

TEXTURAL CHARACTERISTICS AND COLOUR OF FRESH CHEESE OBTAINED BY KOMBUCHA INOCULUM

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Abstract

Fresh cheese is an unripened cheese. Novel researches have shown that kombucha inoculum can be cultivated as a non-conventional starter culture and used for the production of fermented milk products. The aim of this study was to investigate the textural characteristics and colour of fresh cheese produced by kombucha inoculum.

Fresh cheese samples were produced in laboratory conditions. The fresh cheese samples were manufactured with kombucha inoculum. Kombucha was cultivated on black tea sweetened with saccharose. After coagulation (pH = 4.6 ~ 4.7), the coagulum was cut, pasteurized by gently stirring at 60 °C (5 min.), quickly cooled (25 °C) and drained. Textural properties: firmness, work of shear, stickiness, work of adhesion of samples were measured by texture analyser TA.HDplus. The colour values are recorded as Y-brightness, λ -dominant wavelength, L-lightness, a-red/greenness and b-yellowness/blueness, using photoelectric tristimulus colourimeter.

Textural characteristics of kombucha fresh cheese sample were as follows - firmness: 3398.85g, work of shear: 4003.38 gsec, stickiness: -1612.65 g, work of adhesion: -100.930 gsec. Our results revealed better textural characteristic of kombucha fresh cheese compared with fresh cheeses obtained by traditional starter cultures. The colour value (Y-brightness) of the kombucha fresh cheese sample was $Y = 64.15 \pm 0.91\%$, while its dominant wavelength was $\lambda = 575.94 \pm 0.13$ nm.

Fresh cheese sample was produced by applying non-conventional starter culture (kombucha inoculum). This investigation proves that starter culture has significantly positive affect on textural characteristics of the final product.

Key words: *Kombucha, Fresh cheese, Textural characteristics, Colour.*