

RESEARCH PAPER

# Evaluation of resistance for early blight caused by *Alternaria solani* (Ellis and Martin) Sorauer in tomato

S. M. YADAV<sup>1</sup>, VINEETA SINGH<sup>1</sup>, MAJOR SINGH<sup>2</sup>, LAXMAN PRASAD BALAI<sup>3</sup> AND RAMESH CHAND<sup>1</sup>

<sup>1</sup>Department of Mycology and Plant Pathology, Institute of Agricultural Sciences, Banaras Hindu University, VARANASI (U.P.) INDIA

<sup>2</sup>Division of Crop Improvement, Indian Institute of Vegetable Research, VARANASI (U.P.) INDIA

<sup>3</sup>ICAR, CAZRI, Krishi Vigyan Kendra, PALI (RAJASTHAN) INDIA

Email : [sanwar1785@gmail.com](mailto:sanwar1785@gmail.com)

**Article Info** : Received : 03.03.2017; Revised : 07.08.2017; Accepted : 04.09.2017

A trial was conducted during *Rabi* season 2011-2012 under field conditions for phenotyping of germplasm under natural conditions that have been developed for resistance against early blight of tomato caused by *Alternaria solani*. Field studies showed significant variation among all tested germplasm lines with respect to early blight disease assessment. Under field conditions the natural disease severity was scored on a five-point scale (0-5). The per cent disease index (PDI) and area under disease progress curve (AUDPC) value were calculated on the basis of data recorded. The mean AUDPC value in resistant (206 lines); moderately resistant (223 lines); moderately susceptible (129 lines) and susceptible (143 lines) tomato lines ranged between 102.00 to 447.25; 447.26 to 792.50; 792.51 to 1137.75 and 1137.76 to 1483.00, respectively.

**Key words** : *Alternaria solani*, Tomato, Natural inoculums, Phenotyping, Resistant, AUDPC

**How to cite this paper** : Yadav, S.M., Singh, Vineeta, Singh, Major, Balai, Laxman Prasad and Chand, Ramesh (2017). Evaluation of resistance for early blight caused by *Alternaria solani* (Ellis and Martin) Sorauer in tomato. *Asian J. Bio. Sci.*, 12 (2) : 87-99. DOI : 10.15740/HAS/AJBS/12.2/87-99.