

RESEARCH PAPER

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Moisture dependent physical properties of bhatt (Black soybean)

■ KAUSHAL KUMAR^{1*}, S.K. GARG² AND D.K. GUPTA³

¹Department of Agro Processing and Rural Engineering, Mahamaya College of Agricultural Engineering and Technology (N.D.U.A.T.), Akabarpur, AMBEDKARNAGAR (U.P.) INDIA

²College of Agriculture (J.N.K.V.V.), GANJBASODA (M.P.) INDIA

³Department of PHP & FE, G.B. Pant University of Agriculture and Technology, Pantnagar, U.S. NAGAR (UTTARAKHAND) INDIA

Email : kkumar_nduat@rediffmail.com

*Author for Correspondence

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SUMMARY :

Moisture dependent physical properties of Bhatt (Black soybean) were evaluated in the moisture range from 8.67 to 25 per cent (d.b). The moisture content had significant effect on the physical properties of Bhatt. The length, width and thickness varied in the range of 4.87 to 7.8 mm, 3.12 to 5.5 and 2.34 to 4.02mm at moisture content of 8.67 per cent (db) to 25.00 per cent (db). The geometric mean diameter, sphericity, surface area and volume of the grain were in the range of 4.565 to 5.011mm, 0.704 to 0.723, 65.105 to 75.116mm² and 10.847 to 12.515mm³, respectively. Thousand Kernel weight varied from 59.89 to 66.84 g along with the associated standard deviation in the range of 1.562 to 7.739 at moisture content range of 8.67 per cent to 25.00 per cent (db). The bulk density and true density decreased with increase in the moisture content and were in the ranges of 646.48 to 695.35 kg/m³ and 1169.60 to 1193.40 kg/m³ along with associated standard deviation in the range of 1.300 to 2.479 for bulk density and 2.157 to 6.730 for true density, respectively. The value of porosity was found 0.417 at 8.67 per cent moisture content and 0.445 at 25.00 per cent moisture content.

KEY WORDS : Physical properties, Bhatt, Black soybean

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