

Winda Putri Wibisono

**“PEMANFAATAN LARUTAN LIDAH BUAYA DALAM MENURUNKAN ANGKA KUMAN PADA ALAT MAKAN (Studi Kasus Pedagang Soto Keliling Klampis Ngasem Surabaya)”**

xv + 53 Halaman + 12 Tabel + 4 Gambar + 7 Lampiran

Kontaminasi melalui alat makan dapat diakibatkan melalui pencucian yang tidak benar. Persyaratan pencucian alat makan yang tidak terpenuhi berpotensi mempengaruhi jumlah kuman pada alat makan tersebut. Pengolahan alternatif pada proses desinfeksi untuk menurunkan angka kuman pada alat makan dengan memanfaatkan bahan alami yaitu lidah buaya yang mengandung saponin berfungsi sebagai antibakteri. Penelitian ini bertujuan untuk mengetahui penurunan angka kuman pada alat makan melalui larutan lidah buaya pada mangkok pedagang soto keliling Klampis Ngasem Surabaya.

Penelitian ini menggunakan pendekatan kuantitatif dengan rancangan eksperimen *Posttest Only Control Group Design*. Objek penelitian adalah mangkok pedagang soto keliling dan angka kuman mangkok sebesar 24 sampel. Data dikumpulkan melalui observasi teknik pencucian pedagang dan uji laboratorium ALT alat makan. Data hasil uji angka kuman alat makan mangkok sesudah perlakuan dianalisis menggunakan *One Way Anova*.

Hasil penelitian menunjukkan angka kuman alat makan mangkok sesudah diberi kelompok perlakuan menggunakan konsentrasi 0 gr/ltr dengan rata-rata 486,66 koloni/cm<sup>2</sup>, konsentrasi 50 gr/ltr dengan rata-rata 353,33 koloni/cm<sup>2</sup>, konsentrasi 75 gr/ltr dengan rata-rata 160 koloni/cm<sup>2</sup> dan konsentrasi 100 gr/ltr dengan rata-rata 86,66 koloni/cm<sup>2</sup>. Uji *One Way Anova* didapatkan konsentrasi efektif dalam menurunkan angka kuman yaitu konsentrasi 100 gr/ltr.

Kesimpulan penelitian ini adalah rata-rata penurunan angka kuman konsentrasi 50 gr/ltr, 75 gr/ltr dan 100 gr/ltr adalah signifikan. Lidah buaya dapat dimanfaatkan sebagai bahan desinfeksi pada pencucian alat makan dalam menurunkan angka kuman alat makan. Masyarakat dan pedagang keliling diharapkan dapat memakai lidah buaya karena harga terjangkau, mudah didapatkan dan ramah lingkungan serta diharapkan menjadi pengembangan bidang ilmu kesehatan lingkungan.

Kata Kunci : Larutan Lidah Buaya, Alat Makan, Angka Kuman  
Daftar Bacaan : 22 Buku dan Jurnal (2008-2020)

## ABSTRACT

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### "UTILIZATION OF ALOE VERA SOLUTION TO REDUCE THE GERM NUMBERS IN TABLEWARE (A Case Study of Pedagang Soto Keliling Klampis Ngasem Surabaya)"

xv + 53 Pages + 12 Tables + 4 Pictures + 7 Appendices

Contamination through cutlery can result from improper washing. The requirements for washing cutlery that are not met have the potential to affect the number of germs on the cutlery. Alternative processing in the disinfection process to reduce the number of germs on cutlery by utilizing natural ingredients, namely aloe vera which contains saponins that function as antibacterial. This study aims to determine the decrease in the number of germs on cutlery through a solution of aloe vera in the bowls of the soto traders around Klampis Ngasem Surabaya.

This research uses a quantitative approach with an experimental design of *Posttest Only Control Group Design*. The object of the research is the bowl of the traveling soto vendor and the germ number of the bowl is 24 samples. Data were collected through observation of traders' washing techniques and laboratory testing of ALT cutlery. The results of the test for the germ number of bowl cutlery after treatment were analyzed using *One Way Anova*.

The results showed that the germ numbers of bowl cutlery after being given the treatment group used a concentration of 0 g/ltr with an average of 486.66 colonies/cm<sup>2</sup>, the concentration 50 gr/ltr with an average of 353.33 colonies/cm<sup>2</sup>, a concentration of 75 gr/ltr with an average of 160 colonies/cm<sup>2</sup> and a concentration of 100 gr/ltr with an average of 86.66 colonies/cm<sup>2</sup>. test *One Way Anova* found an effective concentration in reducing the number of germs on cutlery, namely a concentration of 100 g/ltr.

The conclusion of this study is that the average reduction in the number of germs in concentrations of 50 gr/ltr, 75 gr/ltr and 100 gr/ltr is significant. Aloe vera can be used as a disinfectant in washing cutlery to reduce the number of germs on cutlery. The community and itinerant traders are expected to be able to use aloe vera because it is affordable, easy to obtain and environmentally friendly and is expected to be a development in the field of environmental health science.

Keywords : Aloe Vera Solution, Cutlery, Germ Numbers  
Reading List : 22 Books and Journals (2008-2020)