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NATIONAL PEANUT BOARD/SOUTHEAST PEANUT RESEARCH INITIATIVE
QUARTERLY PROGRESS REPORT FOR WORK DONE UNDER RESEARCH AGREEMENT

Final Report
January 15, 2016

INSTITUTION: University of Georgia

PROJECT TITLE: Analysis of Production Costs for SE Peanut Producers

RES. AGR. NO.: 26-31-RE670-324
GACCP Contract NO.: 4-957

PROJECT LEADER: Dr. Nathan Smith

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FINAL REPORT:

Project 26-31-RE670-324 titled Analysis of Production Costs for SE Peanut Producers is a project to conduct economic analyses for SPRI research projects that lend themselves to economic analysis and conduct research related to costs and returns and profitability of peanut production.

Economic analyses performed during the project include continuing work on a peanut replant decision tool,

Peanut Replant Decision Tool

A replant decision tool for Georgia peanut farmers was developed based on results from Ph.D. study by Jason Sarvor under direction of Dr. Scott Tubbs. A search for additional data from planting date and seeding rate studies was undertaken and usable data from previous studies by Dr. Beasley and Dr. Tubbs were included in developing the models and decision aid. Four different locations, Attapulgus, Midville, Plains and Tifton were investigated for differences to include in the model as a variable for different soil types. This replant decision tool is aimed to help farmers and county agents to go through the making decision process of whether or not to replant a sparse stand. The tool is an Excel spreadsheet designed for users to estimate the economic net return for different "what if" scenarios. At present, the tool is developed for irrigated peanut crops due to data only from irrigated studies. Further research for non-irrigated crops is needed to add estimate an expected yield based on replant date, stand count and seeding rate. Results have been presented at APRES and GACAA annual meetings. This work has been developed by an UGA Graduate student as part of his thesis dissertation work and is expected to be published in an agricultural journal.

ARC and PLC tools for the 2014 Farm Bill

During farm bill education and training of county agents, a spreadsheet tool was developed to estimate expected ARC and PLC program payments for growers to use to make election decisions. The PI and select county agents used the spreadsheet to show differences in ARC and PLC programs for peanuts. This tools shows at what price and yield a payment

would trigger based on the benchmark revenue guarantee under the Agricultural Risk Coverage program. It is based on 5 year Olympic average of 2009 through 2013 county yield and US marketing year average price. Essentially, the tool is a matrix that shows at different levels of marketing year price and yields what could be the potential payment expected from the program.

Economic Analysis of the Peanut Rx Decision Tool

Peanut Rx has been a very successful decision tool for managing spotted wilt in its beginnings and now includes foliar and soil borne disease risks. An effort was begun to incorporate economic analysis to this tool now that it is an APP that growers can download to a smartphone. Data that was obtained for the replant decision model was used to simulate gross return at different levels of risk. Upon entering the data into the Peanut Rx model, it was found that the research data fell almost exclusively in the medium to low risk categories. Results showed as expected, the higher the level of risk the lower the gross return achieved. Due to nature of data available, results for high level of risk may not be accurate and additional research/data is suggested before to move into definitively incorporate current results to the tool.

Economic Analysis of the Peanut Crop Rotation

An economic analysis for peanut rotation aimed to evaluate economic differences between short and long peanut rotation scenarios was developed. Data from Dr. Scott Tubbs long term cropping systems project was used where results were available for 2013 and 2014 that included three and four year rotations. Usable data was found for peanut and cotton rotations, the corn yield results were not reliable for estimating returns for corn in the rotation. Results so far, indicate that 3 and 4 year rotations provide higher net returns. One year rotation was statistically lower compared to 2, 3 and 4 year rotations due to additional fungicide costs incurred in the short rotation. Data from 2015 will be add to the analysis in order to improve statistical validity.

Peanut Market Price Tool

The NASS season average price is used to calculate the PLC payment under the new farm bill. A spreadsheet tool was developed that tracked weekly peanut marketings and prices by type for the 2014 and 2015 crops. The tool was developed to give growers and lenders a way to follow the weekly price and progress of the marketing year. It calculated the marketing year average price by type and for all peanuts and the year progressed. The calculation turned out to be quite accurate in estimating the 2014 PLC payment. USDA published an average price in December but did not update it until the end of the marketing year. Spreadsheet was posted on the UGA Agricultural and Applied Economics webpage under the Extension link. website http://www.agecon.uga.edu/extension/

Peanut Warehouse Licenses report

A report of the 2014 peanut warehouse database report by license (capacity) was created. This report was used by the National Center for Peanut Competitiveness for mapping peanut warehouse locations across US.

Certified Seed Production Peanut Acres

A report of acres certified for seed peanut production was developed by acquiring certified seed acres going back to 1990 through 2014. The report compiles acres certified by type and variety as well as producer. The certified seed acres was compared with planted acres to see if there is a strong correlation that could be used to project planted acres the next year. No strong correlation was found.

Economic Analysis of Velum and Telone II

An economic analysis was conducted for a county demonstration in Mitchell County on nematode control of peanut with Velum Total versus Telone and non-treated treatment. Differences in yield and grade achieved versus additional cost of pesticides were analyzed. According to this study, Telone II showed better results in terms grade, yield and return over variable cost for the one year of data. In the first year, yield and grade achieved by Velum treatment did not cover the cost of treatment compared to Telone. Additional years of data are needed to make any statistical inferences.

Peanut Crop Insurance Price Calculator

Revenue insurance is now available for peanuts and the spring Reference Price and fall Harvest Price is determined by a formula using cotton, soymeal and wheat futures during a month long time period. A spreadsheet and table was created and posted online to follow the price discovery periods of Jan 15-Feb 14 and Oct 1-Oct 30. The report was available on the Georgia Peanut Commission website, www.gapeanuts.com, and the UGA-Agricultural and Economics department website http://www.agecon.uga.edu/extension/.