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

FINAL REPORT for WORK DONE UNDER RESEARCH AGREEMENT # 26-31-
RE671-400 GACCP TRISTATE PROJ BEASL

INSTITUTION: University of Georgia

PROJECT TITLE: Influence of Kill Date (Fall vs. Spring) and Tillage on
Peanuts after Bahiagrass

RES. AGR. NO.: 26-31-RE671-400

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

EXPIRATION DATE: 30 June 2008

SPRI CONTACT: Emory Murphy

NPB CONTACT: Marie Fenn

FINAL REPORT: A trial was established to evaluate the response of peanut following bahiagrass when the bahiagrass was killed in the fall versus spring. Tillage comparison was strip tillage into bahiagrass killed in the fall versus spring and conventional tillage. AP-3 cultivar was planted on May 23rd. The experimental design was a randomized complete block with six replications. Individual experimental units were 18 feet wide (6 rows) by 50 feet in length planted in a 36" single row pattern. The four treatments were:

- 1) Fall killed bahiagrass, conventional spring tillage
- 2) Spring killed bahiagrass, conventional spring tillage
- 3) Fall killed bahiagrass, strip tillage in the spring
- 4) Spring killed bahiagrass, strip tillage in the spring

The plots that were killed in the fall died off well before normal dormancy and did not "green back up" in the spring. Those plots, either conventional or strip till, were easier to plant in the following spring. The spring killed plots required two applications of glyphosate to adequately kill the bahiagrass for planting.

Analysis of the yield data indicated there was no interaction between kill time of the bahiagrass and the type of tillage. There was a significant difference between timing of the bahiagrass kill with the plots that were killed in the fall having a significantly higher yield when averaged over tillage (Table 1). Analysis of the percent total sound mature kernels did indicate an interaction between kill timing and tillage.

Table 1. Yield response of 'AP-3' peanut cultivar to timing of kill date of bahiagrass when averaged over conventional and strip tillage, Coastal Plain Experiment Station, Rigdon Farm, 2007.

Kill Timing of Bahiagrass	Yield (lbs/acre)
Fall	3,623 a
Spring	2,807 b
LSD (0.05)	236

The ease of land preparation and planting following killing bahiagrass in the previous fall resulted in a higher yield. The percent TSMK for the two kill dates were 69%.