Resistance to Tomato Spotted Wilt Virus in Peanut Germplasm Recently Introduced into the U.S. (C08-holbrook112327-Poster)

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Abstract:

Tomato spotted wilt tospovirus (TSWV) is a relatively new pathogen in peanut production areas of the U.S. and has become the most important disease problem for many peanut growers. The objective of this research was to screen 837 peanut accessions for sources of resistance that could be used as parents in a breeding program to develop resistant cultivars. Preliminary field screening in 1998 and 1999 resulted in the selection of 68 accessions. These accessions were examined in replicated field studies in 2000 and 2001. TSWV was present in both years, but was more severe in 2001. Several accessions were identified that exhibited reduced TSWV ratings in comparison to the moderately resistant check cultivar, Georgia Green. Four of these accessions had greater pod yield than the check when disease pressure was severe (2001), and similar pod yield when disease pressure was moderate (2000). Based on their high disease resistance and high yield potential, they should be useful as parents for cultivar development.

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