

PENGARUH METODE PENAMBAHAN COKELAT PROBIOTIK TERHADAP VIABILITAS SEL, SIFAT FISIK DAN SENSORIS GRANOLA BAR BERBASIS PANGAN LOKAL

INTISARI

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Tren mengonsumsi camilan yang bermanfaat bagi kesehatan tubuh meningkat selama pandemi. Hal tersebut mendorong adanya pengembangan produk camilan yang praktis dan menyehatkan seperti *granola bar* probiotik yang terbuat dari kacang-kacangan, buah-buahan dan sereal yang disatukan dengan *binder* atau bahan pengikat. Untuk meningkatkan manfaatnya bagi kesehatan, *granola bar* dikombinasikan dengan cokelat probiotik.

Telah diformulasi *granola bar* dari berbagai bahan pangan lokal dengan penambahan cokelat probiotik *Lactobacillus plantarum* Dad-13 menggunakan metode salut (P1) dan isian (P2). Kedua sampel dianalisis secara mikrobiologis dengan uji viabilitas sel probiotik selama penyimpanan, analisis sifat fisik dengan uji kekerasan dan aktivitas air (a_w), serta analisis sifat sensoris dengan uji deskriptif dan kesukaan.

Hasil penelitian dengan uji *t-test* menunjukkan bahwa uji kesukaan terhadap kekerasan, kemanisan dan keremahan, serta uji fisik aktivitas air (a_w) kedua metode tidak berbeda signifikan, tetapi pada uji deskriptif menunjukkan atribut kekerasan kedua sampel berbeda signifikan. Hal tersebut sejalan dengan uji fisik kekerasan. Metode penambahan cokelat probiotik *Lactobacillus plantarum* Dad-13 pada *granola bar* memberikan pengaruh signifikan terhadap stabilitas viabilitas sel probiotik selama 14 hari pada metode salut dan 21 hari pada metode isian cokelat probiotik penyimpanan suhu $26 \pm 1^\circ\text{C}$, serta 28 hari pada kedua metode dengan penyimpanan suhu $10 \pm 1^\circ\text{C}$.

Kata Kunci : *granola bar*, cokelat probiotik, pandemi, metode salut dan isian

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THE EFFECT OF PROBIOTIC CHOCOLATE ADDITION METHOD ON CELL VIABILITY, PHYSICAL AND SENSORY PROPERTIES OF LOCAL FOOD-BASED GRANOLA BARS

ABSTRACT

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The trend of consuming snacks that are beneficial to the health of the body is increasing during the pandemic. This encourages the development of practical and healthy snack products such as probiotic granola bars made from nuts, fruits and cereals combined with binders or binders. To increase its health benefits, granola bars are combined with probiotic chocolate.

Granola bars have been formulated from various local food ingredients with the addition of *Lactobacillus plantarum* Dad-13 probiotic chocolate using the coated (P1) and filling (P2) methods. Both samples were analyzed microbiologically by testing the viability of probiotic cells during storage, analyzing physical properties by using hardness and water activity tests (a_w), as well as analyzing sensory properties by using descriptive and preference tests.

The results of the study using the t-test showed that the preference for hardness, sweetness and crumbliness, as well as the physical test of water activity (a_w) were not significantly different, but the descriptive test showed that the hardness attributes of the two samples were significantly different. This is in line with the physical test of violence. The method of adding *Lactobacillus plantarum* Dad-13 probiotic chocolate to granola bars had a significant effect on the stability of probiotic cell viability for 14 days in the coated method and 21 days in the filling method of probiotic chocolate at $26\pm 1^\circ\text{C}$, and 28 days in both methods with storage at $10\pm 1^\circ\text{C}$.

Keywords: granola bar, probiotic chocolate, pandemic, coating and filling method

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