

**TOLERANCE AND ECONOMICS OF SPANISH PEANUT TO SOIL-APPLIED COTTON HERBICIDES AFTER CROP FAILURE.** Z. H. Braden, P.A. Dotray, J.W. Keeling, and K.M. McCormick. Texas Agricultural Experiment Station and Texas Tech University, Lubbock, TX.

ABSTRACT

The objectives of this study were: to determine the tolerance of Spanish peanut to cotton herbicides planted after a crop failure and to compare the economics of replanting with Spanish peanut versus cotton.

Cotton was originally planted in 2003 and 2004 at the Western Peanut Growers Research Farm near Denver City, TX on a loamy, fine sand. Preemergent herbicide treatments were applied at 10 GPA and included: Prowl at 0.50 lb ai/A, Staple at 0.063 lb ai/A, Dual Magnum at 1.0 lb ai/A, Caparol at 0.80 lb ai/A and Caparol + Staple at 0.80 + 0.032 lb ai/A, compared to an untreated and replicated three times. The trial was originally set to be destroyed with paraquat; however, a significant weather event on June 3 destroyed the trial. Cotton (PM 2280RR) and Spanish peanut (Olin) were replanted in the test area. Half of the plot was re-bedded and rod-weeded (tilled) and the other half was not re-bedded and rod-weeded (no-tilled). Injury ratings were taken at 13, 28, 31, 62, and 123 days after planting (DAP). Plots were harvested and samples were collected to calculate yields and gross returns were determined.

These data indicate that Spanish peanut is tolerant to some cotton herbicides. Visual injury from cotton herbicides did not equate to decreases in yield or gross returns. Cotton injury and reductions in lint yield and gross returns were not apparent in a no-till situation.