Studies on the Processing of Bitter Gourd Pickles

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Abstract

The deformed and defective bitter gourd were blanched with steam after conditioned and sliced, and then were inoculated with mixture culture after soaking in the solution contained NaCl and CaCl₂. For searching the suitable procedure of fermentation, the quality and micro- flora in bitter gourd were analyzed for 30 days. The results showed that the amount of acidity come to maximum after $3\sim4$ days fermented with pH decreased to 3.50, and the total count and *Lactobacillus* spp. increased to 3.8×10^8 CFU/ml and 9.0×10^6 CFU/ml, respectively. Besides the mixture culture grew well, lactic acid produced faster, outgrowth of *Coliform* and yeast was also inhibited in the peroid of initial fermentation. After 5 days of fermentation, the yeast and mold outgrowth become active gradually, and the color and texture of bitter gourd decayed seriously, too.

The data obtained from different states of fermentation have been evaluated, and the procedure for fermented bitter gourd was built. It included that bitter gourd blanched for 1 minute with steam were soaked in the solution dissolved 2 % NaCl and 0.25 % CaCl₂ followed by inoculated 2.5 % mixture culture of *Lactobacillus* spp., and then fermented for 3~4 day at room temperature. In order to maintain the quality of fermented bitter gourd, they were vacuum packed and sterilized in water bath at 90

for 30 minute or at 100 for 20 minute, and the micro-flora was not found even after one month of storage under room temperature.

Key words: Bitter gourd, Pure culture, Fermentation.

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