

Optimization of crop-machine parameter on the performance of *Kodo* pearler

DEWENDRA KUMAR, R.K. NAIK, P.K. NISHAD AND P.R. SAHU

Received : 18.07.2017; Revised : 27.08.2017; Accepted : 13.09.2017

See end of the Paper for authors' affiliation

Correspondence to :

DEWENDRA KUMAR
Department of Agricultural
Processing and Food
Engineering, S.V. College of
Agricultural Engineering and
Technology and Research
Station, Indira Gandhi Krishi
Vishwavidyalaya, RAIPUR (C.G.)
INDIA
Email : er.dewendra24@gmail.com

■ **ABSTRACT** : *Kodo* millet (*Paspalum scrobiculatum* L) is a staple food of some tribal's of India especially in the states of Chhattisgarh and Madhya Pradesh. Traditionally, de-husking was done by hand pounding using stone mortar and wooden pestle with metal ring on the tip or by the use of *Kodo* pearler. The performance was optimize and evaluated at different treatments of *Kodo* grins and cylinder speeds with factorial SPD. It was observed that cylinder speed and treatment have a significant effect on the performance indices. The results show that the milling recovery and capacity of machine increased as the cylinder speed increase. The milling recovery and capacity of machine was highest (62.62 %) and (17.65 kg-h⁻¹) for 24 h soaked grins at 22.83 m-s⁻¹ cylinder speed. The head rice per cent was found to be highest (93 %) for 24 h soaked grins at cylinder speed 11.57 m-s⁻¹. The percentage of broken rice decreased with the increase soaking time and decrease cylinder speed.

■ **KEY WORDS** : *Kodo* pearler, Optimization, Treatments, Cylinder speed, Milling recovery

■ **HOW TO CITE THIS PAPER** : Kumar, Dewendra, Naik, R.K., Nishad, P.K. and Sahu, P.R. (2017). Optimization of crop-machine parameter on the performance of *Kodo* pearler. *Internat. J. Agric. Engg.*, 10(2) : 545-549, DOI: 10.15740/HAS/IJAE/10.2/545-549.