Poster

PERFORMANCE OF RICE LINES RESISTANT TO BACTERIAL LEAF BLIGHT

J. PONNAMPERUMA ARACHCHI AND G.A. JINADASA

Rice Research Station, Labuduwa, Akmeemana, Sri Lanka

ABSTRACT

Bacterial Leaf Blight (BLB) caused by *Xanthomonas oryzae* pv *oryzae* has become a major destructive rice disease in Asia, during the past decade causing severe damage to the rice crop. However, there is no chemical control against the disease. Therefore, the most effective and sustainable way to control the disease is using resistant varieties. Hence, the availability of donor parents having resistance genes for BLB is vital in developing resistant rice varieties. Thus, genetic materials received from International Rice Research Institute (IRRI) through International Rice Bacterial Blight Nursery (IRBBN)-2011 were screened to evaluate BLB during the *yala* 2011 season at Rice Research Station, Labuduwa. Sixty one entries of IRBBN received from IRRI were tested with two resistant checks, IR-BB 60 and Bg 359 (local resistant check) and susceptible check, TN 1. Artificial inoculation was done at the booting stage using a local virulent isolate extracted from the leaves showing typical bacterial blight lesions. In addition to the bacterial blight scores, data were also collected on other agronomic traits such as plant height, dates to flowering and phenotypic acceptability at maturity. Out of 61entries ten entries, namely, IR-BB 52, IR-BB 55, IR-BB 63, IR-BB 64, IR-BB 66, IR-71033-121-15-B, IR-76489-12-3-3-1-3, IR-83265-1-1-13-1-1-27-3-10-1-1-1, IR 83265-1-1-13-3-1-26-1-8-1-2-1 and IR-BB60, had better resistance to BLB than the local resistant check, Bg 359. Since the agronomic traits such as age, height and phenotypic acceptability at maturity are not in the extremes, these lines have potency to be used as parental sources. Investigations are continuing with respect to yield data.