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## Effect of variety and moisture content on some engineering properties of paddy rice

### Abstract

The effect of variety and moisture content on some engineering properties of five improved paddy rice varieties was investigated within moisture content range of 10% and 30% dry basis (d.b.). Increase in moisture content was found to increase the linear dimensions, mass of 100 seeds, surface area, apparent volume, true volume, arithmetic mean diameter, effective geometric diameter, sphericity, angle of repose, porosity and static coefficient of friction while bulk density and true density decreased with increase in moisture content. Static coefficient of friction was found to increase as moisture content increased from 0.34–0.46, 0.35–0.59, 0.36–0.46 and 0.34–0.45, respectively on plywood, galvanized steel, mild steel and glass structural surfaces. The highest static coefficient was found on galvanized steel. Angle of repose was found to increase as moisture content increases. The study concludes that variety and changes in moisture content significantly ( $P < 0.05$ ) affected most of the engineering properties determined.



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