THE PRODUCTION AND PRESERVATION OF FERMENTED IMMATURE MUSKMELON (Cucumis melo L.)
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Summary
The aim of the research was to determine the basic parameters in the process of making fermented immature muskmelons (6÷-12 days old). Factors affecting the quality of lactic acid fermentation of muskmelon including NaCl concentrations, material size, mild heat pre-treatment conditions were surveyed in order to improve the textural characteristics and the quality of the product after fermentation. Besides, the method of product preservation was also performed. The results showed that after 12 days of fermentation in 4% NaCl solution, starting with the fruit whose mass ranges from 80 to 150 g each, the product obtained had good quality, color, and characteristic smell and flavor. Immature muskmelons were heated at 75°C for 3 minutes to help improve the textural characteristics of the product after fermentation (relative hardness H/Ho maintained 83.63% compared raw materials). The product which was refrigerated at a temperature of 4÷6°C in PA packages (85% vacuum) was capable of maintaining its quality in 8 weeks of storage, and the total number of aerobic bacteria was within the limit permissible by Vietnamese standards (Decision No 46/2007/ QD-BYT). Raw material consumption of fermented immature muskmelon was 1.24, or 1 kg of fresh muskmelon after fermentation produced 0.81 kg of product.

Keywords: Fermentation, material size, NaCl concentration, preservation, immature muskmelon, thermal pre-treatment.