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Field reaction of watermelon genotypes for resistance against Alternaria leaf blight disease under hot arid conditions of Rajasthan

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A lternaria leaf blight disease is a serious bottleneck in the production of watermelon in India. A field trial was carried out during summer season of 2012 to screen 19 watermelon genotypes (RW-177-3, RW-187-2, Charleston Gray, Mahbooby, IC-315313, IC- 325808, GP- 42, GP- 35, GP- 20, Thar Manak, AHW- 19, AHW- 65, Asahi Yamato, Sugar Baby, Arka Manik, Bikaner Local, Barmer Local, Churu Local, and Jaisalmer Local) for resistance against Alternaria leaf blight disease under field conditions with normal cultivation practices at Central Institute for Arid Horticulture, Bikaner. Disease severity in watermelon genotypes was recorded at maturity stage on the basis of per cent leaf area affected and field reaction due to Alternaria leaf blight was categorized by using 0-5 rating scale. Disease incidence was also calculated. Disease incidence and disease severity in 19 watermelon genotypes ranged from 5.0-50.00% and 5.75 to 21.50%, respectively. Out of them, none was found immune as well as resistant against Alternaria leaf blight. Only two varieties 'Asahi Yamato' and 'Arka Manik' were found moderately resistant against this disease with minimum disease severity of 5.75 and 7.80%, respectively. Fourteen genotypes were categorized as moderately susceptible and remaining 03 genotypes (GP- 20, RW-177-3 and GP-35) proved susceptible against this disease. During the study period, genotypes have not high disease severity due to unfavourable environmental conditions for the disease development. However, it is concluded that only two varieties 'Asahi Yamato' and 'Arka Manik' were found moderately resistant against Alternaria leaf blight disease of watermelon.

Biography

Sushil Maheshwari has completed his Ph.D. at the age of 28 years from C. S. Azad University of Agriculture & Technology, Kanpur (U.P.), India. He is Senior Scientist of Plant Pathology at Central Institute for Arid Horticulture (ICAR), Bikaner (Rajasthan), India, a premier Arid Horticulture institute/organization. He has published more than 30 papers in reputed journals.

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