

ABSTRACT

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APPLICATION OF COCOA POWDER SUBSTITUTE MADE FROM FERMENTED AND UNFERMENTED DURIAN (*Durio zibethinus* L.) SEED TO BAKED BROWNIE

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Currently, some top cocoa producing countries including Indonesia are experiencing negative trend of cocoa production. This has prompted the search for materials that can be used as substitutes for cocoa powder. Durian seed is underutilized waste that has the potential to produce chocolate flavor due to the similarity of carbohydrate and protein composition with cocoa beans. In this research, durian seed was used as a substitute for cocoa powder in baked product. There are two types of durian seed powder produced, namely fermented and unfermented ones. Fermentation was carried out anaerobically for 7 days by adding durian pulp and a starter culture of *tape* yeast on the durian seeds. Both fermented and unfermented durian seeds were then dried in the same condition. Roasting was performed afterwards with a combination of different temperatures (180 °C, 200 °C) and times (20 minutes, 30 minutes, 40 minutes). Based on the research, fermented durian seed that was roasted at 180 °C for 40 minutes had a °hue of 58.28 ± 7.42 which was similar to Natural cocoa powder. The application of it into baked brownie generated a fairly high acceptance, namely 4.87 ± 1.01 for chocolate aroma, 4.97 ± 1.16 for chocolate taste, and 5.27 ± 0.98 for overall acceptance. The similarities of fermented and unfermented durian seed powders with Natural cocoa powder were 62.50% and 55.75%, while with Dutch cocoa powder were 56.75% and 55.75% respectively.

Keywords : durian seed, chocolate, cocoa powder substitute, fermentation, drying, roasting temperature, roasting time

References: 83 (1998-2020)