

**PENGARUH VARIASI LAMA WAKTU PERENDAMAN GELAS DALAM  
DESINFEKTAN PERASAN BUAH BELIMBING WULUH (*Averrhoa blimbi*)  
TERHADAP PENURUNAN ANGKA KUMAN GELAS  
DI ANGKRINGAN GAMPING, SLEMAN**

**Neni Handayani\*, Siti Hani Istiqomah\*\*, Sri Muryani\*\*\***

Jl. Tata Bumi No. 3 Banyuraden, Gamping, Sleman  
Jurusan Kesehatan Lingkungan Sarjana Terapan Sanitasi Lingkungan  
Poltekkes Kemenkes Yogyakarta

Email: [nenihand28@gmail.com](mailto:nenihand28@gmail.com)\*, [hani\\_ist@yahoo.co.id](mailto:hani_ist@yahoo.co.id)\*\* , [muryanisri64@gmail.com](mailto:muryanisri64@gmail.com)\*\*\*

## **INTISARI**

Angkringan adalah salah satu tempat penjual makanan atau minuman yang sebagian besar memiliki teknik pencucian gelas menggunakan ember dan tidak dibilas dengan air yang mengalir sehingga kebersihan gelas menjadi hal yang perlu diperhatikan sehingga diperlukan upaya untuk mencegah kontaminasi alat makan. Salah satu caranya setelah pencucian peralatan makan dapat menggunakan desinfektan. Buah belimbing wuluh merupakan bahan alami yang mengandung zat antibakteri yaitu *flavonoid*, *saponin* dan *tanin*.

Tujuan penelitian ini yaitu mengetahui pengaruh variasi waktu perendaman gelas dalam desinfektan perasan buah belimbing wuluh terhadap penurunan angka kuman gelas dengan variasi waktu 20 detik, 30 detik, 40 detik, 50 detik.

Jenis penelitian ini *True Experiment* dengan pendekatan *Pretest-Posttest with Control Group Design*. Penelitian ini dilaksanakan pada bulan Februari-Maret 2021, Objek penelitian ini adalah gelas 5 angkringan di Gamping, Sleman. Pada penelitian ini total sampel yang digunakan adalah 15 gelas. Uji normalitas daya menggunakan *Shapiro Wilk* dilanjutkan dengan uji statistik *One Way Anova*.

Hasil analisis deskriptif diperoleh penurunan angka kuman setelah perendaman 20 detik rata-rata 2.537 koloni/cm<sup>2</sup> dan rata-rata angka kuman *post* sebesar 336 koloni/cm<sup>2</sup>, perendaman 30 detik sebesar 3.940 koloni/cm<sup>2</sup> dan rata-rata angka kuman *post* sebesar 3.038 koloni/cm<sup>2</sup>, perendaman 40 detik sebesar 1.408 koloni/cm<sup>2</sup> dan rata-rata angka kuman *post* sebesar 4.144 koloni/cm<sup>2</sup>, perendaman 50 detik sebesar 3.577 koloni/cm<sup>2</sup> dan rata-rata angka kuman *post* sebesar 2.857 koloni/cm<sup>2</sup> dan perendaman kelompok kontrol rata-rata mengalami kenaikan sebesar 1.210 koloni/cm<sup>2</sup> dan rata-rata angka kuman *post* sebesar 4.760 koloni/cm<sup>2</sup>. Seluruh angka kuman *post* belum memenuhi standar baku mutu, namun lama waktu perendaman dengan penurunan paling banyak yaitu perendaman selama 30 detik mampu menurunkan angka kuman sebesar 3.940 koloni/cm<sup>2</sup>.

Berdasarkan statistik tidak ada pengaruh variasi waktu perendaman gelas pada desinfektan perasan buah belimbing wuluh dalam menurunkan angka kuman gelas dan diperoleh waktu perendaman yang paling efektif adalah 30 detik.

**Kata Kunci:** Perasan Buah Belimbing Wuluh, Angka Kuman Gelas, Desinfeksi Gelas, Angkringan

**THE EFFECT OF VARIATION OF GLASS SOAKING TIME IN  
THE DISINFECTANT OF STAR FRUIT WULUH (*Averrhoa blimbi*)  
ON THE REDUCTION OF GLASS GERM NUMBERS IN  
ANGKRINGAN GAMPING, SLEMAN**

**Neni Handayani\*, Siti Hani Istiqomah\*\*, Sri Muryani\*\*\***

Jl. Tata Bumi No. 3 Banyuraden, Gamping, Sleman  
Jurusan Kesehatan Lingkungan Sarjana Terapan Sanitasi Lingkungan  
Poltekkes Kemenkes Yogyakarta

Email: [nenihand28@gmail.com](mailto:nenihand28@gmail.com)\*, [hani\\_ist@yahoo.co.id](mailto:hani_ist@yahoo.co.id)\*\* , [muryanisri64@gmail.com](mailto:muryanisri64@gmail.com)\*\*\*

**ABSTRACT**

Angkringan is one of the places selling food or drinks, most of which have a glass washing technique using a bucket and not rinsing with running water so that the cleanliness of the glass is something that needs to be considered so efforts are needed to prevent contamination of cutlery. One way after washing tableware can use a disinfectant. Star fruit is a natural ingredient that contains antibacterial substances, namely flavonoids, saponins and tannins.

This study aims to determine the effect of variations in the immersion time of glass in the disinfectant juice of star fruit wuluh to decrease the number of germs in glass with variations in time of 20 seconds, 30 seconds, 40 seconds, 50 seconds.

This type of research is *True Experiment* with approach *Pretest-Post test with Control Group Design*. This research was conducted in February March 2021. The object of this research is glass 5 angkringan in Gamping, Sleman. In this study, the total sample used was 15 glasses. Power normality test using *Shapiro Wilk* followed by statistical test *One Way Anova*.

The results of the descriptive analysis showed a decrease in the number of germs after 20 seconds of immersion an average of 2,537 colonies/cm<sup>2</sup> and an average germ number *post* of 336 colonies/cm<sup>2</sup>, soaking the glass for 30 seconds of 3,940 colonies/cm<sup>2</sup> and the average number of germs *post* of 3,038 colonies/cm<sup>2</sup>, soaking the glass for 40 seconds was 1,408 colonies/cm<sup>2</sup> and the average germ number *post* was 4,144 colonies/cm<sup>2</sup>, soaking the glass for 50 seconds was 3,577 colonies/cm<sup>2</sup> and the average number of germs *post* was 2.857 colonies/cm<sup>2</sup> and the average control group immersion glass increased by 1,210 colonies/cm<sup>2</sup> and the average germ number *post* was 4,760 colonies/cm<sup>2</sup>. All germ numbers did *post* not meet quality standards, but the length of soaking time with the most reduction, namely soaking for 30 seconds was able to reduce the germ number by 3,940 colonies/cm<sup>2</sup>.

Based on statistics, there is no effect of variations in the immersion time of the glass on the wuluh star fruit juice disinfectant in reducing the number of germs in the glass and the most effective immersion time is 30 seconds.

**Keywords:** Juice Fruit Starfruit Wuluh, Figures Germs Glasses, Disinfection Glass, Angkringan