

PENGARUH PENAMBAHAN MADU *Trigona sapiens* DAN LAMA FERMENTASI TERHADAP VIABILITAS BAL DAN MUTU YOGHURT JAGUNG MANIS

*THE EFFECT OF ADDING *Trigona sapiens* HONEY AND FERMENTATION TIME ON VIABILITY OF LAB AND THE QUALITY OF SWEET CORN YOGHURT*

Sabrina Samimi¹⁾, Sri Widyastuti²⁾, Mutia Devi Ariyana³⁾

¹⁾Mahasiswa Fakultas Teknologi Pangan dan Agroindustri, Universitas Mataram, Nusa Tenggara Barat

²⁾Staff pengajar kultas Teknologi Pangan dan Agroindustri, Universitas Mataram, Nusa Tenggara Barat
*email: sriwidyastuti@unram.ac.id

ABSTRACT

*Sweet corn can be used as an alternative raw material for yoghurt. The purpose of this study was to determine the effect of the concentration of *Trigona sapiens* and duration of fermentation on the viability of Lactic Acid Bacteria (LAB) and the quality of sweet corn yogurt. This study used a Completely Randomized Design (CRD) with two factors, first factor was concentration of honey 0 and 10% and combined with the second factor was fermentation time (0 hours, 8 hours, and 18 hour). Observed data were analyzed using analysis of variance (Analysis of Variance) at 5% significance level using Co-Stat software and with the Tukey's-HSD at the 5% level. The parameters observed included total LAB, viability of LAB, pH value, and sensory properties. The treatment with 10% honey added and 8 hours duration of fermentation was the best treatment with total LAB 11,35 log CFU/ml, LAB probiotic viability just decreased 0,35 log CFU/ml, pH value 3,4, and the criteria for sensory properties of smell, taste and color preferred by fanelists were slightly sweet corn-scented, slightly sour and most yellow in color.*

Keywords :fermentation time, sweet corn yoghurt, *Trigona sapiens* honey

Jagung manis dapat dimanfaatkan sebagai alternatif bahan baku yoghurt. Tujuan dari penelitian ini untuk mengetahui pengaruh penambahan madu *Trigona sapiens* dan lama fermentasi terhadap viabilitas Bakteri Asam Laktat (BAL) serta mutu yoghurt jagung manis. Penelitian ini menggunakan metode Rancangan Acak Lengkap (RAL) dua faktor yakni penambahan madu 0 dan 10% dan lama fermentasi 0, 8 dan 12 jam. Data hasil pengamatan dianalisis menggunakan analisis keberagaman (*Analysis of Variance*) pada taraf nyata 5% menggunakan software *Co-Stat* dan dengan Uji Lanjut Beda Nyata Jujur (BNJ) pada taraf 5%. Parameter yang diamati meliputi total BAL, viabilitas BAL, nilai pH, dan sifat sensoris. Perlakuan terbaik pada penelitian ini diperoleh pada penambahan madu 10% dan lama fermentasi 8 jam menghasilkan yoghurt jagung manis dengan total BAL 11,35 log CFU/ml, viabilitas BAL hanya mengalami penurunan 0.35 log CFU/ml, nilai pH 3.93, dan sifat sensoris berupa aroma, rasa dan warna agak disukai disukai oleh panelis dengan masing-masing kriteria agak beraroma jagung manis, agak berasa asam dan berwarna sangat kuning.

Kata kunci :lama fermentasi, madu *Trigona sapiens*, yoghurt jagung manis