YIELD, YIELD COMPONENTS AND SEEDLING SURVIVAL OF RICE GENOTYPES UNDER THE ADVERSE SOIL CONDITIONS OF THE NILWALA DEVELOPMENT SCHEMES

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Seventeen rice genotypes were evaluated over two seasons for seedling survival and yield characteristics in the sector 24 of the Nilwala Development Scheme where increased iron toxicity and associated problems have been recorded recently. BG 379-2, the most widely cultivated variety in the area served as the control.

In Yala 1987 a strip plot design was used to test two planting methods viz. row seeding and transplanting (as main plots) against the genotypes (as sub plots). The yield differences between two planting methods and their interaction with genotypes were not significant. Hence in Maha 1987/88 the genotypes were transplanted in a randomized complete block design.

In Yala 1987 several varieties significantly out yielded the control. BW 272-3, BW 297-2 and BW 272-8 recorded 3.14, 2.96 and 2.68 t/ha grain yield respectively against 1.44 t/ha in BG 379-2. In the Maha season BW 272-1 recorded the highest yield of 5.36 t/ha against 4.85 t/ha in BG 379-2. The differences in all the yield components among genotypes were significant in both seasons.

Although the seedling survival percentages of AT 69-5 and AT 69-2 in toxic soils were the highest, their yields were low, partly due to neck blast. These preliminary results indicate tne high potential for the increase of rice yields in these soils by the use of proper cultivars and cultural practices. The experiments are being continued with the inclusion of more promising genotypes.

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