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Development of New Product : Rambutan Pulpy Juice

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ABSTRACT

This study aimed to know the effect of adding pulp in rambutan fruit juice on the characteristics of rambutan juice during storage. Research using the CRD, the treatment were kind of pulp (mandarin and rambutan) and pulp concentration (5%, 7.5%, and 10%). The results showed that the addition of pulp significantly affect the characteristics of rambutan juice (pH, vitamin C, total acid) during storage. Pulpy juice with the most prefered was addition of rambutan pulp as much as 7.5% (w/v) and the addition of citrus pulp as much as 7.5% (w/v) with the score of 3-4 (moderate like - like).

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Keywords : pulpy juice, rambutan, citrus, storage

INTRODUCTION

Native to Southeast Asia's fruit, rambutan *(Nephelium lappaceum* L.) belongs to the same family (Sapindaceae) as the sub-tropical fruits lychee and longan [1]. This fruit is an important commercial crop in Asia, where it is consumed fresh, canned, or processed, and appreciated for its refreshing flavour and exotic appearance [2].

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When the season arrives, the price of rambutan fruit can be decreased dramatically. Therefore, there should be an effort that is able to overcome this price drop by put efforts on realise an added value. Processing of fresh rambutan into new products is one of ways that can be used, one of which is the processing of rambutan fruit into fruit juice. This process can make rambutan stored longer, more practical and make the contents of vitamins and minerals in the fruit more quickly absorbed by the body. The addition of the citrus pulp and rambutan pulp are expected to be the alternative of processed rambutan preferred by consumer.

Juice obtained from the fruit pulp is diluted, so it has the similar taste with the original fruit. Commercial production of rambutan juice has certain operation and standards so that the product be accepted widely by society. One of the condition is the contents of vitamins, stabilizers, sugar, total acid, colors, and preservatives in fruit juices. The contents of the fruit juice can be change during storage. Pulpy juice is a relatively new product and not commonly found produced by small scale producer need to be investigated. In Indonesia, the beverage industry with a fruit juice content is one of the processed food by industries categories which growing fast with an average growth rate of 12 percent in the last five years [3]. Product innovation *i.e.* ready to drink beverage which contain fruit juice in packages, can fulfill the needs of the consumption of fruits in Indonesia which is still relatively low. These innovations can be further developed with the addition of the fruit pulp to increase consumer interest.

The addition of citrus and rambutan pulp with different concentrations on rambutan fruit juice can also affect the composition of these fruit juices and their preferences response. Therefore, the study of the effect of the addition of fruit pulp in the rambutan juice during a certain period of storage is necessary to be done. This study aimed to determine the effect of pulp on the characteristics of rambutan fruit juice during storage.

MATERIAL AND METHOD

Material

The equipment used included: scales, blender, juicer, oven, refractometer, pH meter, chromameter, and glassware. The materials used included rambutan cv. Lebak Bulus, distilled water, citric acid 1%, NaOH, carragenan, CMC (Carboxy Methyl Cellulose), sodium benzoate, potassium sorbate, vitamin C, sugar, citrus cv. Medan, NaCl, starch 1%, iodine solution, pH 7 standard buffer, and the indicator phenolphtalein. The study was conducted at the Laboratory Indonesian Center for Agricultural Postharvest Research and Development.

Methods