

- a. techniques of artificial inoculation were checked up. The modified method of inoculation of stems cuttings with agar plugs containing fungus is the most acceptable.

**Identification of novel sources of resistance to Septoria leaf spot and heritability estimate of resistance in *Lycopersicon* spp. germplasm.**

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This study was conducted in order to identify novel sources of resistance to Septoria leaf spot in *Lycopersicon* spp. germplasm. Thirty-six genotypes were evaluated under natural (field) inoculum conditions in Brasília-DF, Brazil. The experiment was a randomized complete block design with four replications. The disease severity rating (DSR) was estimated using the following grading system: (1) no symptoms; (2) few lesions, non-coalescent, only in bottom leaves; (3) many, rarely coalescent lesions, only in bottom leaves; (4) many lesions, often coalescent, only in bottom leaves; (5) coalescent lesions in whole plant with up to 50% of the leaf area with lesions, and (6) coalescent lesions in whole plant with more than 50% of the leaf area with lesions. DSR showed significant statistical differences among genotypes. The overall average in the experiment was 3.70 with range from 1.0 to 6.0. The coefficient of environmental variation and coefficient of genetic variation were 14.08% and 38.54%, respectively. The *L. peruvianum* accessions CNPH 201 (DSR = 1.00), CNPH 785 (1.25), CNPH 786 (1.08), CNPH 787 (1.22), CNPH 1249 (1.44) are all novel sources of resistance. *L. hirsutum* PI 134417 reported as a source of resistance in previous studies was also highly resistant (1.08) under our experimental conditions. The broad sense heritabilities ( $H^2 = 96,77\%$ ) were estimated based upon average performance of the accessions. This  $H^2$  value indicated that introgression of Septoria leaf spot resistance into commercial cultivars would allow great genetic gains towards the development of highly resistance processing tomato lines.