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(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

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Extension Proposal

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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cost analysis in Georgia (budgets) that were funded by Southern Region Small Fruit Consortium Grants in 2004 are all outdated.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 soured 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.
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 lifetime. 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.

<table>
<thead>
<tr>
<th>Items</th>
<th>Best</th>
<th>Optimistic</th>
<th>Expected</th>
<th>Pessimistic</th>
<th>Worst</th>
</tr>
</thead>
<tbody>
<tr>
<td>Returns ($)</td>
<td>9,187</td>
<td>8,113</td>
<td>7,040</td>
<td>2,537</td>
<td>4,892</td>
</tr>
<tr>
<td>Chances (%)</td>
<td>7%</td>
<td>16%</td>
<td>31%</td>
<td>94%</td>
<td></td>
</tr>
<tr>
<td>Chances (%)</td>
<td>6%</td>
<td>31%</td>
<td>16%</td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>Chances for Profit =</td>
<td>99%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Base Budgeted Net Revenue =</td>
<td>$3,587</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.


**Presentations at Regional Conferences**


**Acknowledgement**

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