



Thesis Abstract

Acidity and Flavor of Fermented Durian (Tempoyak)

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The study evaluated the biochemical changes that occur during fermentation of durian (*tempoyak*). *Tempoyak* is fermented food made by mixing durian pulp with salt in a sealed container for seven days. Information on how fermentation might affect the flavor and acidity of *tempoyak* is sparse, hence this study.

Results showed that the most organic acid found in *tempoyak* was malic acid (145.9 mg/ml), followed by lactic acid (34.1 mg/ml), and small amounts of acetic acid (14.2 mg/ml). A rapid range in pH ranging from pH 6.9-7.0 to 4.0-4.15 was observed at four days after fermentation. This change was attributed to significant increase in titrable acidity, non-volatile acid, and volatile acid. Flavor examination revealed that *tempoyak* components were dominated by sulfur compounds, namely: diethyl tyrisulfide, disulfide diethyl, and ethane, 1-1-bis ethylthio.