Multi-State Evaluation of a Seed Treatment and In-Furrow Granular Insecticide for Thrips and TSWV Management in Virginia and Runner-Type Peanut.

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Thrips transmitted Tomato spotted wilt virus (TSWV), comprise one of the major economically important pest–pathogen complexes throughout the eastern peanut belt in the United States. With the loss of aldicarb for use in peanut, there is a need to evaluate alternatives for both efficacy against thrips and the effects on incidence of TSWV. For the first time, an insecticide seed treatment, CruiserMaxx Peanut (thiamethoxam, Syngenta Crop Protection, Inc.) is now commercially available to peanut growers. Previous field studies by the co-authors have demonstrated that although CruiserMaxx Peanut does provide control of thrips, results are often variable. A multi-state project was initiated that includes cooperators in some of the major peanut growing states in the eastern US (VA, NC, SC, GA) with the objective of evaluating the efficacy of CruiserMaxx Peanut seed treatment on select Virginia and runner-type peanut cultivars for management of thrips and TSWV. Experiment treatments included: 1.) Untreated check; 2.) Thimet 20G at 5.5 oz/1000 row foot; 3.) CruiserMaxx Peanut at 0.318 mg ai/seed; 4.) CruiserMaxx Peanut at 0.318 mg ai/seed + Orthene 97 at 10 oz/acre. All insecticide treatments were evaluated on three Virginia and three runner-type cultivars with varying levels of TSWV resistance. Experimental design was a randomized complete block with 4 replications. Data collected included seedling stand counts, visual ratings of plant injury caused by direct thrips feeding on a scale of 0=no injury to 10=dead plant, numbers of thrips adults and immatures per 10 terminal leaflets per plot, number of TSWV hits per plot, and pod yields at harvest (TBD). Initial results showed that both CruiserMaxx Peanut and Thimet provided good levels of thrips control compared with the untreated check with lower thrips numbers and plant injury ratings. CruiserMaxx Peanut generally resulted in more plant injury compared with Thimet. Incidence of spotted wilt was reduced by both insecticides compared with the untreated check, and Thimet tended to have lower levels of spotted wilt compared with CruiserMaxx Peanut treatments. Thimet and CruiserMaxx plus Orthene insecticide treatments had significantly higher yields compared to the untreated check across most varieties and locations.