

257  
GA-111  
588  
2008

**NATIONAL PEANUT BOARD / SOUTHEAST PEANUT RESEARCH  
INITIATIVE**

**Executive Summary** for work done under project agreement entitled:  
“Agronomic practices and strategies for organic management and production of peanut”.

NPB Project # 257  
GPC Budget # 4-911-653-5  
UGA Account #25-21-RF328-807

INSTITUTION: University of Georgia

Principle Investigator: Dr. R. Scott Tubbs

EXPIRATION DATE: 30 June 2009

SPRI CONTACT: Emory Murphy

NPB CONTACT: Marie Fenn

**Executive Summary:**

Demand for organic peanut products is high, and economic incentives exist for producing certified organic peanuts. However, lower yields, a shift in input costs (fewer expenses on pesticides, but increased expenses on cultivation, hand-weeding, and land-certification), and less revenue potential during transition to certification will often negate premium contract prices. Production of organic peanuts has historically been limited in the southeastern U.S. because of heavy pest pressures. Without a local supply of organic peanut products, these foods must be trucked in from other regions, which defeat many of the principles behind the concept of organic agriculture. But, recent cultivar releases with excellent disease resistance and yield potential may make organic peanut production more feasible in Georgia. Thus, a focus on weed control under organic peanut management may determine the viability of the southeast peanut region becoming a regional supplier for the organic market segment.

A strip-split plot experiment was planted on June 6, 2008 in Tifton, GA. The main plot effect was cultivar (‘Georganic’ and ‘Tifguard’) and strip-plot effect was cultivation duration and intensity using a flex-tine cultivator (weekly for 3, 4, or 5 weeks and twice per week for 3, 4, or 5 weeks). Supplemental weed control with a flat sweep cultivation (between rows) and hand-weeding (within rows) occurred in cultivated plots. All management practices that were used met organic production standards. Untreated seed were planted and no fertilizers or pesticides were applied during the experiment.

The variables that were able to be collected for all treatments (including the untreated check) were pod yield and harvest stand count. A yield difference was observed between cultivars with Tifguard (3796 lb/ac) producing more than Georganic (2532 lb/ac). All

257  
GA-111  
588  
2008

**NATIONAL PEANUT BOARD / SOUTHEAST PEANUT RESEARCH  
INITIATIVE**

**FINAL REPORT** for work done under project agreement entitled:  
“Agronomic practices and strategies for organic management and production of peanut”.

NPB Project # 257  
GPC Budget # 4-911-653-5  
UGA Account #25-21-RF328-807

INSTITUTION: University of Georgia  
Principle Investigator: Dr. R. Scott Tubbs  
EXPIRATION DATE: 30 June 2009  
SPRI CONTACT: Emory Murphy  
NPB CONTACT: Marie Fenn

**FINAL REPORT:** Since Georgia is the world’s leading producer of peanuts, it is natural that the industry looks to Georgia as a leader in most aspects of peanut production, handling, and processing. However, one area in which Georgia has been unable to compete strongly is in the production of organic peanuts. Much of that aspect of peanut production has traditionally occurred in dry climates since the humid climate of the southeastern U.S.A. make peanut plants vulnerable to the spread of numerous diseases without the protection of inorganic fungicides. However, as new disease resistant cultivars become available, Georgia may now be able to be a player in organic production, one of the fastest growing markets in agriculture.

The largest hurdle in organic crop production is weed control once a healthy stand is established. Without the use of herbicides, a heavy reliance on cultivation is the primary method of suppressing weeds. Therefore, the objectives of this project are to determine if growing peanuts organically has any potential, and what levels of cultivation are necessary in order to produce a harvestable crop.

A strip-split plot experiment was planted on June 6, 2008 on University of Georgia’s Tifton Campus. Two reps were planted in an area that is USDA certified for organic production by Georgia Crop Improvement Association, Inc. The other two reps were planted in a non-certified area that has been managed organically with no inorganic inputs in the last three years. It should be noted that the first two reps located in the certified organic field have had very active weed control the previous three years and that field has very low weed pressure at the outset of this trial. The other two reps in the non-certified area have not been actively controlled for weeds and thus had a greater density of weeds to deal with heading into peanut planting.