Stand Delays Associated with In-Furrow Liquid Acephate Applications.

S. MALONE*, D.A. HERBERT, JR., Department of Entomology, Virginia Tech Tidewater Agricultural Research and Extension Center, Suffolk, VA 23437; M. BALOTA, Department of Plant Pathology, Physiology, and Weed Science, Virginia Tech Tidewater Agricultural Research and Extension Center, Suffolk, VA 23437; and D. JORDAN, Department of Crop Science, North Carolina State University, Raleigh, NC 27695.

In 2011, all thrips research plots conducted in Suffolk, VA, with acephate (Orthene 97, AMVAC Chemical Corporation) applied as a liquid in-furrow at planting at 12.4 and 16.5 oz/acre had significantly lower peanut seedling stand counts at 15-16 days after planting than other treatments. Other treatments included liquid in-furrow applied insecticides (i.e., imidacloprid [Admire Pro, Bayer CropScience] and cyantraniliprole [Verimark 20SC, DuPont Crop Protection]), granular in-furrow insecticide (i.e., phorate [Thimet, AMVAC Chemical Corporation]), and plots that had not received any insecticide by 15-16 days after planting. By 22-24 days after planting, Orthene liquid in-furrow stands “caught up” with the other treatments and did not suffer significant yield losses. Several growers also reported similar stand emergence problems in fields treated with in-furrow liquid Orthene. Slow seedling emergence could result in inadequate spray coverage/thrips plant protection in subsequent foliar insecticide applications (often applied around the late ground-cracking stage). When broadcast sprays are needed to manage heavy thrips populations (usually the case in Virginia), plants that are not emerged would not get protected by the foliar broadcast applications, and would therefore be at higher risk to thrips injury. Although it was not the case in our research plots in 2011, slow seedling emergence or reduced stands could result in yield reductions. Further research is planned to address this issue.