

# **KINETIKA PERUBAHAN SENYAWA VOLATIL UTAMA DAUN JERUK PURUT (*Citrus hystrix* DC) BUBUK DENGAN DUA METODE PENGEMASAN SELAMA PENYIMPANAN**

**BIAS AYU PAKARTI**

**20/470171/PTP/01799**

## **Intisari**

Jeruk purut (*Citrus hystrix* DC) merupakan tanaman bernilai ekonomi tinggi dengan manfaat di industri pangan, obat-obatan, dan kosmetik. Daunnya sering digunakan sebagai penyedap makanan serta memiliki sifat bioaktif, seperti anti-tumor, anti-inflamasi, antijamur, dan antioksidan. Aroma khas daun jeruk purut berasal dari senyawa volatil utama, termasuk *citronellal*, *citronellol*, *linalool*, dan  $\beta$ -*caryophyllene*. Namun, senyawa ini mudah mengalami degradasi akibat faktor lingkungan, sehingga diperlukan metode pengolahan yang tepat untuk mempertahankan kualitasnya.

Penelitian ini mengevaluasi kinetika perubahan senyawa volatil pada bubuk daun jeruk purut kering selama penyimpanan dengan metode pengemasan hot sealing (HS) dan vacuum sealing (VS). Hasil penelitian menunjukkan bahwa penurunan konsentrasi senyawa volatil lebih kecil pada pengemasan VS dibandingkan HS selama penyimpanan 8 minggu. Umur simpan berdasarkan senyawa  $\beta$ -*caryophyllene* pada pengemasan HS dan VS berturut-turut adalah 0,13 dan 0,05 hari. Profil sensori daun jeruk purut kering mencakup aroma *minty*, *pungent*, *sweet*, *citrusy*, *lemony*, *kaffir lime leaf*, *greeny*, *orange peel*, *earthy*, *spices*, *eucalyptus*, *floral*, *savory*, *nutty*, *herbs*, dan *smoky*.

**Kata kunci:** daun jeruk purut, senyawa volatil, umur simpan, pengemasan, profil sensori.

## KINETICS OF CHANGES IN MAJOR VOLATILE COMPOUNDS OF KAFFIR LIME (*Citrus hystrix* DC) LEAF POWDER WITH TWO TYPES OF PACKAGING DURING STORAGE

**BIAS AYU PAKARTI**

**20/470171/PTP/01799**

### **Abstract**

*Kaffir lime* (*Citrus hystrix* DC) is a plant with high economic value, widely used in the food, pharmaceutical, and cosmetic industries. Its leaves are commonly used as a food flavoring agent and possess bioactive properties such as anti-tumor, anti-inflammatory, antifungal, and antioxidant effects. The distinctive aroma of kaffir lime leaves originates from volatile compounds, including citronellal, citronellol, linalool, and  $\beta$ -caryophyllene. However, these compounds are highly susceptible to degradation due to environmental factors, necessitating proper processing methods to maintain their quality.

This study evaluates the kinetic changes of volatile compounds in dried kaffir lime leaf powder during storage using hot sealing (HS) and vacuum sealing (VS) packaging methods. The results indicate that volatile compound degradation was lower in VS compared to HS over an 8-week storage period. The shelf life, based on  $\beta$ -caryophyllene degradation, was 0.13 days for HS and 0.05 days for VS packaging. The sensory profile of dried kaffir lime leaf powder included minty, pungent, sweet, citrusy, lemony, kaffir lime leaf, greeny, orange peel, earthy, spices, eucalyptus, floral, savory, nutty, herbs, dan smoky.

**Keywords:** kaffir lime leaf, volatile compounds, shelf life, packaging, sensory profile.