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Evaluation of durable blast resistance of Korean rice cultivars with nursery test

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Blast resistance of 29 rice cultivars breed as a durable resistance through the sequential planting from 2004 to 2006 was evaluated compared with the nursery screening over 14 test sites for 11 years in Korea. The Average Disease Severity (ADS) of 29 rice varieties against rice blast showed the resistance as 3.5 degree; however, the difference of disease severity among the varieties was from at least 1.9 up to 4.8. ADS of 12 cultivars were showed high resistant reaction like as less than 3.0 degree and 17 rice cultivars were showed moderate resistance. Among the 12 rice cultivars presented low ADS, 4 rice cultivars Ungwang, Pungmi 1, Sinunbong 1 and Dasan 1 were constantly appeared highly resistant reaction for those 11 years in all test sites and the other rice cultivars were showed various diseases severity among the test years and the test sites. 20 rice cultivars including Gopum vary variable among the test sites while the other rice cultivars were significantly different between the test years. These results indicated that durable resistance test against rice blast using sequential planting is a very efficient way to predict durability and nursery test for long period and a useful method to predict indirectly durable resistance of rice cultivars.

Biography

Jaehwan Roh has completed his PhD in 2002 from Chonbuk National University, South Korea. He is a Senior Scientist of National Institute of Crop Science (NICS), RDA, South Korea. He has published more than 20 papers in reputed journals.

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