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

FINAL REPORT for WORK DONE UNDER RESEARCH AGREEMENT # 26-31-RE671-399 GACCP TRISTATE PROJ BEASL

INSTITUTION: University of Georgia

PROJECT TITLE: Tri-State Project to Evaluate the Need for Peanut Inoculum in the Non-Traditional Areas of Peanut Production

RES. AGR. NO.: 26-31-RE671-399

PROJECT LEADER: Dr. John P. Beasley, Jr.

EXPIRATION DATE: 30 June 2008

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FINAL REPORT: A trial was established to evaluate different liquid and granular inoculants on a field that had never had peanut production. The trial was planted on May 29 and the cultivar planted was AP-3. The treatments were: Optimize LIFT, Vault liquid, Soil Implant Plus (granular), and Vault granular. There was also an untreated check. At approximately 30 days after planting root samples were taken to determine the level of inoculant activity.

The experimental design was a randomized complete block. Individual experimental units (plots) were 6 feet (2 rows) by 900 feet long. There were four replications. Data collected included: yield, percent total sound mature kernels, plant stand (30 days after planting), plant weight samples (August 17), plant weight samples (September 18), nodule weight (grams), and root weights (grams).

Analysis of the data indicated no significant difference among treatments for all parameters that were measured (Table 1 below). This was a complete surprise due to the fact that during the season the non-treated plots remain very light green to yellow in color compared to normal "green" color for the cultivar AP-3. We expected to see a significant yield reduction for the non-treated plots. One possible explanation is that the area in which the trial was conducted had 25 continuous years of corn for silage production. Approximately 200 pounds per acre of nitrogen was applied in this field every year for those 25 years. Even though there was no yield difference between the untreated check and the four types of inoculants, there must have been enough residual nitrogen to support pod production without enough nitrogen to provide a darker green canopy color.