Abstract No: 279 (Poster) ***Plant Science and Forestry***

FFECT OF *AESCHYNOMENE INDICA*, *FIMBRISTYLIS MILIACEA* AND *CYPRUS IRIA* ON GROWTH AND YIELD OF RICE (ORYZA SATIVA) VARIETY BG 357

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Aeschynomene indica (Fabaceae) (Sinhala: 'Diyasiyambala') is a nitrogen-fixing weed commonly found in rice fields. This study was undertaken to determine the effect of *A. indica* on growth and yield of rice variety BG 357 in comparison to two non-nitrogen fixing weeds *Fimbristylis miliacea* (Sinhala: 'Kudamatta') and *Cyperus iria* (Sinhala: 'Thunassa').

Observations were made on the growth and yield of the potted rice variety BG 357 grown with no weeds and with *A. indica*, *F. miliacea* and *C. iria* separately. Shoot length, number of panicles per plant, number of seeds per panicle and weight of hundred seeds were measured. The experiment was conducted in a Completely Randomized Design (CRD) with three replicates. Statistical analysis was carried out using the Student Newman-Kuells Means Separation Test.

BG 357 plants grown with *A. indica* (1:1) had 15 % higher shoot length, 27 % more number of tillers per plant, 10 % number of panicles per plant, 9 % more number of seeds per panicle and 10 % higher seed weight than those grown with no weeds. Furthermore, BG 357 grown with other weed plants showed negative effects of weeds on growth and yield. Hence, it can be concluded that N-fixing weeds could be integrated into rice ecosystems for better productivity with less fertilizer inputs as rice is a nitrogen-demanding crop.