

## **Augmentation of In-Furrow Insecticides with Superabsorbent Polymer to Improve Management of Spotted Wilt of Peanut**

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Spotted wilt of peanut (*Arachis hypogaea* L.) is a common disease that causes severe economic losses in peanut producing regions in the United States. The causal agent, *Tomato spotted wilt orthotospovirus*, is transmitted by species of thrips (Thysanoptera: Thripidae) with western flower thrips (*Frankliniella occidentalis*) and tobacco thrips (*F. fusca*) being of importance in the southeast. In 2017, field trials were conducted to determine if management of spotted wilt and subsequent productivity of peanut could be improved by applying a superabsorbent polymer (2.24 kg/ha) with standard in-furrow insecticides at the time of planting. To determine this, insecticides (phorate and imidacloprid) were individually applied with or without polymer across varieties susceptible (FloRun 157 or TUFRunner 511), moderately susceptible (Georgia 06G), and resistant (Sullivan and TifNV-High O/L) to spotted wilt. Untreated controls were included in all trials. The study utilized a randomized complete block design and was conducted at two locations in South Carolina and one Georgia location. Stunting of plants was significantly reduced (reduction of 8%,  $P < 0.05$ ) when susceptible varieties were treated with phorate and the polymer. Polymer-associated effects on thrips counts and damage, phytotoxicity and yield were not significant ( $P > 0.05$ ) across locations. While there was indication that use of superabsorbent polymer could be beneficial in some cases, further data is needed before its use could be recommended to peanut growers to improve management of spotted wilt.