Assessment of ‘Tifguard’ Cultivar for Disease and Nematode Management of Peanut.

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‘Tifguard’ is a peanut cultivar that was released in 2007 and it is highly resistant to the peanut root-knot nematode (Meloidogyne arenaria). From the 2010 Peanut Rx disease risk index, Tifguard has been rated at 10, 15, and 10 points for resistance to tomato spotted wilt virus, leaf spot diseases, and stem rot, respectively. Based upon these ratings, Tifguard is thought among the most disease-resistant cultivars currently available to growers. Trials were conducted between 2007 and 2009 to assess the disease and nematode resistance of Tifguard compared to ‘Georgia Green’. The experimental design used in each trial was a randomized complete block design with four to six replications per study. Trials were conducted in fields naturally infested with M. arenaria in 2007 and 2009 on the Coastal Plain Experiment Station in Tift County, GA and in 2009 on a commercial field in Decatur Co., GA. In 2007, the average post-season root-gall rating for Georgia Green was 3.78 (0-10 scale) while Tifguard rated 0.07. In the same trial, Tifguard yielded 4891 lb/A while Georgia Green yielded 2762 lb/A. In the two trials conducted in Tifton in 2009, Tifguard with Thimet (5 lb/A) yielded 3430 lb/A and 2338 lb/A while Georgia Green yielded 2439 lb/A and 1726 lb/A, respectively. Post-season galls per 2 g of root tissue were 171.8 for the Georgia Green and 19.8 for Tifguard. In the commercial field study, the end of season root-gall rating and yield for Georgia Green were 3.0 and 2635 lb/A, respectively, and for Tifguard, 0.083 and 4925, respectively. In fungicide trials conducted in Tifton in 2008 and 2009, leaf spot and stem rot ratings were numerically lower for Tifguard than for Georgia Green. Tifguard is an appropriate cultivar to plant in the southeastern United States for the management of M. arenaria, tomato spotted wilt virus, leaf spot, and stem rot, and for its yield potential.