

Effect of Addition Cinnamon Extract (*Cinnamomum burmannii*) to Water Content, pH Value, Total Lactid Acid Bacteria Colonies, Antioxidant Activity and Cholesterol Levels of Goat Milk Yoghurt Isolates Dadih (*Pediococcus pentosaceus*)

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Abstract : This study aimed to determine the effect of addition cinnamon extract (*Cinnamomum burmannii*) in making goat milk yogurt product isolates dadih (*Pediococcus pentosaceus*) to antioxidant activity and cholesterol levels. The method of research was the experimental method by using a Randomized Block Design (RBD), which consists of 5 treatments with 4 groups as replication. Treatment in this study was used of cinnamon extract as A (0%), B (1%), C (2%), D (3%), E (4%) in a goat's milk yoghurt. This study was used 4200 ml of Peranakan Etawa goat's milk and 80 ml of cinnamon extract. The variable analyzed were water content, pH value, total lactic acid bacterial colonies, antioxidant activity and cholesterol levels. The average water content ranged from 81.2-85.56%. Mean pH values rang between 4.74-4.30. Mean total lactic acid bacteria colonies ranged from 3.87×10^8 - 7.95×10^8 CFU/ml. The average of the antioxidant activity ranged between 10.98%-27.88%. Average of cholesterol levels ranged from 14.0 mg/ml-17.5 mg/ml. The results showed that the addition of cinnamon extract in making goat milk yoghurt product isolates dadih (*Pediococcus pentosaceus*) significantly different ($P < 0.05$) to water content, pH value, total lactic acid bacterial colonies, antioxidant activity and cholesterol levels. In conclusion, the study shows that using of cinnamon extract 4% is the best in making goat milk yoghurt.

Keywords : antioxidant, cholesterol, cinnamon, *Pediococcus pentosaceus*, yoghurt

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