

Peanut Variety Response to Brake®

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Brake® (fluridone), manufactured by SePRO Corporation, is an herbicide under evaluation for potential preemergence (PRE) use in peanut. Brake® was recently registered for PRE use in cotton and has been sold for numerous years in the aquatic weed control market as Sonar®. Therefore, the objective of this research was to determine the effects of Brake® 1.2SL on the growth, development, and yield of several peanut varieties when applied PRE at 0, 16, 32 and 64 oz/A. Irrigated, small-plot field trials were conducted in 2019 and 2020 at the UGA Ponder Research Farm near Ty Ty, Georgia. Treatments were arranged in a randomized complete block design with a three (variety) X four (rate) factorial arrangement with four replications. Peanut varieties included GA-06G, GA-16HO, and GA-18RU. All plot areas were maintained weed-free using a combination of labeled herbicides and hand-weeding. Data collected included Brake® effects on peanut density, foliar bleaching, plant stunting, and yield. All data were subjected to ANOVA using PROC GLIMMIX and means separated using the Tukey-Kramer Method ($P=0.05$). Peanut density was significantly reduced by 19% at the 32 oz/A rate and by 46% at the 64 oz/A rate. Foliar bleaching ranged from 11 to 35% with all rates above 0 oz/A. GA-16HO had significantly more bleaching when compared to GA-18RU, but was not significantly different from GA-06G. Brake® at 32 oz/A and 64 oz/A caused significant peanut stunting (17% and 44%, respectively). When averaged over variety, peanut yield was not significantly reduced at the 16 oz/A or 32 oz/A rate. However, significant yield losses of 33% occurred when Brake® was applied at 64 oz/A. Based upon these results, Brake® 1.2SL should not be recommended for use in peanut at rates greater than 16 oz/A.