

## The Relations of Volatile Compounds, Some Parameters and Consumer Preference of Commercial Fermented Milks in Thailand

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**Abstract :** The aim of research was to define the relations between volatile compounds, some parameters (pH, titratable acidity (TA), total soluble solid (TSS), lactic acid bacteria count) and consumer preference of commercial fermented milks. These relations tend to be used for controlling and developing new fermented milk product. Three leading commercial brands of fermented milks in Thailand were evaluated by consumers (n=71) using hedonic scale for four attributes (sweetness, sourness, flavour, and overall liking), volatile compounds using headspace-solid phase microextraction (HS-SPME) GC-MS, pH, TA, TSS and LAB count. Then the relations were analyzed by principal component analysis (PCA). The PCA data showed that all of four attributes liking scores were related to each other. They were also related to TA, TSS and volatile compounds. The related volatile compounds were mainly on fermented produced compounds including acetic acid, furanmethanol, furfural, octanoic acid and the volatiles known as artificial fruit flavour (beta pinene, limonene, vanillin, and ethyl vanillin). These compounds were provided the information about flavour addition in commercial fermented milk in Thailand.

**Keywords :** fermented milk, volatile compounds, preference, PCA

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