparison of crop performances under improved production practices with those produced under the conventional production practices. Comparisons of quality crops produced and additional income generated by the farmers who adopted such resources/program against those still using conventional production practices.

Key Items of Evaluation