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Identifying new molecular markers for resistance to barley powdery mildew

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Powdery mildew, caused by *B* f. sp. the windborne fungal pathogen, is one of the most economical important barley foliar diseases in harvest. Breeding for resistance is the important direction for breeders. Introducing and pyramiding new resistance genes to cultivars leads to reducing the impact disease to yield. Barley landraces are rich sources of genetic diversity, but still low operated. Disclosure this materials open new dimension for breeders. Barley landrace Bgh255-3-3, resistant to broad spectrum to B. graminis isolates was crossed with susceptible cultivar Manchurian. e main aim was to de ne new resistance locus. To achieve this goal; 100 molecular SSR markers was tested in bulk segregants analysis (BSA) method and high throughput diversity array technology (DArT) was applied to F2 population. Identifying new sources of resistance and new molecular markers associated to resistance genes provide possibility to use marker-assisted selection (MAS). is work has practical importance by broadening barley gene pool available to breeders.

Biography

Jerzy Henryk Czembor has completed his PhD in 1995 from Montana State University, Bozeman, USA. He has worked as a Professor of Agriculture (2012), Head of Laboratory of Applied Genetics (2008-2016) and Head of Department of Plant Breeding and Genetics (2011-2016). He is currently the Head of National Centre of Plant Genetic Resource (Polish GeneBank). He is the author of more than 200 scientifc papers and communications.

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