DESIGN AND DEVELOPMENT OF INCLINED PLATE SEED METERING MECHANISM FOR CHICKPEA INTENSIFICATION

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Received-02.08.2019. Revised-21.08.2019

Abstract: Physical properties of chickpea i.e. average aspect ratio, surface area, bulk density, true density, moisture content and porosity of chickpea were observed 75.54 %, 157.379 mm², 709.55 kg/m³, 875.50 kg/m³, 19.81 % and 18.62 % respectively. Mean spacing was found more accurate in 45° inclination of seed box form horizontal which was 20.03 cm. and average field efficiency and time required for one ha was 63.63% and 0.44 h/ha respectively.

Keywords: Planter, Chickpea, Inclined

REFERENCES

Anonymous (1991). Seeders and planters, Agricultural Machinery and Data Handbook, Economics for Social Commissioning for Asia & Pacific, Regional Network for Agricultural Machinery.

Dubey, A. K. (2003). Design of sowing machine. Teaching material for training on computer aided design and design methodology for agricultural machinery. Technical bulletin no CIAE/AMD/2003/296: 92-102.

Garg, I. K., Dixit, A., Pannu, J. S. and Dogra, B. (2002). Development and evaluation of multi-crop planter. XXXVI Annual Convention, ISAE, Jan. 28-

30, 2002, Souvenir, Agric. & Food Engg. Deptt,. IIT, Kharagpur.

Joshi, Jitendra and Shrivastava, Atul Kumar (2017). Modification And Performance Evaluation Of Tractor DrawnRaised Bed Seed Drill Under Vertisol, International Journal of Agricultural Vol. 7, Issue 3, 385-394.

Mohsenin, N.N. (1986). Physical properties of plant and animal materials. New York: Gordon and Breach Science Publisher.

Ningthoujam, B., Singh, V. and Nilatkar, D.K. (2016). Design and development of wooden plate metering device for onion bulb planter. International Journal of Applied Sci. and Engg., 4(2): 111-121.

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