

Effect of Moisture Content on Physical Properties of Finger Millet(*Eleusine Coracana*)

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ABSTRACT

Physical properties of finger millet are necessary for the design of machines and analysis of the behaviour of the product during agricultural process operations such as handling, planting, harvesting, threshing, cleaning, processing, transporting and storage of crop. Some physical properties of finger millet (*Eleusine coracana*) of *saptagiri* variety were determined at the moisture contents of 10, 13 and 16 % (w.b). The variation of physical dimensions surface area, volume, mass of 1000 grains, bulk density, true density, angle of repose, static coefficient of friction and terminal velocity were measured. The values of physical properties length, width, thickness, geometric mean diameter, sphericity, surface area, volume, thousand grain weight, porosity, angle of repose, static coefficient of friction and terminal velocity were increased linearly as moisture content increased from 10 to 16 % w.b. Bulk density and true density were decreased as moisture content increased from 10 to 16 % w.b.

Key words: Angle of repose, Finger millet (Eleusine coracana), Physical properties, True density.