

Category	: International Rice Research Conference
Select Theme	: Genetic improvement
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Keyword 1	: Biotic stress tolerance
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Keyword 3	: Pre-breeding
Title of Entry	: VARIETAL SCREENING AND INFECTION PROCESS OF FUSARIUM PROLIFERATUM IN RICE VARIETIES
Presenting author	: Shireen A. Jahan Quazi
Presenting author email	: shireenbri@yahoo.com
Co author 1	: Sariah Meon
Co author 2	: Zainal Abidin B.M. Ahmad
Affiliation presenting author	: Plant Pathology Division, Bangladesh Rice Research Institute, Gazipur-1700, Bangladesh
Affiliation 1	: Department of Plant Protection, Universiti Putra Malaysia, 43400 Serdang, Selangor, Malaysia
Affiliation 2	: Department of Plant Protection, Universiti Putra Malaysia, 43400 Serdang, Selangor, Malaysia
Select only one type of presentation	: 15 minute oral presentation
Abstract	: Bakanae is one of the major fungal diseases of rice. Bakanae is alarming in the affected rice growing areas as it is difficult to develop bakanae resistant varieties due to high genetic variation of the pathogen. For manage this notorious disease, it is essential to find out the infection process of the causal pathogen in rice plant. Therefore, screening was done first to categorize the susceptible and resistant variety and then infection process of the causal pathogen was studied. Selected nine varieties were screened against bakanae disease susceptibility. Using the disease severity scale of 0 – 5, three disease scores of 1, 3 and 5 were found to produce typical bakanae symptoms in the susceptible variety MR 211 after 7, 14 and 21 days of inoculation, respectively. Inoculated varieties were categorized as resistant, moderately resistant and susceptible irrespective of DSI. Among nine varieties, seven were identified as susceptible, one variety (G-27) as moderately resistant and one variety (BR3) as resistant. It was observed that initiation of infection by <i>F. proliferatum</i> started after 24 h of inoculation and infection became established in the susceptible variety MR 211 after 5 days, while colonization was observed after 7 days. Thus, approximately 5-7 days for infection establishment and colonization was found suitable for symptoms expression. This infection was established through the seed coat of the susceptible variety MR 211. This result will be helpful for identifying controlling method/s for bakanae disease management.

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