Rhizopus oryzae a processing starter in fermentation of unripened cheese

Makhabbah Jamilatun

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 analyzed 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 X 10 cfu/ml in PCA medium and 3.7 X 10 cfu/ml in MRSA. Total count of funig group was conducted using PDA, resulting 1.2 X 10 cfu/ml. Dominant microflora were identified as enterococcus faecalis and bacillus subtilis in MRSA and Aspergillus sp. in PDA. HPLC analysis of the unripened cheese fermented by R. oryzae showed that in 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).