

ESTABLISHMENT OF A LONG-TERM SUSTAINABILITY PROGRAM FOR PEANUT PRODUCTION IN GEORGIA UTILIZING THE FIELD TO MARKET FIELDPRINT CALCULATOR

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Many sectors across the agricultural industry have developed sustainability goals as a way to meet consumer demands for sustainably sourced food and fiber products. With partnerships between the University of Georgia, Georgia Peanut Commission, and Cotton Incorporated a sustainability project was created to quantify and evaluate sustainability goals using the Field to Market Fieldprint Calculator. The main objective of this on-going research is to evaluate sustainability practices in peanut production in Georgia and how they vary from year-to-year. The following goals were established to help achieve our project objective:

- **Goal 1:** Create baseline data from research that evaluates the environmental impact of the crops
- **Goal 2:** Meet with individual growers and their Extension Agents to assess current environmental and sustainability statuses and provide insight to help improve their farm's sustainability scores
- **Goal 3:** Create long-term benchmarks based on trends to help improve environmental impacts

Extension Agents in the Southwest and Southeast districts in Georgia were contacted to collect data in their respective counties. There are currently 45 growers across 27 different counties that are actively participating in this research. At the start of the hour-long interview, growers were briefed on the purpose of the study, the research methods, and storage of all information that is collected. Management practices for the grower's peanut crop for that year is collected. To provide an accurate representation of the grower's total peanut crop, management practices are collected on a field that represents 10% of the grower's total peanut acres. Once the in-person interviews are complete,

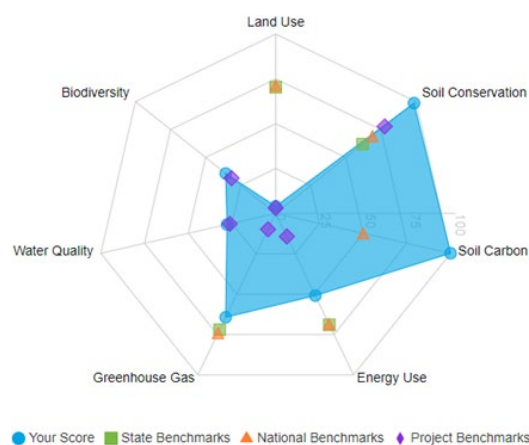


Figure 1. Spidergram that compares the grower's (blue), project (purple), state (green), and national benchmarks (orange) for peanut production in Georgia.

the data is then entered into the Field to Market Fieldprint Calculator database where data analysis was conducted. This tool calculates the grower's information and provides sustainability scores based on eight different sustainability metrics. These metrics include: land use, soil conservation, soil carbon, irrigation water use, energy use, greenhouse gas emissions, water quality, and biodiversity. The Fieldprint Calculator presents the eight sustainability metrics in a spidergram where the grower results are shown in blue and are compared to project (purple), state (green) and national benchmarks (orange) (Figure 1).

As of 2020, Georgia peanut growers enrolled in this project have at least two years of sustainability results. While meeting with growers and their local Extension Agents, we have developed cumulative report packets comparing their spidergrams from year-to-year. This provides an opportunity to show the grower their sustainability progress over the years all while providing insight on areas in their production practices where they can seek improvement.

It has been a common theme in Georgia peanut production that the soil conservation, soil carbon, energy use, and greenhouse gas sustainability metrics could be improved. Luckily for growers, these four metrics have common production practices that can be implemented which will improve the score simultaneously. Some of these practices include incorporating cover crops, using wind barriers, reducing trips in the field, and using an irrigation schedule.

As we continue this research, five new peanut growers will be added with each new year of the study. With the multiple years of data, we are beginning to evaluate current peanut data for trends. This information will then be provided to the growers in the in-person interviews and to Extension Agents at their regional trainings.