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Poster

A PROMISING RICE LINE BG 96-741 FOR SUBMERGENCE PRONE AREAS

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ABSTRACT

The major portion of Sri Lanka's low-lying lands is in a belt along the Western coast from Wennappuwa to Dondra. Approximately 28,000 ha of low lying lands are situated in the Low Country Wet Zone (LCWZ) of Sri Lanka. These lands are the low lying floods plains of streams, minor rivers, major rivers and low lying lands bordering lagoons, lakes and marshes. The coastal flood plain still remains unproductive because of impeded drainage and submergence which have created unfavourable soil condition for rice cultivation. Paddy lands in some areas of Kalutara, Galle, Rathnapura, Colombo, Gampaha and Matara districts frequently experienced with floods as well as flash floods. However, flash flooding can cover the entire plant for prolonged periods, and most rice cultivars die within 7 days of complete submergence. Therefore, thousands of acres of paddy lands are abandoned in the flood prone areas. As LCWZ is the buffer zone for rice production in the country and need to be cultivated to ensure the food security, one of the most promising solutions is to is to develop high-yielding verities that are submergence tolerant and that are more likely to be rapidly adopted by the farmers in the target regions. In this experiment 6 rice varieties; Swarna sub I, Samba mashuri sub I, IR 64, IRRI 119, Bw 364 and Bg 96-741 were evaluated in the field at Agriculture Research Station, Bentota. Pre-germinated seeds were sown in to the 6x3 m^2 plots in a randomized complete block design with three replicates. Fourteen days old seedlings were submerged for 0.5 m depth for the period of 10 days. After 10 days period, survival percentage of plants were taken. Tested two local varieties have shown the higher level (Bg 96-741 was 75% and BW 364 was 65%) of survival after receding the floods while sub I in introgressed exotic mega varieties showed lower survival percentage (1%).