DIFFERENTIAL PERFORMANCE OF RICE VARIETIES IN RELATION TO TRACT ENVIRONMENTS IN THE KIRALAKELLE DRAINAGE AND RECLAMATION SCHEME RESULTS OF — YALA SEASON — 1977

Balasuriya, I. Joseph, K. D. S. M. and Rodrigo, M. C.
(Field Trials Division, Department of Agriculture, Peradeniya)

The Kiralakelle Drainage and Reclamation Scheme is located within the Histosol Soil Region of the Low-country, Wet Zone. It is designed to increase rice production on low-lying, poorly drained, flood prone, rice lands by improvements to the physical environment

Previous work by Thenabadu et al (2 & 3), Wickremasinghe and Balasuriya (4) showed that new improved rice varieties in the long, medium and short age groups had very considerable potential for increasing yields on reclaimed lands

above + 1'MSL . This investigation was carried out to develop specific rice technology suited to individual Drainage and Reclamation Schemes.

On two environmentally diverse tracts, improved medium aged varieties, i. e. Bg 11-11, BW 78, H 4, A 15-100, showed significant differences in performance between tracts. On better drained Gleyic Alluvial soils BW 78 (122 days) performed best whereas on Half Bog soils Bg 11-11 (135 days) significantly out-yielded all other varieties. Therefore, to fully exploit the potential of high yielding varieties at Kiralakele Scheme the choice of varieties should be related to tract environments.

The relatively poorly drained Half Bog soils gave higher yields than better drained Gleyic Alluvial soils. It was evident that increased productivity depends not only on improved drainage but also on selecting high yielding varieties with specific adaptability to tract micro-environments. To fully exploit Gleyic Alluvial soils in this scheme supplementary irrigation is required