

## Performance evaluation of machinery for sugarcane handling and trash management

■ **S. MUKESH AND VIJAYA RANI**

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See end of the Paper for authors' affiliation

Correspondence to :

**S. MUKESH**

Department of Farm Machinery and Power Engineering, C.C.S. Haryana Agricultural University, HISAR (HARYANA) INDIA

■ **ABSTRACT :** The sugarcane cultivation and sugar industry in India plays a vital role towards socio-economic development in the rural areas by mobilizing rural resources and generating higher income and employment opportunities. About 7.5 per cent of the rural population, covering about 45 million sugarcane farmers, their dependents and a large number of agricultural labour are involved in sugarcane cultivation, harvesting and ancillary activities. There are about nine States in India where sugarcane is grown on a large extent of area. There are a number of varieties that are grown in India depending on the suitability of the soil. The area, output and yield and sugarcane cultivation is subjected to fluctuate in response to policies of the government and also conditions of cultivation. Sugarcane is a labour intensive crop and shortage of labour and unavailability of labour at reasonable rate is the major concern in sugarcane cultivation. To combat the paucity of labour, mechanized sugarcane cultivation is the only option to carry out all the operations in time. The next phase of revolution in Indian agriculture is bound to come through the use of improved agricultural machinery suiting to local conditions. The performance evaluation of sugarcane handling equipments like tractor front mounted sugarcane loader, tractor operated sugarcane billets collector cum unloader and tractor PTO operated sugarcane trash shredder were conducted at Farm Machinery Testing Centre, CCSHAU, Hisar and the performance has been found to be satisfactory. Concerted efforts are required to formulate a strategy for mechanising sugarcane production in India with the sole aim of increasing production and productivity per unit time, area and input at reduced cost of unit operation to survive in the highly competitive international sugar market.

■ **KEY WORDS :** Machinery, Sugarcane handling, Trash management

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