Title	Determination of Dimension and Area Properties of Date (*Behri*) by Image Analysis
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Abstract

Physical properties of the date fruit are necessary to determine equipment used in activities such as transportation, processing and grading. In this study, some physical properties of dates (*Behri*) were evaluated. Dimension and area properties were found by means of image analysis. Values for the average length, and intermediate and minor diameters were obtained as 30.14 mm, 16.5 and 13.4 mm, respectively. The mean mass, volume and cross section area in length, cross section area in width were 4.39 g, 4339.82 mm^3, 211.6 and 387.14 mm^2, respectively. Volume and length, in the order of effectiveness, significantly affect the mass. Linear models with a stepwise variable for describing the mass of dates were investigated. The frequency of the distribution of dates by number of each size in the sample were estimated. Correlations between mass, volume, dimensions and area were found using standard regression techniques. Mass was estimated with single a variable of volume with a high coefficient of correlation as: $0.735 + 1.622 = M$, $r = 0.94$