

Blast disease intimidation towards rice cultivation: a review of pathogen and strategies to control

ABSTRACT

Rice blast is the most destructive disease to rice production globally. The objective of this review is to know the fundamentals of rice blast disease and to know the different methods for controlling blast disease. Rice blast disease has been recognised in more than 85 rice-producing countries worldwide. Currently, more than 100 R genes for blast resistance have been identified in rice. These resistance genes can be introgressed into a susceptible variety through marker-assisted backcrossing. Infested residues and seeds are the primary inoculum sources to spread the disease. Considering the importance of this disease, various management approaches have been practiced to control blast disease. The use of resistant varieties is an important measure to manage the disease. This review will provide use fulfacts about the pathogen and its epidemiology, assessment of resistance genes and effective control measure of rice blast disease through breeding and management. This update information will be helpful and guide to the research students and rice breeders to develop durable blast resistant rice varieties. So farmers will able to manage the blast disease in future.

Keyword: Magnaporthe oryzae; Distribution; Pathogen diversity; Disease control; Rice