SELECTION CRITERIA FOR DROUGHT TOLERANCE THROUGH DROUGHT INTENSITY INDEX AND DROUGHT TOLERANCE EFFICIENCY IN RICE

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Abstract: Selection for rice varieties having high yield potential coupled with drought tolerance should be the strategy for a successful breeding programme. Sixty F_3 segregating lines derived from cross between MTU1010 and IR86931-B-6 were evaluated for drought intensity index (DII) and drought tolerance efficiency (DTE) under irrigated, moisture stress and direct sown conditions. The use of DII and DTE is likely to be most beneficial in selecting parents for development of drought tolerance population. The mean yield per plant was 22.71g in irrigated, 40.58g in direct sowing and 9.31 g in moisture stress condition which resulted in drought intensity index 0.6 in irrigated and in direct sown condition 0.78 are recorded and average DTE recorded in both condition 52.2% (irrigated) and 26% (direct sown).

Keywords: DII, Drought tolerance efficiency, Rice, Selection criteria

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