

# Influence of different age seedlings mat type characteristics at different speed of self-propelled 8-row rice transplanter in district of Samastipur, Bihar, India

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■ **ABSTRACT** : In south-east Asian countries, paddy is the most important cereal crop and staple food. In India, it is grown on an area of more than 41 million ha with a production of about 111 million tones of paddy. In India establishment of rice basically depends on the availability of moisture, climatic condition, age of the variety, availability of inputs and human labour. Labour shortage and labour costing is one of the major concerns to failure of scheduled transplanting of rice. To overcome, there is a need of mechanization in the field of rice cultivation by using rice transplanter as major tool in this process. The impact of different age seedlings related to paddy cultivation and its influence was studied in the farm of Dr. Rajendra Prasad Central Agriculture University for sustainable farming in Samastipur district. Three different age seedlings were sampled and cultivated along with all necessary cultivation requirements. The survivability and quality efficiency was measured and comparative studies were done. A strong positive correlation between seedlings age and production efficiency was observed. This practice appears useful as the results indicate high production efficiency with 26 days age seedlings transplanted with the help of self propelled 8-row rice transplanter. It can be accomplished by timely updating and application of improved technology, for instance, to uphold the quality and nutritional values of rice. Transplanting mat type seedling is becoming more popular due to its superior performance and reduced labour requirement (50 man-h/ha).

■ **KEY WORDS** : Self-propelled rice transplanter, Different age seedlings, Rice cultivation, Paddy transplantation

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