QUANTIFYING PEANUT SUSTAINABILITY AND EXPLORING OPPORTUNITIES FOR GROWTH USING FIELD TO MARKET

Anna Hartley
Wesley Porter
University of Georgia

With an established need in mind, a sustainability project was created in partnership between the University of Georgia, National Peanut Board, American Peanut Council, Georgia Peanut Commission, and Cotton Incorporated with the purpose of understanding the current levels of production in terms of the sustainability metrics generated by Field to Market's Field Print Calculator to look for areas in which production improvements can be made, and look for educational opportunities for both producers and the general public.

To achieve our desired purpose the following goals were created and designed to be achieved over a five-year period.

- **Goal 1: Create Baseline Data-** The peanut industry is currently focusing on science-based research to assess the environmental impact and sustainability of the crop.
- **Goal 2: Educational Events-** The researchers plan to host educational meetings with extension agents and producers in which sustainable agriculture practices will be discussed.
- **Goal 3: Create Long-term Benchmarks-** Based on trends and benchmarks, claims on the reduction of the environmental impact of peanuts will be made.

Data collection followed a qualitative method in which in-person interviews with farmers were completed. We contacted extension agents and have collected data from Burke, Jefferson, Jenkins, Screven, Emanuel, Bulloch, Dooly, Dodge, Telfair, Jeff Davis, Appling, Ben Hill, Irwin, Berrien, Turner, Tift, Worth, Lee, Terrell, Calhoun, Early, Miller, Mitchell, Colquitt, Decatur, Grady, Thomas, and Brooks counties in Georgia. Participants were briefed of the purpose of the study, the research methods, and the storage of all information at the beginning of each interview and were given the opportunity to ask any questions of the researcher. Following this, an at-most hour-long interview was conducted with the producers to ask them specific questions from a survey. Data analysis was supported by the Field to Market Fieldprint Calculator. The calculator uses the information input to assess a sustainability score based on the metrics of biodiversity, energy use, greenhouse gas emissions, irrigation water use, land use, soil carbon soil conservation, and water quality.

As this study is still in progress results will be limited to the analysis of information collected thus far. The following tables present the average information for both the dryland and irrigated peanut fields included in this project and will be followed by a discussion. Currently, there are 48 participants in the study from across the state of Georgia. The size of production for the growers ranges in size from 100 acres to over 1000 acres of peanuts. The average size of individual fields was 89 acres.

Dryland Peanuts

Metric	Project	State	National
Land Use (acre / lb.)	0.0002	0.0004	0.0004
Soil Conservation (ton / acre / year)	5.1	9.9	10.9
Energy Use (btu / lb.)	1,001	1,726	1,714
Greenhouse Gas (lbs_co2e / lb.)	0.1	0.3	0.3
Water Quality	7.33	N/A	N/A
Biodiversity (%)	65.9	N/A	N/A

Irrigated Peanuts

Metric	Project	State	National
Land Use (acre / lb.)	0.0002	0.0002	0.0002
Soil Conservation (ton / acre / year)	10.4	9.9	10.9
Irrigation Water Use (acre-inch / lb.)	0.005	0.008	0.018
Energy Use (btu / lb.)	2,033	1694	1867
Greenhouse Gas (lbs_co2e / lb.)	0.2	0.3	0.3
Water Quality	6.86	N/A	N/A
Biodiversity (%)	65.9	N/A	N/A