

FINAL REPORTS

PROJECTS FUNDED BY THE SOUTHERN REGION SMALL FRUIT

CONSORTIUM FOR 2009

Due Date: September 27, 2011

(This grant was finished earlier this year and copies of the budgets were sent to Dr. Monaco and Brenda on Wednesday, March 9, 2011, 5:51 AM via email).

Submission: Send electronically as an attachment to tom_monaco@ncsu.edu with a copy to: dabailey@uga.edu

Title: Enterprise Cost Analysis for Rabbiteye Blueberries and Southern High bush Blueberries in Soil in Georgia

Final Report

Grant Code i.e. SRSFC Project # 2009-E-04

(See your award notice for the code or go to the SRSFC web site for your code)

(<http://www.smallfruits.org/SRSFCReserchFunding/index.htm>)

Extension Proposal

Name(s), mailing and email address(s) of principal investigators

Esendugue Greg Fonsah (PI)
Associate Professor & Ext. Economist
Department of Ag & Applied Economics
University of Georgia
P.O. Box 1209 – RDC
Tifton, Georgia 31793
gfonah@uga.edu

Objectives

The overall objective of this study is to summarize the resources and estimate the costs associated with producing blueberries in Georgia in particular and the southeastern U.S. region at large. The specific objectives are:

- (1) to develop a new and/or updated the old Rabbiteye blueberry budget; and,
- (2) To develop a new and/or update the old Southern High bush blueberry budget.

Justification

Budgets are an integral part of planning and risk analysis for any agricultural production systems. Business managers, small, part-time and beginning producers, lending and financial institutions, state and federal service providers, government entities, agricultural support industries, educators,

extension specialists, county agents and legal advisors are all interested in the cost estimates and resource needs outlined in budgets. Unfortunately, the existing Rabbiteye and southern High bush blueberry enterprise cost analysis in Georgia (budgets) that were funded by Southern Region Small Fruit Consortium Grants in 2004 are all outdated. Since this research was carried out, there have been significant changes in terms of input prices, agricultural practices and production technologies. Consequently, there is a significant high demand from stakeholders for new Rabbiteye and Southern High bush budgets as they provide marketing and price guidance to this rapid growing industry at large and provide information needed for the day to day decision making process aimed at determining profitability of the growers and whether the industry is still viable and worth their investment especially given the current increased cost of inputs triggered by high energy cost.

Methodologies

Due to the record high cost of energy prices, agricultural input prices have drastically soared from last year until now. The increase in input prices had direct impact in the production of blueberries and direct negative correlation with profitability margin. Total costs of cultivating rabbiteye blueberries and southern high bush blueberry in soil included fixed costs (machinery, irrigation, recaptured establishment costs, land, overhead and management) and variable costs (i.e. fuel, fertilizer, insecticides, fungicides, labor, harvesting and marketing costs etc) respectively. To satisfy this need, several blueberry orchards were visited to study new technologies and agricultural practices in blueberry production and collect the necessary primary data for generating or updating the budget. Various blueberry specialists, Extension Agricultural Economists, Horticulturists, Biological and Ag-Engineers, and County Agents and farmers were visited to gather agronomic, irrigation and equipment data required to develop and/or update the old publications.

Furthermore, vendors of agricultural inputs (fertilizers, chemicals and equipment) were contacted to obtain latest prices needed to generate variable and fixed costs of rabbiteye blueberry and southern high bush blueberry in soil respectively. USDA, NASS and other publications were consulted to obtain historical information on productivity, marketing, inputs, prices and overall outlook of blueberries industry. The data collected, both primary and secondary were utilized to update both the rabbiteye and southern high bush blueberry budgets respectively. The newly developed budgets would also serve as a practical guide to Southeastern regions such as South Carolina, Tennessee and other neighboring states involved in blueberries production that do not have or have not had the opportunity to update their budgets. They could also facilitate the initial development of neighboring states blueberries budgets and serve as guidelines to farmers, county agents and financial institutions of those states without blueberries budgets respectively. They could further be used for comparison purposes by Southeastern blueberry growers to contrast their costs with production costs in Michigan and other states.

Results

Our results showed that profit margin for rabbiteye blueberry production in Georgia ranged from a worst return of \$1,818 per acre (7% of the time) to the best of \$6,910 per acre only (6% of the time). The expected base budgeted net revenue was \$2,970 with 99% chances of making a profit (Table 1).

Table 1: Net Returns Over Total Costs of Producing Rabbiteye Blueberries in Georgia, 2011.

