

ABSTRACT

EFFECT OF ULTRASONIC PRE-TREATMENT ON QUALITY OF PINEAPPLE CHIPS IN VACUUM FRYING

By

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Pineapple is one type of popular fruits grown in Indonesia. Production of pineapple fruit usually has problems in post harvest. The product is easily damaged so it needs to be handling properly and carefully to maintain its quality. One effort to improve the physico-chemical characteristic of the fruit during processing is by using ultrasonic pre-treatment.

This study aimed to (1) determine the effect of ultrasonic pre-treatment on the total soluble solid representing sugar content of pineapple, (2) know the effect of ultrasonic pre-treatment on the final moisture content of pineapple chips produced, (3) study the effect of ultrasonic pre-treatment to the crispness of fried pineapple chips.

The research was conducted with 3 levels of ultrasonic pre-treatment duration. The first was 10 minutes, the second was 20 minutes and the third was 30 minutes. Each treatment was repeated 3 times as replication.

The results showed that (1) the level of total soluble solid representing sugar content in the pineapple fruit decreased with increasing the duration of ultrasonic pre-treatment, (2) pineapple tissue damaged or breakaged due to ultrasonic pre-treatment (3) pineapple chips at 30 minutes ultrasonic pre-treatment showed that the decreasing of moisture content was higher compared with the others, (4) the most crispy of pineapple chips was produced by the pre-treatment ultrasonic of 30 minutes. While the control (pineapple chips without ultrasonic pre-treatment) was showing not crispy.

Key words: ultrasonic, sugar content, total soluble solid, crispness, pineapple