

Pendugaan Umur Simpan Teh Celup Daun dan Buah Belimbing Wuluh (*Averrhoa Bilimbi* Linn.) dengan Penambahan Jahe (*Zingiber Officinale*)

Thaneza Nur Ramadhani,¹ Diana Nur Afifah,¹ Yora Nindita,² Ninik Rustanti¹

ABSTRAK

Latar belakang : Teh daun dan buah belimbing wuluh berpotensi sebagai efek antioksidan dan antihipertensi yang dapat menjadi alternatif untuk hipertensi. Peningkatan daya terima dilakukan dengan penambahan jahe dalam pembuatan teh. Informasi umur simpan teh juga diperlukan agar keamanan teh dapat terjamin.

Tujuan : Menduga umur simpan teh celup daun dan buah belimbing wuluh dengan penambahan jahe menggunakan metode ASLT, serta mengetahui perbedaan suhu dan lama penyimpanan terhadap parameter kadar air dan vitamin C.

Metode : Jenis penelitian ini adalah penelitian eksperimental. Teh disimpan pada suhu 25°C, 35°C, dan 45°C selama 14 hari. Kadar air dan vitamin C dianalisis pada hari ke-0, 4, 7, 11, dan 14. Umur simpan teh dihitung dengan persamaan Arrhenius. Uji normalitas menggunakan *Shapiro-Wilk* dan analisis statistik menggunakan *Friedman two-way ANOVA by ranks*.

Hasil : Terdapat perbedaan signifikan rata-rata kadar air dan vitamin C dengan suhu dan lama penyimpanan teh ($P = 0,000$). Umur simpan teh celup daun dan buah belimbing wuluh dengan penambahan jahe jika disimpan pada suhu 25°C, 35°C, 45°C berturut-turut yaitu 48 hari, 28 hari, dan 17 hari.

Simpulan : Peningkatan suhu dan lama penyimpanan menyebabkan kadar air dan vitamin C semakin mengalami penurunan, serta umur simpan produk semakin pendek.

Kata kunci : teh belimbing wuluh, hipertensi, umur simpan, kadar air, vitamin C

¹ Departemen Ilmu Gizi, Fakultas Kedokteran, Universitas Diponegoro, Semarang

² Departemen Kedokteran, Fakultas Kedokteran, Universitas Diponegoro, Semarang

Self-life Estimation of Tea Bags from *Averrhoa Bilimbi* Linn. Leaves and Fruit with the Addition of Ginger (*Zingiber Officinale*)

Thaneza Nur Ramadhani,¹ Diana Nur Afifah,¹ Yora Nindita,² Ninik Rustanti¹

ABSTRACT

Background : *Bilimbi L. leaves and fruit have potential as antioxidant and antihypertensive effects which can be an alternative for hypertention. Increased acceptability by adding ginger to tea processing. Information about the shelf-life of tea is also required so that safety of tea can be guaranteed.*

Objective : *Estimate the shelf-life of tea bags of Bilimbi L. leaves and fruit with the addition of ginger using the ASLT method, as well as to determine the differences in temperature and storage time on moisture content and vitamin C parameters.*

Methods : *This type of research is an experimental research. Tea bags of Bilimbi L. leaves and fruit with the addition of ginger was stored at 25°C, 35°C, and 45°C for 14 days. Moisture content and vitamin C were analyzed on days 0, 4, 7, 11, and 14. The shelf-life of tea was calculated using the Arrhenius equation. Normality test used Shapiro-Wilk and statistical analysis used Friedman two-way ANOVA by ranks.*

Results : *There was a significant difference in the average moisture content and vitamin C with temperature and storage time of tea ($P = 0,000$). The shelf-life of tea bags made from Bilimbi L. leaves and fruit with the addition of ginger if stored at 25°C, 35°C, and 45°C respectively is 48 days, 28 days, and 17 days.*

Conclusion : *Increasing temperature and storage time cause moisture content and vitamin C to decrease, resulting in a shorter product shelf-life.*

Keywords : *bilimbi tea, hypertention, shelf-life, moisture content, vitamin C*

¹ Departemen Ilmu Gizi, Fakultas Kedokteran, Universitas Diponegoro, Semarang

² Departemen Kedokteran, Fakultas Kedokteran, Universitas Diponegoro, Semarang