

## INTISARI

Sambiloto (*Andrographis paniculata* (Burm.f.) Nees) banyak digunakan sebagai bahan baku obat tradisional. Indonesia yang berada di daerah tropis memiliki kelembaban relatif tinggi yang menyebabkan simplisia mudah terkontaminasi selama penyimpanan. Ozon dapat digunakan sebagai alternatif untuk mengurangi kontaminasi mikroba.

Perlakuan ozon pada 50 g sampel herba sambiloto dilakukan dengan kekuatan 10 g/h dengan interval 0; 30; 60; 90 dan 120 menit. Efektivitas ozon diukur dengan melakukan uji Angka Lempeng Total (ALT) dan Angka Kapang Khamir (AKK) pada sampel yang diberikan perlakuan dan tanpa perlakuan (kontrol). Pengaruh ozon terhadap kadar senyawa *marker* (andrografolid) dianalisis dengan KLT-Densitometri. Pengaruh ozon terhadap profil kimia dianalisis dengan *High Performance Liquid Chromatography* (HPLC).

Ozon efektif menurunkan nilai Angka Lempeng Total (ALT) pada perlakuan selama 30 dan 60 menit, sedangkan untuk nilai Angka Kapang Khamir (AKK) pada perlakuan 30 menit. Ozon secara signifikan memengaruhi persentase kadar andrografolid sambiloto pada perlakuan selama 30; 60; 90 dan 120 menit. Kadar andrografolid cenderung meningkat selama perlakuan ozon. Perlakuan ozon memengaruhi profil fitokimia sambiloto, menyebabkan perubahan komposisi dan kadar senyawa selama perlakuan. Beberapa senyawa yang berubah selama perlakuan ozon yaitu: *tR* 19,154; *tR* 19,639; *tR* 17,869 dengan *tR* 11,808); senyawa yang muncul setelah perlakuan ozon 30 menit (*tR* 10,846 dan *tR* 11,499); senyawa yang menghilang setelah perlakuan 120 menit (*tR* 11,499).

Kata Kunci : *Andrographis paniculata* (Burm.f.) Nees. Ozon, Dekontaminasi mikroba, Fitokimia.

## ABSTRACT

Sambiloto (*Andrographis paniculata* (Burm.f.) Nees) is widely used as a raw material for traditional medicine. Indonesia, located in tropical regions, has a relatively high humidity that causes simplisia to be easily contaminated during storage. Ozone can be used as an alternative to reduce microbial contamination.

Ozone treatment on a 50 g sample of sambiloto herb was carried out with a strength of 10 g/h at intervals of 0, 30, 60, 90, and 120 minutes. The effectiveness of ozone was measured by conducting tests on Total Plate Count (TPC) and Total Mold and Yeast Count (TMYC) on treated and untreated (control) samples. The effect of ozone on the level of the marker compound (andrographolide) was analyzed by TLC-Densitometry. The impact of ozone on the chemical profile was analyzed by High-Performance Liquid Chromatography (HPLC).

Ozone effectively reduces the Total Plate Count (TPC) values during treatments for 30 and 60 minutes, while for Total Mold and Yeast Count (TMYC) values, it occurs during the 30-minute treatment. Ozone significantly influences the percentage of andrographolide content in sambiloto during treatments for 30, 60, 90, and 120 minutes. The andrographolide content tends to increase during ozone treatment. Ozone treatment affects the phytochemical profile of sambiloto, causing changes in composition and content of compounds during the treatment. Some compounds that change during ozone treatment are: tR 19.154; tR 19.639; tR 17.869 with tR 11.808; compounds that appear after 30 minutes of ozone treatment (tR 10.846 and tR 11.499); compounds that disappear after 120 minutes of treatment (tR 11.499).

**Keywords:** *Andrographis paniculata* (Burm.f.) Nees, Ozone, Microbial decontamination, Phytochemistry.