

KAJIAN SIFAT FISIK, KIMIA DAN TINGKAT KESUKAAN *NATA DE WHEY*

INTISARI

Nata adalah makanan hasil fermentasi berbentuk gel, padat, kokoh, kuat, putih, dan kenyal yang mengapung pada permukaan media yang mengandung gula dan asam. *Nata* dihasilkan oleh aktivitas bakteri *Acetobacter xylinum*. Penelitian ini menggunakan limbah cair keju (*whey*) sebagai media inokulasi serta ekstrak kecambah kacang kedelai sebagai sumber nitrogen dengan kualitas *foodgrade*. Tujuan penelitian ini adalah membuat *nata de whey* dan mengetahui pengaruh penambahan sukrosa dan ekstrak kecambah kacang kedelai terhadap sifat fisik, kimia dan tingkat kesukaan *nata*. Pada penelitian ini dibuat *nata* berbahan dasar limbah cair keju (*whey*) dengan perlakuan penambahan gula 0,5%, 0,75% dan 1% b/v serta penambahan ekstrak kecambah kacang kedelai 10%,15% dan 20% v/v. *Nata* yang dihasilkan dilakukan pengujian fisik meliputi jumlah rendemen, ketebalan dan kekerasan. Pengujian kimia meliputi kadar air dan kadar abu. Serta pengujian tingkat kesukaan. Data yang diperoleh dilakukan uji statistik menggunakan rancangan acak lengkap (RAL), apabila terdapat data yang berbeda maka dilanjutkan uji DNMRT (*Duncan New Multi Range Test*) pada tingkat kepercayaan α 5%. Hasil penelitian menunjukkan bahwa semakin besar penambahan sukrosa dan ekstrak kecambah kacang kedelai maka jumlah rendemen, ketebalan, kadar air, kadar abu dan kekerasan *nata* semakin meningkat, sedangkan tingkat kesukaan terhadap *nata* semakin menurun. *Nata* yang paling disukai diperoleh dari pembuatan dengan perlakuan penambahan ekstrak kecambah kacang kedelai 20% dan sukrosa 0,75%. Hasil pengujian menunjukkan jumlah rendemen 64,70%, tebal 1,45 cm, kekerasan 129,25 g, kadar air 95,71%, kadar abu 0,76%.

Kata kunci : *Nata de whey*, sukrosa, kecambah kacang kedelai.

STUDY OF PHYSICAL, CHEMICAL PROPERTIES AND PREFERENCES LEVEL OF NATA DE WHEY

ABSTRACT

Nata is the fermented food with the form is gel, solid, sturdy, strong, white, and chewy that floats on the surface of a medium containing with the sugar and acid. Nata was produced by *Acetobacter xylinum* bacterium activity. This study used the cheese wastewater (whey) as an inoculation medium and the soybean sprout extract as a source of foodgrade quality. The purpose of this study is to make the nata de whey and determine the effect of the addition of sucrose and soybean sprouts extract on the physical, chemical and level of preference of nata. In this research, the ingredients were made based on cheese wastewater (whey) with added sugar treatment 0.5%, 0.75% and 1% b / v and the soybean sprout extract 10%, 15% and 20% v / v. Nata produced is done by physical testing including yield, thickness and hardness. Chemical testing includes moisture content and ash content. As well as testing the level of preference. The data obtained were statistically tested using a completely randomized design, if there were different data then continued the DNMRT (Duncan New Multi Range Test) at a level of confidence of 5%. The results showed that the greater addition of sucrose and soybean sprouts extract, the amount of yield, thickness, moisture content, ash content and nata hardness increased, while the level of preference for nata decreased. The most preferred nata was obtained from the preparation by adding 20% soybean sprout extract and 0.75% sucrose. The test results showed that the yield amount was 64.70%, 1.45 cm thick, 129.25 g hardness, 95.71% moisture content, 0.76% ash content.

Keywords: Nata de whey, sucrose, soybean sprouts.