

Click www.researchjournal.co.in/online/subdetail.html to purchase.

Studies on measurement of deflection characteristics in agricultural disc

VIJAY KUMAR, PRAMOD KUMAR AND R.N. PATERIYA

Received : 23.06.2015; Revised : 15.02.2016; Accepted : 09.03.2016

See end of the Paper for authors' affiliation

Correspondence to :

VIJAY KUMAR

Department of Farm Machinery and Power Engineering, College of Technology, PANTNAGAR (UTTARAKHAND) INDIA
Email : kumarvijaygour@gmail.com

■ **ABSTRACT** : The preliminary study is required for measurement of deflection in agricultural discs to check a fatigue life of agricultural discs and to know whether or not an agricultural disc is fit to be used in the field. The discs are used as soil engaging component in different agricultural machinery. Being the soil engaging component, discs wear out faster than other components and they have to be replaced very often. To ensure interchangeability, necessary dimensions, the method of testing and prescribed limits for deflection characteristics is major concern. A minimum of 3 agricultural discs chosen out of 10 for ensuring the deflection characteristics and a series of test was conducted on universal testing machine to evaluate deflection and result was compared with computational simulation software ANSYS workbench.

■ **KEY WORDS** : Agricultural Disc, Deflection, Universal testing machine, ANSYS workbench

■ **HOW TO CITE THIS PAPER** : Kumar, Vijay, Kumar, Pramod and Pateriya, R.N. (2016). Studies on measurement of deflection characteristics in agricultural disc. *Internat. J. Agric. Engg.*, **9**(1) : 32-34.