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PERFORMANCE OF SIX NEW IMPROVED RICE (*Oryza sativa* L.) VARIETIES IN THE BATTICALOA DISTRICT

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ABSTRACT

A trial was conducted to evaluate the agronomic performances of six test varieties of rice viz. Bg 02.465, Bg 03.1451, At 676, Bw 03.1063, At 307, and At 303 along with the check varieties of Bg 305, and Bg 300 of 3 months age group during *Yala* 2007 at the Agronomy farm of the Eastern University, Sri Lanka. The treatments were arranged in a Randomized Complete Block Design (RCBD) with four replications. The crop was raised and managed in accordance with the guidelines given for a National Co-ordinated Rice Varietal Trial (NCRVT) by Rice Research and Development Institute (RRDI), Sri Lanka. Germination percentage, number of tillers per plant, days to 50% heading, days to 85% maturity, lodging and the yield were recorded. Collected data were analyzed statistically to determine the treatment effects if any. Varieties tested in this trial showed significant differences in the selected agronomic characteristics.

The test variety 'Bw 03.1063' showed the high number of tillers (4.5) per plant. It was higher than the standard checks. Varieties 'At 676' and 'At 307' had taken significantly ($p < 0.05$) less number of days (81 days) to reach 50% heading and varieties 'Bg 02.465' and 'At 676' had taken significantly ($p < 0.05$) short duration (106 days) to reach 85% maturity. The test varieties did not lodge during the experiment and there were no significant differences observed in the germination percentage of the varieties. High yield ($1,794 \text{ kg ha}^{-1}$) was obtained from the test variety 'Bw 03.1063' followed by 'At 676' ($1697.5 \text{ kg ha}^{-1}$) and it was significantly higher than the check variety 'Bg 305' (1417 kg ha^{-1}). In the present study, it was found that test variety 'At 676' could be considered as suitable variety for the cultivation in the Batticaloa district during *Yala* season. Because, it produced higher number of tillers, matured early and produced higher yield than the check varieties. Though, further study is needed in *Maha* season and also under farmers' field to ensure its potentiality.

Key words: Test varieties, Check varieties, NCRVT, 50% heading, 85% maturity, Yield