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ABSTRAK

Peningkatan kesadaran masyarakat tentang gaya hidup sehat mendorong pergeseran pola konsumsi menuju makanan fungsional yang bergizi. Sari kacang hijau memiliki potensi menjadi minuman fungsional kemasan karena kandungan gizi kacang hijau, seperti protein nabati, serat, vitamin, dan antioksidan. Namun, produk kemasan yang tersedia di pasaran umumnya mengandung kadar gula yang tinggi, yang dapat mengurangi nilai fungsional dan manfaat kesehatannya. Kurma Sukkari berpotensi sebagai pemanis alami karena kaya glukosa, fruktosa, serat, antioksidan, vitamin, kalium, dan magnesium. Tujuan dari penelitian ini antara lain menganalisis pengaruh penambahan konsentrasi kurma Sukkari dan konsentrasi CMC terhadap kualitas fisik, kimia dan sensoris minuman sari kacang hijau, serta menganalisis pengaruh lama penyimpanan terhadap karakteristik fisik dan kimia sari kacang hijau. Penelitian ini dilakukan menggunakan Rancangan Acak Lengkap (RAL) yang terdiri dari 3 faktor perlakuan yaitu konsentrasi kurma (12%, 10%, 8%), konsentrasi penstabil (0,002%, 0,004%) dan lama penyimpanan (0, 1, 2, 3, 4) hari. Parameter yang dianalisis yaitu viskositas, warna, derajat Brix, keasaman total, *turbidity*, total padatan terlarut dan sensoris. Kurma Sukkari dapat meningkatkan viskositas, nilai a^* pada warna, *turbidity*, derajat Brix, keasaman total, TPT dan sensoris. Konsentrasi penstabil CMC dapat meningkatkan viskositas, *turbidity*, keasaman total, dan TPT, namun cenderung tidak berpengaruh terhadap sensoris. Lama penyimpanan berpengaruh meningkatkan nilai viskositas, *turbidity*, keasaman total, dan TPT, namun menurunkan derajat Brix karena dimanfaatkan oleh mikroorganisme selama penyimpanan.

Kata kunci : CMC, kacang hijau, kurma Sukkari, stabilitas penyimpanan

MEIDA IZZADATUL BUKHORI. NIM 210331100113. *Physical, Chemical, and Sensory Characteristics of Green Bean Juice with Added Sukkari Dates and Carboxymethyl Cellulose During Storage.* Under the guidance of **Nurmalisa Lisdayana, S.TP., M.Si** and **Prof. Ir. Umi Purwandari, M.App.Sc.,Ph.D.**

ABSTRACT

Increased public awareness of healthy lifestyles is driving a shift in consumption patterns toward nutritious functional foods. Green bean juice has the potential to become a packaged functional beverage due to the nutritional content of green beans, such as plant-based protein, fiber, vitamins, and antioxidants. However, packaged products available on the market generally contain high levels of sugar, which can reduce their functional value and health benefits. Sukkari dates have the potential as a natural sweetener due to their high content of glucose, fructose, fiber, antioxidants, vitamins, potassium, and magnesium. The objectives of this study include analyzing the effect of adding Sukkari date concentration and CMC concentration on the physical, chemical, and sensory quality of green bean juice, as well as analyzing the effect of storage duration on the physical and chemical characteristics of green bean juice. This study was conducted using a Completely Randomized Design (CRD) consisting of three treatment factors: date palm concentration (12%, 10%, 8%), stabilizer concentration (0.05%, 0.1%), and storage duration (0, 1, 2, 3, 4) days. The parameters analyzed were viscosity, color, sugar content, total acidity, turbidity, total dissolved solids, and sensory characteristics. Sukkari dates can increase viscosity, color value (a^*), turbidity, Brix degree, total acidity, TPT, and sensory characteristics. CMC stabilizer concentration can increase viscosity, turbidity, total acidity, and TPT, but tends not to affect sensory properties. Storage duration affects viscosity, turbidity, total acidity, and TPT, but reduces Brix degree as it is utilized by microorganisms during storage.

Keyword : CMC, Green beans, Sukkari dates, storage stability