Developing Empirical Model for Non-Destructive Determination of Maturity and Ripeness of Prime Quality Durian with Ultra Sonic

Durian (Durio zibethinus Mun) is one of the exotic tropical fruits in Indonesia having a high economic value. Determining the maturity and ripeness of durian non-destructively is a serious problem in selecting durian. Consequently, a non-destructive method for determining the maturity and ripeness of the durian pulp is a real need. The objective of this research was to determine the maturity and ripeness of durian, non-destructively, through its acoustic characteristics. In achieving such objective, the research is divided into several specific objectives, i.e. (1) to determine the physical characteristics and the criteria of immature and mature durians; (2) to determine the acoustic characteristics of immature and mature durians; (3) to determine the impacts of artificial ripening on the acoustic characteristics of durian; (4) to determine the acceptability of consumer on the artificial and natural ripened durian; (5) to determine the acoustic characteristics of the fruit components; and (6) to develop the empirical model for determination the maturity and ripeness of durian. The material used in the research was a prime quality durian of Sunan cultivars, originated from the durian estate of Bernard Sadhani at Cianjur District, West Java.


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