

Nick Hurdle

Georgia Peanut Commission Research Report

Comparing GA-06G to Other Peanut Cultivars for Physiological Trait Relationships for Seed Germination, Vigor, Stand Establishment, and Production: Year 1

On May 2<sup>nd</sup>, 2017, 4 peanut cultivars were planted in Plains, GA according to proper planting procedures. Cultivars included GA-06G, GA-14N, TufRunner 511, and FloRun 157. Herbicides utilized in this study included PRE's of flumioxazin and pendimethalin. POST treatments included imazapic, paraquat, fomesafen, and fluazifop-p-butyl. After treatments were applied, the peanut plants were analyzed using a LI-6400XT (LI-COR, Inc., Lincoln, NE) measure biochemical processes such as photosynthesis and CO<sub>2</sub> conductance. Other data measurements taken were the seed grade, quality, and oil content. The next phase of this study includes determining the herbicide effects on cultivar germination and vigor. Cultivars will be plated in the coming weeks and contained in a petri dish including blotter paper for a source of moisture. Cultivars will be exposed to a range of temperatures on a thermogradient table. Measurements taken will include the radicle growth over 7 days. The table portion of this study will be conducted in the coming months followed by the field portion when optimal planting conditions occur.