

UJI ANGKA LEMPENG TOTAL DAN KARAKTERISTIK BAKTERI DI ENDO AGAR PADA AIR MINUM ISI ULANG DI DEPOT KECAMATAN CILEUNGSI, BOGOR

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Abstrak

Depot Air Minum Isi Ulang (DAMIU) termasuk kedalam badan usaha yang melakukan proses pengolahan air baku menjadi air minum. Masyarakat memilih DAMIU sebagai sumber pemenuhan air konsumsi dikarenakan harganya yang lebih terjangkau, tetapi tidak semua DAMIU memiliki persyaratan higienis yang terjamin. Persyaratan kualitas mutu air minum diatur dalam Standar Nasional Indonesia (SNI 6241:2015) dengan nilai ambang batas yaitu sebesar $1,0 \times 10^2$ CFU. Tujuan penelitian ini adalah untuk memperoleh gambaran kualitas bakteriologis air minum isi ulang dari 10 DAMIU di Kecamatan Cileungsi, Bogor melalui Angka Lempeng Total (ALT) dengan dua kali pengulangan, serta mengidentifikasi bakteri patogen yang ada dalam air minum isi ulang di Depot Air Minum Isi Ulang Kecamatan Cileungsi, Bogor. Berdasarkan SNI 6241:2015, hasil perhitungan ALT didapatkan 3/10 DAMIU (30%) memenuhi persyaratan bakteriologis air minum, yaitu pada DAM 3 sebesar $0,5 \times 10^2$ CFU/ml, DAM 5 sebesar $0,4 \times 10^2$ CFU/ml, dan DAM 6 sebesar $0,4 \times 10^2$ CFU/ml. Bakteri patogen yang diduga mencemari air minum isi ulang berdasarkan karakterisasi dari Endo Agar dan media uji biokimia berupa uji *Simmon Citrate Agar*, *D-Glucose Broth* dan *Lactose Broth* yaitu *Escherichia coli*, *Klebsiella sp*, dan *Pseudomonas aeruginosa*.

Kata kunci : Air minum isi ulang, Metode Angka Lempeng Total (ALT), *Escherichia coli*, Uji *One Way Anova*

TEST OF TOTAL PLATE COUNT AND BACTERIA CHARACTERISTICS IN ENDO AGAR IN REFILLABLE DRINKING WATER AT DEPOT CILEUNGSI DISTRICT, BOGOR

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Abstract

Refill Drinking Water Depot (DAMIU) is a business entity that processes raw water into drinking water. The community chooses DAMIU as a source of fulfillment for drinking water because the price is more affordable, but not all DAMIUs have guaranteed hygienic requirements. The requirements for drinking water quality are regulated in the Indonesian National Standard (SNI 6241:2015) with a threshold value of 1.0×10^2 CFU. The purpose of this study was to obtain an overview of the bacteriological quality of refill drinking water from 10 DAMIU in Cileungsi District, Bogor through the Total Plate Count (TPC) with two repetitions, and to identify pathogenic bacteria present in refilled drinking water at the Refill Drinking Water Depot Cileungsi District, Bogor. Based on SNI 6241:2015, the results of the ALT calculation showed that 3/10 DAMIU (30%) be found the bacteriological requirements of drinking water, namely in DAM 3 of 0.5×10^2 CFU/ml, DAM 5 of 0.4×10^2 CFU/ml, and DAM 6 of 0.4×10^2 CFU/ml. Pathogenic bacteria suspected of contaminating refilled drinking water based on the characterization of Endo Agar and biochemical test media in the form of Simmon Citrate Agar, D-Glucose Broth and Lactose Broth tests are *Escherichia coli*, *Klebsiella sp.*, and *Pseudomonas aeruginosa*.

Key words : Refill drinking water, Total Plate Count Method (TPC), *Escherichia coli*, One Way Anova Test