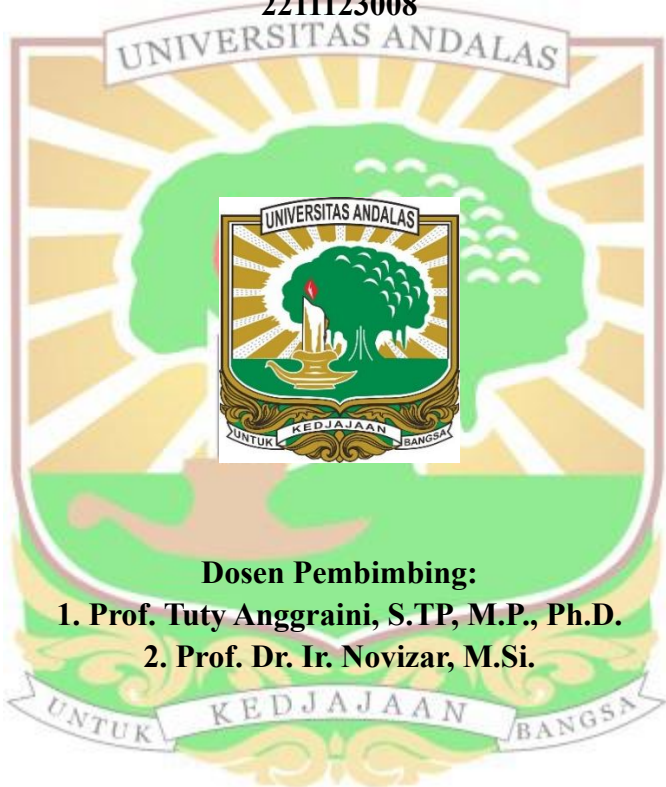


**KARAKTERISTIK SIRUP AREN (*Arenga pinnata*
Merr.) YANG DIHASILKAN DARI NIRA DENGAN
PENAMBAHAN BEBERAPA BAHAN ALAMI**

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**FAKULTAS TEKNOLOGI PERTANIAN
UNIVERSITAS ANDALAS
PADANG
2026**

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Ghefira Rahima Remelko, Tuty Anggraini, Novizar

ABSTRAK

Nira aren (*Arenga pinnata* Merr.) merupakan bahan baku yang mudah mengalami penurunan mutu akibat aktivitas mikroorganisme selama penyadapan. Penelitian ini bertujuan untuk menganalisis karakteristik mutu fisik, kimia, dan mikrobiologis sirup aren dengan penambahan beberapa bahan alami selama proses penyadapan serta menentukan perlakuan terbaik berdasarkan parameter yang diamati. Penelitian menggunakan tujuh perlakuan, yaitu tanpa bahan alami, daun manggis, kulit buah manggis, kulit batang manggis, daun sirih, daun jambu biji, dan akar kawao. Bahan alami sebanyak 15 g dimasukkan ke dalam bumbung penampung selama penyadapan. Sirup aren yang dihasilkan dianalisis berdasarkan parameter warna, total padatan terlarut (TPT), pH, gula pereduksi, kadar sukrosa, total polifenol, aktivitas antioksidan, dan Angka Lempeng Total (ALT). Hasil penelitian menunjukkan bahwa penambahan bahan alami selama penyadapan menghasilkan variasi karakteristik mutu sirup aren. Perlakuan akar kawao menghasilkan kadar sukrosa tertinggi sebesar 64,28%, aktivitas antioksidan tertinggi sebesar 33,98%, dan nilai ALT terendah sebesar $3,9 \times 10^2$ CFU/mL. Berdasarkan parameter yang diamati, perlakuan akar kawao menunjukkan karakteristik mutu terbaik dibandingkan perlakuan lainnya.

Kata kunci: sirup aren, nira aren, bahan alami, karakteristik fisikokimia

CHARACTERISTICS OF PALM SUGAR SYRUP (*Arenga Pinnata* MERR.) PRODUCED FROM PALM SAP WITH THE ADDITION OF VARIOUS NATURAL INGREDIENTS

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ABSTRACT

Palm sap (*Arenga pinnata* Merr.) is a raw material that is highly susceptible to quality deterioration due to microbial activity during the tapping process. This study aimed to analyze the physical, chemical, and microbiological characteristics of palm syrup produced from palm sap with the addition of several natural materials during the tapping process and to determine the treatment that produced the best quality characteristics based on the observed parameters. The study consisted of seven treatments, namely without natural material addition, mangosteen leaves, mangosteen fruit peel, mangosteen stem bark, betel leaves, guava leaves, and kawao roots. Each natural material (15 g) was placed into the bamboo container during the palm sap tapping process. The resulting palm syrup was analyzed based on color, total soluble solids (TSS), pH, reducing sugar content, sucrose content, total polyphenol content, antioxidant activity, and Total Plate Count (TPC). The results showed that the addition of natural materials during tapping produced variations in the quality characteristics of palm syrup. Kawao root treatment showed the highest sucrose content (64.28%), the highest antioxidant activity (33.98%), and the lowest TPC value (3.9×10^2 CFU/mL). Based on the observed parameters, kawao root treatment produced the best quality characteristics compared with other treatments.

Keywords: *palm syrup, palm sap, natural materials, physicochemical characteristics*