

# 16<sup>th</sup> International Sclerotinia Workshop

August 25<sup>th</sup> and 26<sup>th</sup>, 2017  
Uberlândia - MG  
BRAZIL

ISBN 978-85-66836-17-2

SCREENING *Solanum* (section *Lycopersicon*) ACCESSIONS FOR RESISTANCE TO *Sclerotinia sclerotiorum*. V. Lourenço Jr.<sup>1</sup>; F. H. Ribeiro<sup>1</sup>; L. S. Boiteux<sup>1</sup>; M. E. N. Fonseca<sup>1</sup>.  
<sup>1</sup>Embrapa Hortaliças, Brasília, Distrito Federal, Brazil. E-mail: valdir.lourenco@embrapa.br

No information is available about sources of resistance to *Sclerotinia sclerotiorum* in tomato [*Solanum* (section *Lycopersicon*)] germplasm. In the present work, we evaluated the reaction of 100 *Solanum* (section *Lycopersicon*) accessions to this fungus. The experiments were conducted under growth chamber conditions at 18°C in a randomized block design with five repetitions. Accessions were inoculated on the stems with mycelial plugs of a *S. sclerotiorum* isolate obtained from processing tomato. The stem lesion length (SLL) was measured 48 hours after inoculation. Accessions displayed SLL values ranging from 1.8 to 31.3 mm. Eight accessions with the highest levels of resistance in the first experiment were selected for a second experiment. 'BRS Tospodoro' was used as a susceptible control based upon its response in first experiment. In the second experiment, five evaluations of the SLL values were performed and used to calculate the area under disease progress curve (AUDPC). It was found the lowest AUDPC values in the accessions 'CNPH 1121' (122.6) and 'CNPH 0402' (115.1). The highest AUDPC values were estimated for 'CNPH 0436' (444.6), 'CNPH 1122' (352.1), and 'BRS Tospodoro' (341.5). Therefore, there is experimental evidence that a subgroup of *Solanum* (section *Lycopersicon*) accessions might have useful levels of partial resistance to *S. sclerotiorum*.

**Keywords:** white mold; crop breeding; *Solanum lycopersicum* L.; *Solanum peruvianum* L.