INTISARI

Susu kedelai dapat dibuat menjadi yogurt yang merupakan minuman probiotik. Penambahan ekstrak daun kelor meningkatkan potensi yogurt susu kedelai sebagai sumber antioksidan. Tujuan penelitian ini adalah untuk mengetahui pengaruh penambahan ekstrak daun kelor dan susu skim terhadap sifat kimia, aktivitas antioksidan dan tingkat kesukaan yogurt kedelai.

Penelitian ini dilakukan dengan membuat yogurt berbahan baku dari susu kedelai. Mikroba yang digunakan pada pembuatan yogurt adalah *Lactobacillus bulgaricus* dan *Streptococcus thermophilus* (1:1) diinkubasikan selama 12 jam pada suhu 37°C. Susu skim ditambahkan dengan konsentrasi 3%, 5%, dan 7% (b/v). Yogurt yang diperoleh ditambah ekstrak daun kelor sebanyak 3%, 5% dan 7% (v/v). Yogurt hasil penelitian dilakukan uji kadar air, zat padat terlarut, pH, aktivitas antioksidan, bakteri asam laktat (BAL), dan tingkat kesukaan. Data yang diperoleh dilakukan uji statistik dengan metode ANOVA (*Analysis Of Variance*), apabila ada perbedaan nyata antar perlakuan dilanjutkan dengan uji beda nyata DMRT (*Duncan's Multiple Range Test*) pada tingkat kepercayaan 95%.

Hasil penelitian menunjukkan penambahan ekstrak daun kelor dan susu skim mempengaruhi kadar air, zat padat terlarut, pH, aktivitas antioksidan dan tingkat kesukaan yogurt kedelai. Yogurt kedelai dengan penambahan ekstrak daun kelor 5% dan susu skim 5% merupakan variasi terbaik. Yogurt kedelai tersebut memiliki kadar air 87,60%bb; zat padat terlarut 7,3%bb; pH 4,35; aktivitas antioksidan 57,75%RSA; dan total bakteri asam laktat (BAL) $1{,}32 \times 10^9$ cfu/ml

Kata kunci: aktivitas antioksidan; yogurt susu kedelai; ekstrak daun kelor

CHARACTERISTICS OF SOY MILK YOGURT WITH VARIETY OF SKIM MILK ADDITION AND MORINGA *(Moringa oleifera* L.*)* LEAVES EXTRACT ADDITION

ABSTRACT

Soy milk can be made into yogurt which is a probiotic drink. The addition of Moringa leaf extract will increases the potential of soy milk yogurt as the source of antioxidants. The purpose of this study was to ensure the effect of addition of Moringa leaf extract and skim milk on chemical properties, antioxidant activity and the favorite level of soy yogurt.

This research was conducted by making yogurt from soy milk. Microbes that used in making yogurt are *Lactobacillus bulgaricus* and *Streptococcus thermophilus* (1:1) incubated for 12 hours at 37 °C. Skim milk was added with concentrations of 3%, 5%, and 7% (b/v). The yogurt which is obtained was added by Moringa leaf extract as much as 3%, 5% and 7% (v/v). The results of the research were tested for water content, solid content, pH, antioxidant activity, lactic acid bacteria (LAB), and levels of preference. It was carried out statistical tests using the method of ANOVA (Analysis Of Variance), if there were significant differences between treatments followed by the Duncan 's Multiple Range Test at a 95% confidence level.

The results showed the addition of Moringa leaf extract and skim milk affected water content, solid content, pH, antioxidant activity and the level of preference for soy yogurt. Soybean yogurt with the addition of 5% Moringa leaf extract and 5% skim milk are best variation. The soybean yogurt has a water content of 87,60%wb; dissolved solids 7,63%wb; pH 4,35; antioxidant activity 57,75% RSA; and total lactic acid bacteria (LAB) $1,32 \times 10^9$ cfu / ml.

Keywords: antioxidant activity; moringa leaf extract; soy milk yogurt