**THESIS**

**THE EFFECT OF ADDITIONAL ON YEAST TAPE (*Saccaromyces cerevisiae*) AND VARIOUS LEAVES COVERING ON FERMENTATION OF COCOA FRUIT (*Theobroma cacao* L) TOWORD THE QUALITY OF DRY COOCO SEEDS**



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2020

**ABSTRACT**

The Effect of Addition on Yeast Tape (*Saccaromyces cerevisiae*) and Various leaves Covering of Fermentation on Cocoa Fruit (*Theobroma cacao* L) toward Quality of Dried Cocoa Beans

The purpose of this study was to determine the response to the addition of tape yeast and various cover leaves in the fermentation process of quality cocoa beans (*Theobroma cacao* L) according to the Indonesian National Standard (SNI). This research was conducted at PTPN 12 Kediri and the Laboratory of Agrotechnology, University of Darussalam Gontor in April-August 2020. The research design used a factorial Completely Randomized Design (CRD). The first factor was the addition of tape yeast (R) which consisted of 5 levels, namely: no yeast (R0), the addition of tape yeast is 0.5% (R1), 1.0% (R2), 1.5% (R3) , and 2.0% (R4). The second factor was leaf cover (D) which consisted of 5 levels, namely: D1 (Banana Leaves), D2 (Teak Leaves), D3 (Taro Leaves), D4 (Papaya Leaves) and D5 (Bamboo Leaves). Observation parameters included fermentation temperature of cocoa beans, acidity (pH) outside of cocoa beans, number of beans per 100 grams, moisture content, sugar content, split test and, phytochemical qualitative test. Observation data were analyzed by using analysis of variance (ANOVA) and further tested with LSD 5%. The addition of yeast and various types of fermented cover leaves improved the quality of the cocoa beans. There was no interaction between the addition of tape yeast and various cover leaves in all observations of the quality of fermented cocoa beans. The addition of 2% yeast tape improved the quality of fermented cocoa beans on the parameters of fermentation temperature on day 1 (35.3 0C), pH (6.14), moisture content (8.5%), sugar content (1.8 brix) and brown seed color (97.2%). Cover leaf fermentation of cocoa beans on banana leaves increased the pH of cocoa beans (6.2)

Key words: Fermentation, cocoa beans, various leaves.

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