Mechanized SRI (System of Rice Intensification) for Easy Practice and Large Scale Adoption

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ABSTRACT

India is one of the world's largest producers of white rice and brown rice, accounting for 20% of all world rice production. Rice can be cultivated by different methods based on the type of region. But in India, the traditional methods are still in use for harvesting rice. A traditional method includes nursery preparation, field preparation, transplanting and frequent irrigation. Though the improved methods were emerged for high productivity like System of Rice Intensification, Alternate Wetting and Drying etc., and were appreciated by the small farmer, operational difficulties involved(young single plant transplanting & weeding) in adopting true such technologies made them non practiced & practical. The attempts were made to improvise these improved technologies such as SRI and AWD with Mechanized rice cultivation, so as to reap the benefits of improved technologies with reduced drudgery (manual labour involvement). Mechanized transplanting with young(12-14days), minimum number (two- three) seedling per hill and maximum (19 cm) intra row space adjustment to suffice number matrix of hills per square metre is adjusted. The irrigation scheduling was manipulated for creating more aerobic soil conditions that are beneficial for the rice crop up to milky stage. The yields were improved up to 375Kg/acre with 25% less water requirement was recorded in farmers' field. More over the requirement of manual labour was reduced by 50percent over conventional method of manual transplanting.