

THE EFFECT OF LIQUID SOAP MADE FROM USED COOKING OIL AND GREEN TEA EXTRACT ON THE GERM COLONIES IN ICED DAWET GLASS IN THE MALIOBORO AREA

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ABSTRACT

Food traders behavior frequently doesn't pay any attention to the sanitation of their equipment in serving their wares. That can be the one of the media that causes disease. To increase the antibacterial power of soap, natural antibacterial ingredients are needed in the soap. Green tea contains flavanoids and catechins that work as antibacterial that can be used in dish soap formulations. The purpose is to determine the effect of liquid soap from used cooking oil and green tea extract on the number of glass germs.

Research methods with experimental methods and data analysis. This research is a quasi experiment with a pre-post test with control group design. There were 4 treatment groups with 6 repetitions, so there are 24 samples. Data analysis using descriptive analysis and statistical analysis with tests of data normality, homogeneity, One Way Anova and LSD.

The average decrease in germ numbers after being treated with a concentration of 22.5% was 84.8%, a concentration of 25% was 89.8%, and a concentration of 27.5% was 91.5%. Based on the One Way Anova statistical test, a significance value was 0.002 (p -value < 0.05), which means that there is a significant influence between the use of green tea extract dish soap and a decrease in the number of germs in the glass.

There is an effect of liquid soap from used cooking oil and green tea extract on reducing the number of glass germs. The concentration that reduces the number of glass germs the most is a soap concentration of 27.5%.

Keywords: green tea, soap, germ number

PENGARUH SABUN CAIR DARI BAHAN MINYAK JELANTAH DAN EKSTRAK TEH HIJAU TERHADAP ANGKA KUMAN GELAS DI PEDAGANG ES DAWET KAWASAN MALIOBORO

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ABSTRAK

Perilaku pedagang sering tidak memperhatikan sanitasi peralatan dalam menyajikan dagangannya sehingga dapat menjadi salah satu media penyebab penyakit. Untuk meningkatkan daya antibakteri pada sabun, diperlukan bahan antibakteri alami pada sabun. Teh hijau mengandung *flavanoid* dan katekin yang berperan sebagai antibakteri sehingga dapat digunakan dalam formulasi sabun cuci piring. Tujuan penelitian ini untuk mengetahui pengaruh sabun cair dari bahan minyak jelantah dan ekstrak teh hijau terhadap angka kuman gelas.

Metode penelitian dengan metode eksperimen dan analisis data. Jenis penelitian ini adalah *quasi experiment* dengan desain *pre-post test with control group design*. Terdapat 4 kelompok perlakuan dengan 6 kali pengulangan, sehingga jumlah sampel sebanyak 24. Analisis data menggunakan analisis deskriptif dan analisis statistik dengan uji normalitas data, homogenitas, One Way Anova dan LSD.

Rerata penurunan angka kuman setelah diberi perlakuan konsentrasi 22,5% yaitu 84,8%, konsentrasi 25% yaitu 89,8%, dan konsentrasi 27,5% sebesar 91,5%. Berdasarkan uji statistik *One Way Anova*, diperoleh nilai signifikansi 0,0002 (*p-value* < 0,05) yang artinya terdapat pengaruh signifikan antara penggunaan sabun cuci piring ekstrak teh hijau dengan penurunan angka kuman pada gelas.

Ada pengaruh sabun cair dari bahan minyak jelantah dan ekstrak teh hijau terhadap penurunan angka kuman gelas. Konsentrasi yang paling banyak menurunkan angka kuman gelas yaitu konsentrasi sabun 27,5%.

Kata Kunci: teh hijau, sabun, angka kuman