

## **ABSTRACT**

**Destiana Amalia Barkah. B.1610922.** Analysis of Physical, Chemical, and Sensory Properties of Crystal Guava Leaf Tea with the Addition of Stevia Leaves Powder. Supervised by Titi Rohmayanti and Tiana Fitrilia.

Crystal guava leaves have a high vitamin C content. Its availability is relatively abundant therefore applied in the form of tea. Crystal guava leaf tea is processed by the method of tray dryer spiked with instant stevia leaf powder sweetener. This research aims to utilize crystal guava leaves for the manufacture of functional beverages, namely tea. The study used a Complete Randomized Design (RAL) with drying temperature factors (50 °C, 65 °C, 80 °C) and tea concentrations of 1%, 5%, 10%). The results of data analysis using variance (ANOVA) states that both factors affect the physical and chemical properties of crystal guava leaf tea. Selected tea products are in the treatment A1B3 (50 °C:10%) where the water content is 6.15%, ash content is 8.83%, antioxidant activity is 45.3-61.3%, and IC50 value is 145.5.

Keywords: Crystal Guava Leaf Tea, Antioxidant, DPPH

## ABSTRAK

**Destiana Amalia Barkah. B.1610922.** Analisis Sifat Fisik, Kimia, dan Sensori Teh Daun Jambu Kristal dengan Penambahan Serbuk Daun Stevia. Di bawah bimbingan Titi Rohmayanti dan Tiana Fitrilia.

Daun Jambu biji kristal mempunyai kandungan vitamin C yang tinggi. Ketersediaannya relatif melimpah oleh karena itu diaplikasikan berupa teh. Teh daun jambu biji kristal diproses dengan metode *tray dryer* yang dibubuhi pemanis serbuk daun stevia instan. Penelitian ini bertujuan memanfaatkan daun jambu biji kristal untuk pembuatan minuman fungsional yaitu teh. Penelitian ini memakai Rancangan Acak Lengkap (RAL) dengan faktor suhu pengeringan (50 °C, 65 °C, 80 °C) dan konsentrasi teh 1%, 5%, 10%). Analisis data sidik ragam (ANOVA) menyatakan kedua faktor berpengaruh terhadap sifat fisik dan kimia teh daun jambu biji kristal. Produk teh terpilih ada pada perlakuan A1B3 (50 °C:10 %) dimana kandungan kadar air 6,15 %, kadar abu 8,83 %, aktivitas antioksidan 45,3-61,3 %, dan nilai IC50 145,5.

Kata Kunci: Teh daun jambu kristal, Antioksidan, DPPH