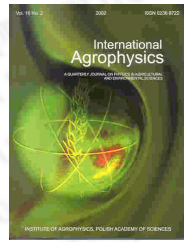


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Some physical properties of date fruit (cv. Dairi)

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abstract Most of the date fruit processing methods employed are still traditional. It becomes imperative to characterize the fruits with a view to understand their physical properties that may affect the design of machines to handle their processing. Objective of the present study are to present basic principles of physical properties of date fruit (cv. Dairi) in order to facilitate the design of some machines for its processing. Dry-basis moisture content of date fruit was found to be 10.45% (10.88% for pitted dates and 9.88% for their pits). Other results showed that linear dimensions varied from 29.8 mm in length, 15.7 to 20.2 mm in width, and 15 to 19.7 mm in thickness. Mean weight and volume of fruit were measured as 5.30 g and 5.49 cm³, respectively. The cross-sectional areas along length (PL), width (PW) and thickness (PT) were 262.71, 49 mm², respectively. The fruit density and pitted fruit density were measured as 0.97 and 0.95 g/cm³, respectively.