Comparison of yield performance of three aromatic rice genotypes in five locations in Matara district

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Three aromatic rice genotypes (*Oryza sataiva* L) with 2 non-aromatic controls, RU 102 and BG 379/2 were planted in 1999 *Yala* season in Matara district, under agro ecological zone of WL_2. Tested two aromatics, 39/1 and 22/3 were mutant developed by University of Ruhuna and 28 ING was an introduction of IRRI. Genotypes were tested in five locations of Kotapola, Mapalana, Komangoda, Thihagoda and Gombaddala in Matara district using Randomized Complete Block Design with three replicates. Data collection was done from each location for quality and quantity measures. These data were analyzed to compare the performance of five genotypes in different environments using modified ANOVA model. Variety into location interaction was also studied.

One of the aromatic genotypes and two controls showed special adaptability for these five sites. However, genotypes 39/1 and 28 ING showed general adaptability for some locations. Therefore it is suggested that among the tested genotypes, 39/1 and 28 ING could be recommended for Kotapola, Mapalana and Gombaddala while the genotype 22/3 could be recommended for all five locations studied. However, tested two mutants; 39/1 and 22/3 recorded lower yield (2141.5 kg/ha and 2653.3 kg/ha respectively) than control varieties; BG 379/2 and RU 102 (3348.3 kg/ha and 3748.2 kg/ha respectively). Aromatic genotype 28 ING showed the highest aroma at the five sites. Genotypes 22/3 and 39/1 showed moderate and slight to moderate aroma respectively. The tested mutants showed good promise in the agro ecological zone of WL_2. Eventhough, yield is low in aromatic rice compared to non-aromatic rice, prices are more than double and therefore farmers can get better income by growing aromatic rice.

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