

## ABSTRACT

### THE VALIDATION OF GUAVA FRUIT (*PSIDIUM GUAJAVA*) QUALITY BASED ON PHYSICAL AND MECHANICAL PROPERTIES

By

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The guava fruit quality affects the appeals of customers. Good quality guava fruit has a higher selling price. The guava fruit qualities are classified based on size, ripeness degree, color, and defect. The objectives of this research were to study the physical and mechanical properties of guava and to validate the quality classifications conducted by workers based on the standards. About 150 samples of guava fruits were obtained from a guava cultivation industry in Lampung province. The quality parameters were observed such as diameter, weight, length, volume, and fruit hardness. Fruit weight in this research met the SNI standard (>450 gram), however fruit weight standard policy possessed by one of guava cultivation industry in Lampung province was not belonging to the industry standard (fruit weight was less than 700-800 gram). The fruit diameter in this research did not meet to SNI quality (less than 100 mm), so that averagely the diameter of the guava fruits belonged to *grade D*. The results concluded that standards in guava industry belonged to measurement code 3 and 4 according to SNI, because the guava classifications were measured based on subjective justifications of workers when harvesting the guava fruits in the fields, where the average of fruit weights were 500-800 grams with ripeness degree of 60-90%.

Keywords: Fruit quality, Guava, Post harvest