

## Performance evaluation of sugar cane cutter planter using different parameters

■ SUMIT KUMAR, SURENDRA PAL, SURYAKANTA KHANDAI, MANISH KUMAR AND ASHOK TRIPATHI

Received : 28.04.2017; Revised : 01.08.2017; Accepted : 15.08.2017

See end of the Paper for authors' affiliation

Correspondence to :

**SUMIT KUMAR**

Department of Farm Machinery and Power Engineering, Sam Higginbottom University of Agriculture, Technology and Sciences, ALLAHABAD (U.P.) INDIA  
Email : [kumar.sumit0024@gmail.com](mailto:kumar.sumit0024@gmail.com)

■ **ABSTRACT** : Sugarcane planting is a very labour intensive job and involves considerable human drudgery. Planting creates the foundation for a crop and plays a crucial role in its growth and yield. Study was undertaken to evaluate the performance of two different models of sugarcane planters. One model was Khalsa PE-630 type cutter planter manufactured by M/S Punjab engineers, Meerut and the other was ITI make cutter planter designed by Indian Institute of Sugarcane Research, and manufactured by Indian Telephone Industries, Rai Bareilly. In addition to this two different experimental test set ups based on different principles were developed for measuring cutting forces for sugarcane cutting. It was observed that field capacity of Khalsa make planter was 0.20 ha/ hr with the field efficiency of 87.50% at effective working width of 1.34 m and a forward speed of 2.54 km / hr at 2<sup>nd</sup> low gear. A set length of 32.96 cm with average.

■ **KEY WORDS** : Sugarcane, Cutter planter

■ **HOW TO CITE THIS PAPER** : Kumar, Sumit, Pal, Surendra, Khandai, Suryakanta, Kumar, Manish and Tripathi, Ashok (2017). Performance evaluation of sugar cane cutter planter using different parameters. *Internat. J. Agric. Engg.*, **10**(2) : 367-373, DOI: 10.15740/HAS/IJAE/10.2/367-373.