INTISARI

Kunyit (*Curcuma longa*) merupakan tanaman obat yang diteliti secara ilmiah memiliki khasiat sebagai antibakteri. Inovasi dibutuhkan untuk pemanfaatan sari kunyit secara luas seperti yogurt kunyit. Penelitian ini bertujuan untuk mengetahui adanya daya hambat, konsentrasi optimum sari kunyit dalam formula yogurt dalam menghambat *Escherichia coli* penyebab diare dan mengevaluasi formula yogurt kunyit yang disukai oleh panelis.

Penelitian eksperimental ini menggunakan Rancangan Acak Lengkap. 5 formula dengan variasi konsentrasi sari kunyit 0% sebagai kontrol, 1%, 2%, 3%, dan 4% v/v. Pengujian antibakteri menggunakan metode difusi cakram dengan tiga kali pengulangan. Evaluasi mutu yogurt meliputi uji hedonik, uji organoleptik meliputi warna, aroma, tekstur, kekentalan, rasa, dan uji pH. Data uji antibakteri berupa diameter zona hambat dianalisis statistik menggunakan Anova One Way taraf kepercayaan 95% dilanjutkan uji LSD. Data hasil uji organoleptik dianalisis deskriptif dan uji hedonik dianalisis statistik menggunakan Kruskal Wallis taraf kepercayaan 95% dilanjutkan uji Mann Whitney.

Hasil uji antibakteri menunjukkan formula kontrol, 1, 2, 3, dan 4 dapat menghambat bakteri *Escherichia coli* dengan diameter zona hambat masing – masing 10,50 mm; 11,02 mm; 11,35 mm; 13,39 mm; 13,5 mm; dengan hasil analisis statistik berbeda signifikan (p=0,003). Pengujian hedonik menunjukkan formula 1 menjadi formula yogurt disukai oleh panelis.

Kata kunci: *Curcuma longa, Escherichia coli*, Yogurt, Diare, Diameter Zona Hambat

ABSTRACT

Turmeric (*Curcuma longa*) is a medicinal plant whitch scientifically approved has a efficacious antibacterial. The inovation of usage widely of the turneric extract such as turmeric yoghurt. The purpose of this study was to find out the inhibitory effects, optimum concentration of turmeric yoghurt's formula against *Escherichia coli* caused diarrhea, and also evaluated the turmeric yogurt acceptance by the panelist. This experimental study was using completely randomized design (CRD). There are 5 formula with 1, 2, 3, 4% v/v concentrations of the turneric extract and also 0% as control. Antibacterial test was done using disc diffusion method with three times repetition and the quality of yoghurt were evaluated by hedonic test, organoleptic value, such as color, scent, texture, consistency, flavor and pH test. Antibacterial test data was obtained from the diameter of inhibition zone and was statistically tested using one way anova with 95% confidence interval followed with LSD test. Organoleptic data test was analyzed descriptively and hedonic test was analyzed statistically using Kruskal Wallis with 95% confidence interval followed with Mann Whitney test. The antibacterial test result showed of control formula, 1, 2, 3, and 4 could inhibited against *Escherichia coli* with the inhibition zone diameters were 10.50 mm, 11.02 mm, 11.35 mm, 13.39 mm, and 13.50 mm with results of the study showed statistically significant difference (p=0.003). Formula 1 was a formula which got the like from the panelists.

Key words: *Curcuma longa, Escherichia coli*, Yoghurt, Diarrhea, Inhibition Zone Diameter