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Selecting suitable traditional rice varieties to Galle district through farmer, consumer preference

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Abstract

Farmers' interest to cultivate traditional rice varieties in Low Country Wet Zone (LCWZ) was increasing with high price, low input demand and other nutritional attributes. Yet most of the traditional varieties grown by the farmers are not adaptable for the LCWZ. This study was aimed to identify the best performing traditional rice varieties in Galle district base on yield, agronomic characters and preference of the farmers and consumers. Selected eleven traditional rice varieties (*Suwandel*, *Dhanahala*, *Beheth Heeneti*, *Pachchaperumal*, *Rathdel*, *Ranthembiliel*, *Kuruluthuda*, *Kahata Wee*, *Herath Banda*, *Gonabaru*, *Kahawanu*) cultivated by the farmers in Galle District and two improved varieties (Ld 368 and Bw 372) were evaluated at Rice Research Station, Labuduwa in Randomized Complete Block Design with two replicates during 2017/18 *Maha* season. At the maturity stage a field day was conducted with the participation of farmers, officers of Department of Agriculture and University staff. Varieties were evaluated by voting based on visual observations. Based on the performances at Research level, five selected traditional varieties and two improved lines were tested as observational trials at 30 farmer fields in Galle district during 2018 *Yala*. Same varieties were tested in 5 farmer fields in Randomized Complete Block Design during 2018/19 *Maha* season. Ld 368 was the shortest variety, *Kuruluthuda*, Bw 372 and *Rathal* were not significantly different from Ld 368. *Kahata Wee* recorded the highest panicle length and flag leaf and leaf width. When the seed per panicle is considered, panicle weight, and number of filled grains per plant, higher values were recorded by the improved variety Ld 368 with low shattering. Bw 372, *Kuruluthuda*, *Herath Banda*, *Raththembilal* also recorded lower shattering while *Beheth heenati*, *Kahatawee*, *Suwandal* and *Dahanala* recorded higher shattering percentage indicating the inferior agronomy of traditional varieties. *Kuruluthuda*, *Pachchaperumal*, and Bw 372 also recorded higher values for filled seeds per plant. Ld 368 was the highest yield recorder, *Kuruluthudu* and *Kahawanu* also recorded similar yields. According to participatory evaluation ranks, *Kahawanu*, *Kuruluthuda* and *Suwandal* were preferred by the evaluators. Improved varieties Ld 368 and Bw 372 performed better with higher yield in farmer field testing. Out of traditional varieties *Gonabaru* recorded better yields in 3 locations, *Kuruluthuda*, *Rathal* and *Suwandal* also recorded more than 3t/ha in 3 locations. According to farmer preference and yield performance *Gonabaruru* and *Kuruluthuda* were most preferred and followed by *Suwandal* and *Rathal*.

Keywords: Consumer preference, Farmer preference, Low Country Wet Zone, Traditional rice varieties

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