

Project Report

Submitted to: Georgia Agricultural Commodity Commission for Peanuts

Project Title: Conservation and Profitability in Peanuts

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Objective: Develop and revise enterprise budgets to include analysis of conservation practices. Conduct economic analyses of production practices and conservation technologies for the purpose of improving profitability by working with the UGA Peanut Team, researchers and county Extension agents.

Update: This project provides partial funding support (salary & benefits and operating & travel expenses) for Ms. Amanda Ziehl - Public Service Assistant in the Dept of Ag and Applied Economics located at the UGA Tifton Campus. The position provides support for peanut conservation economics under the leadership and direction of Dr. Nathan Smith for the benefit of the state's peanut producers, industry and industry leadership.

UGA Enterprise Budgets and the UGA Crop Comparison Tool. Enterprise budgets for conventional-tillage (dryland & irrigated) peanuts and strip-tillage (dryland & irrigated) peanuts were developed. An Excel spreadsheet decision tool was also created to help producers with their 2008 planting decisions. The UGA Crop Comparison Tool is user-friendly and consistent with budget format and terminology. County agents were trained in using the enterprise budgets and crop comparison tool. Numerous agents have used the budgets and crop comparison tool with producers and have requested these be a topic at county production meetings. The budgets and crop comparison tool continue to be used as both input (fertilizer, fuel, seed and chemical) and output (commodity) prices change. The UGA Enterprise Budgets are available as printed files and as an interactive computer spreadsheet file on the Department of Agricultural and Applied Economics Extension Website at: <http://www.ces.uga.edu/Agriculture/agecon/agecon.html>. The Crop Comparison Tool for both conventional-till and strip-tillage operations can be found at: <http://www.ces.uga.edu/Agriculture/agecon/budgets/budgetsexcel.htm>

Irrigation Scheduling in Strip-Till Peanuts. Economic analysis of a 3-year study on the response of peanut yield and grade to irrigation scheduling was conducted to determine the cost and return to three different irrigation scheduling programs (Irrigator Pro, UGA EASY Pan, and a modification of UGA Extension recommendations based on the Stansell and Pallas water curve for peanut). Results indicate a potential for higher net returns to irrigation using the UGA EASY Pan program across several varieties. However, Irrigator Pro appeared to have a higher net return to irrigation for the Georgia Green variety.

On-Farm Analysis of Conservation vs Conventional Tillage Peanuts. With the objective to verify the costs and operations in the strip-till peanut enterprise budgets with actual on-farm costs, cost and yield data were collected on four farms in Pulaski County. Three farms used conservation tillage methods to produce peanuts, while one farm used conventional tillage methods. Analysis of the data indicated that the UGA enterprise budget for irrigated, strip-tillage peanuts was comparable to actual on-farm operations and costs. Most significantly, the budget had higher chemical costs. Across farms, the conservation tillage farms had lower fixed costs than the conventional tillage farm. In addition, the conservation tillage farms had higher yields on average and therefore required a lower breakeven price to cover operating costs.

Future research will include analysis of conservation tillage operations, precision agriculture, and on-farm conservation practices. Future educational programming will include county production meetings on conservation policy and production economics.

Submitted by:

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