

**PENGARUH PENAMBAHAN BUBUK JAHE (*Zingiber officinale*, Rosc)  
TERHADAP AKTIVITAS ANTIOKSIDAN DAN KARAKTERISTIK TEH  
HERBAL DAUN SIRIH (*Piper betle*, Linn.)**

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**2021**

# **The Effect of Additional Ginger Powder (*Zingiber officinale*, Rosc) on Antioxidant Activities and Characteristics of Betel Leaf Herbal Tea (*Piper betle*, Linn.)**

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## **ABSTRACT**

This research was aimed to (1) determine the effect of additional ginger powder on antioxidant activity and characteristics of betel leaf herbal tea, (2) determine the level of consumer acceptance of betel leaf herbal tea with a mixture of ginger powder (3) and to determine the best formulation according to consumer preferences. This research used a Completely Randomized Design (CRD) with 5 treatments and 3 replications. Treatment in this research are; A (herbal tea without the addition of ginger powder), B (herbal tea with the addition of 3% ginger powder), C (herbal tea with addition of 6% ginger powder), D (herbal tea with the addition of 9% ginger powder), and E (herbal tea with the addition of 12% ginger powder). The observations are moisture content, ash content, antioxidant activity, flavonoid, alkaloid, polyphenols and sensory analysis (colour, flavor and taste). The results showed that the added of ginger powder to betel leaf herbal tea has a significant effect on moisture content, antioxidant activity, and sensory analysis (colour, flavor and taste) and also has no significant effect on ash content, flavonoid, alkaloid and polyphenols. The results of chemical and sensory analysis showed that the best herbal tea's product is treatment E (herbal tea with the addition of 12% ginger powder) with average value of colour= 3.50 (like), flavor= 4.00 (like) and taste = 3.35 (like). The results of chemical analysis on betel leaf herbal tea of treatment E are; moisture content 7.96%, ash content 6.41%, antioxidant activity 24.04%, flavonoids test 137.48 mg QE/g, alkaloid content 0.88% and polyphenols 267.20 mg GAE/g.

*Keywords* – herbal tea, ginger powder, betel leaf



**Pengaruh Penambahan Bubuk Jahe (*Zingiber officinale*, Rosc) Terhadap Aktivitas Antioksidan dan Karakteristik Teh Herbal Daun Sirih (*Piper betle*, Linn.)**

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**ABSTRAK**

Penelitian ini bertujuan untuk (1) mengetahui pengaruh penambahan bubuk jahe terhadap aktivitas antioksidan dan karakteristik teh herbal daun sirih, (2) mengetahui tingkat penerimaan konsumen terhadap teh herbal daun sirih dengan campuran bubuk jahe (3) dan mengetahui formulasi terbaik menurut kesukaan konsumen. Penelitian ini menggunakan Rancangan Acak Lengkap (RAL) dengan 5 perlakuan dan 3 kali ulangan. Perlakuan pada penelitian ini yaitu; perlakuan A (teh herbal tanpa penambahan bubuk jahe), B (teh herbal dengan penambahan bubuk jahe 3%), C (teh herbal dengan penambahan bubuk jahe 6%), D (teh herbal dengan penambahan bubuk jahe 9%), dan E (teh herbal dengan penambahan bubuk jahe 12%). Pengamatan yang dilakukan yaitu kadar air, kadar abu, uji aktivitas antioksidan, uji flavonoid, uji alkaloid, uji total polifenol dan uji organoleptik (warna, aroma, rasa). Hasil penelitian menunjukkan bahwa penambahan bubuk jahe pada teh herbal daun sirih berpengaruh nyata terhadap kadar air, aktivitas antioksidan, dan organoleptik (warna, aroma dan rasa) namun tidak berpengaruh nyata terhadap kadar abu, kandungan flavonoid, kadar alkaloid dan total polifenol. Berdasarkan hasil analisis karakteristik kimia dan sensoris produk teh herbal yang terbaik adalah perlakuan E (teh herbal dengan penambahan bubuk jahe 12%) dengan nilai kesukaan panelis terhadap warna= 3,50 (suka), aroma= 4,00 (suka) dan rasa= 3,35 (suka). Hasil analisis kimia teh herbal daun sirih pada perlakuan E yaitu; kadar air 7,96%, kadar abu 6,41%, aktivitas antioksidan 24,04%, kandungan flavonoid 137,48mg QE/g, kadar alkaloid 0,88% dan total polifenol 267,20mg GAE/g.

Kata kunci : *teh herbal, bubuk jahe, daun sirih*

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