

Effects of In-Furrow Fertilizer on Peanut Germination

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In-furrow applications of inoculants and select pesticides have grown in importance in peanut production in Georgia over the last decade. With the ease of application, industry has also begun to recommend in-furrow fertilizers to help with emergence and yield. Evaluations of Riser 7-17-3 (Loveland Products) applied in-furrow on emergence of peanut seed were conducted in a bare ground greenhouse in Tifton, Georgia in 2021. The soil type used in the greenhouse was a Tifton loamy sand. 'Georgia-07W' was seeded 5.1 cm deep at a rate of 19.7 seed/m in plots 0.6 m long with a row spacing of 0.3 m between plots. Fertilizer treatments consisted of 4.7 L/Ha, 9.3 L/Ha, 18.7 L/Ha, and 28.0 L/Ha with a total carrier volume of 65.4 L/Ha. A non-treated check was also tested. Treatments in each of the two trials were arranged in a randomized complete block design with 8 replications. Treatment response was evaluated based on stand counts over a 14-day period. Peanut seed emerged 1 to 4 days quicker and at a higher rate until 8 days after planting in the untreated check plots than plots treated with the fertilizer in-furrow at all rates. Final emergence at 14 days after planting was significantly greater for the untreated check compared 18.7-L and 28.0-L rates. Overall, in-furrow fertilizer delayed and/or reduced emergence in this bare ground greenhouse trial. Larger scale, replicated field trials should be conducted at several locations in the future to validate these findings.