

## Rhizopus Oryzae as a processing Starter in Fermentation of Unripened Cheese

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### Abstrak

*Rhizopus oryzae* is known to produce lactic acid, protease and lipase, make it potential as a starter in cheese production. However, *R. oryzae* application in the unripened cheese production has not been elucidated. In this research, microbiology and nutritional status of unripened cheese fermented by *R. oryzae* was analysed and compared to that of the cheese made by rennet as a control. Total Plate Count of bacteria in unripened cheese fermented by *R. Oryzae* was  $8.1 \times 10^8$  cfu/ml in PCA medium and  $3.7 \times 10^8$  cfu/ml in MRSA. Total Count of fungi group was conducted using PDA, resulting in  $1.2 \times 10^8$  cfu/ml. Dominant microflora were identified as *Eterococcus faecalis* and *Bacillus subtilis* in MRSA and *Aspergillus sp.* in PDA. HPLC analysis of the unripened cheese fermented by *R. oryzae* showed that it had higher essential amino acid content than the control. The essential amino acid found were Threonine (1,15 ppm), L-Methionine (0,47 ppm), L-Valine + L-Tryptophan (0,70 ppm), L-Phenylalanine (0,66 ppm), L-Isoleucine (0,48 ppm), L-Leucine (1,28 ppm), and L-Lycine (1,64 ppm).