

ABSTRAK

Pengaruh Penambahan Ekstrak Tauge dan Air Jeruk Lemon Terhadap Kualitas Nata Berbahan Dasar Kulit Semangka (*Nata de Citrullus*)

(Rahayu Cahya Pratiwi, 2024, 48 Halaman, 7 Tabel, 16 Gambar, 4 Lampiran)

Kulit semangka adalah hasil samping dari konsumsi buah semangka yang belum dimanfaatkan secara optimal. Kulit semangka mengandung berbagai macam vitamin, mineral, antioksidan, air, lemak, serat dan karbohidrat. Kandungan karbohidratnya berpotensi dijadikan bahan baku dalam pembuatan nata. Penelitian ini bertujuan menentukan pengaruh penambahan ekstrak tauge dan air jeruk lemon terhadap kualitas *nata de citrullus*. Kualitas nata dipengaruhi oleh pH media, ketersediaan oksigen, sumber nitrogen, sumber karbon, lama waktu fermentasi, dan kondisi lingkungan. *Nata de citrullus* dibuat dengan perbandingan kulit semangka dan air 1:2 dengan penambahan ekstrak tauge (1%, 1,5%), air jeruk lemon (1%, 2%, 3%, 4%, 5%), gula 25 gr dan *Acetobacter xylinum* sebanyak 1000 mL. Dari hasil penelitian kondisi terbaik yaitu pada konsentrasi ekstrak tauge 1,5% dan konsentrasi air jeruk lemon 3% dengan pH 4,1, ketebalan 1,2763 cm, Rendemen 73,8197 %, Kadar air 86,0988% dan Kadar serat 3,6350%.

Kata kunci: Ekstrak Tauge, Kulit Semangka, Lemon, *Nata de Citrullus*

ABSTRACT

Effect of Bean Sprout Extract and Lemon Juice Addition on The Quality of Watermelon Rind Based Nata (Nata de Citrullus)

(Rahayu Cahya Pratiwi, 2024, 48 Pages, 7 Tables, 16 Pictures, Attachments 4)

Watermelon rind is a by product of watermelon consumption that has not been optimally utilized. Watermelon rind contains various vitamins, minerals, antioxidants, water, fat, fiber and carbohydrates. The carbohydrate content has potential to be used as raw material into nata. The study aims to determine the effect of the addition of bean sprout extract and lemon juice on the quality of nata de citrullus. The quality of nata can be seen by the pH of the media, oxygen, nitrogen sources, carbon sources, fermentation duration and environmental conditions. Nata de citrullus was made with ratio of watermelon rind and water 1:2 with the addition of bean sprout extract (1%, 1,5%), lemon juice (1%, 2%, 3%, 4%, 5%), 25 g sugar and *Acetobacter xylinum* as much as 1000 mL. From the results of the research, the best condition is at a bean sprout extract concentration of 1,5% and a lemon concentration of 3% with a pH of 4,1, thickness 1,2763 cm, yield 73,8197 %, moisture content 86,0988%, fiber content 3,6350%.

Keywords: *Bean Sprout Extract, Watermelon Rind, Lemon, Nata de Citrullus*