

PERFORMANCE EVALUATION STUDIES ON TAMARIND DEHULLER-CUM-DESEEDER

Amit Kumar Sinha¹, S. Patel² and Ajay Verma²

¹*Bhartiya College of Agricultural Engineering, Durg (C.G.)*

²*Faculty of Agricultural Engineering, IGKV Raipur (C.G.)*

Abstract: The performance of machine was evaluated at 3 different rings clearance i.e. 3, 4, & 5 cm for dehulling and 3, 3.5 & 4mm machine clearance for deseeding. Similarly different feed rate was taken for dehulling and deseeding operations i.e., 4, 5 & 6 and 1, 1.5 & 2 kg/min respectively. The result from the above process show that for dehulling operation the optimum ring clearance and feed rate was 4 cm and 5 kg/min respectively, as the output obtained from them was more than the other two parameters i.e. 239.97 kg/h and 251.94 kg/h for before sun drying and after sun dried tamarind fruits. Similarly 3.5 mm machine clearance and 1.5 kg/min feed rate was optimum for deseeding with output of 48.6 kg/h and 52.02 kg/h before and after sun drying respectively. Hence we conclude that for dehulling the optimum rings clearance and feed rate is 4 cm and 5 kg/h with dehulling efficiency of 79.99 % before sun drying and 83.98 % after sun drying and for deseeding machine clearance of 3.5 mm and feed rate of 1.5 kg/min is best with deseeding efficiency 54.23 % & 57.8 % for before sun drying and after sun drying respectively.

Keywords: Dehuller-cum-deseeder, tamarind

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