Net return levels (TOP ROW);						
The chances of obtaining this level or more (MIDDLE ROW); and						
The chances of obtaining this level or less (BOTTOM ROW).						
	Best	Optimistic	Expected	Pessimistic	Worst	
Returns (\$)	6,910	6,078	2,970	3,549	2,684	1,818
Chances (%)	6%	16%	80%	0.70	0.84	1
Chances (%)			20%	30%	16%	7%
Chances For Profit =	99%	Base Budgeted Net Revenue =			2,970	

The scenario was different for southern high bush blueberry in soil in Georgia where the expected return 94% of the time was \$2,537 per acre. Profitability margins ranged from a worst of \$2,745 (7% of the time) to the best of \$9,187 per acre (7% of the time). The best net return usually happens once in life time. However, the net revenue of producing southern highbush blueberry in soil in Georgia in this study was \$3,587 (Table 2).

Table 2: Net Returns Over Total Costs of Producing Southern High Bush Blueberry in Soil in Georgia, 2011.

Net return levels (TOP ROW);							
The chances of obtaining this level or more (MIDDLE ROW); and							
The chances of obtaining this level or less (BOTTOM ROW).							
Items	Best	Optimistic		Expected	Pessimistic		Worst
Returns (\$)	9,187	8,113	7,040	2,537	4,892	3,819	2,745
Chances (%)	7%	16%	31%	94%			
Chances (%)				6%	31%	16%	7%
Chances for Profit =	99%	Base Budgeted Net Revenue =			\$3,587		

Conclusions

This final product will provide solutions to the growers of the rabbiteye and southern highbush blueberries production in Georgia and the Southeast regions concomitantly. Growers who were caught between the choice of which cultivars to grow can now make a better business decisions. Also due to labor and immigration problems, growers who were worried about which cultivar to grow without getting caught up with shortage labor issues can now confidently make that decision. These budgets will facilitate their decision process after comparing net return of each cultivar (rabbiteye vs southern high bush). The Georgia blueberry industry is dynamic, fast growing and still rising due to strong consumer demand.

Impact Statement

The newly developed budgets would definitely serve as a practical guide to Southeastern regions such as South Carolina, North Carolina, Florida, Tennessee and other neighboring states involved in blueberries production that do not have budgets yet. They would also facilitate the initial

development of neighboring states blueberries budgets and serve as guidelines to farmers, county agents, insurance companies, USDA and financial institutions of those states without blueberries budgets respectively. They would further be used for comparison purposes by Southeastern blueberry growers to contrast their costs with production costs in Michigan and other states.

Citation(s) for any publications and poster arising from the project

(*) Denote posters.

1. **Fonsah, E. G.**, G. Krewer, J. Ed. Smith, D. Stannaland and J. Massonnat. (2011). “Rabbiteye Blueberries Budget in Georgia”.
<http://www.ces.uga.edu/Agriculture/agecon/budgets/printed/blueberryBudget.pdf>
2. **Fonsah, E. G.**, G. Krewer, J. Ed. Smith, D. Stannaland and J. Massonnat. (2011). “Southern Highbush Blueberries Budget in Soil in Georgia”.
<http://www.ces.uga.edu/Agriculture/agecon/budgets/printed/highbushblueberry.pdf>
3. **Fonsah, E. G.**, G. Krewer, J. Ed Smith, D. Stannaland and J. Massonnat (2011). “Economic Analysis of Blueberry Production in Georgia Using Enterprise Budget”. *J. of Food Distr Res: 42(1):54-58*.
4. ***Fonsah, E. G.**, G. Krewer, J. Ed. Smith, D. Stannaland and J. Massonnat (2011). “Profitability Analysis of Establishing and Producing Rabbiteye Blueberries in Georgia”. Poster presented at the Southeast Regional Fruits and Vegetable Conference, Savannah, GA, January 6 – 9.

Presentations at Regional Conferences

1. **Fonsah, E.G.**, G. Krewer, J. Ed Smith, D. Stannaland (2010). “Economic Analysis of Blueberry Production in Georgia using Enterprise Budget”. Presented at the Food Distribution Research Society Conference, Sandestin Hilton Beach Resort, Florida, October, 19.
2. **Fonsah, E.G.**, G. Krewer, D. Stanaland and J. Ed. Smith (2009). “New Enterprise Cost Analysis for Blueberries in Georgia”. Presented at the FDRS Conference, The Omni Interlocken Resort, Broomfield, Colorado, October 31- November 04, 2009.

Acknowledgement

The authors would like to express their gratitude to the Southern Region Small Fruit Consortium for funding this project.