ABSTRACT

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APPLICATION OF SODIUM CITRATE IN MAINTAINING QUALITY OF CATFISH (Pangasius nieuwenhuisi) FILLET DURING CHILLING STORAGE
(xiv + 96 pages : 4 tables; 14 figures; 12 appendices)

Catfish (Pangasius nieuwenhuisi) is one of freshwater fatty fish that is also perishable to spoilage. Preservation is needed to extend the shelf life of catfish fillet. Sodium citrate was used as a preservative in this research because it is easily found, cheap, safe, and applicable in food industry. This research was conducted to determine the effect of sodium citrate in preventing quality degradation caused by microbiological activity and enzymatic reaction. Catfish fillet was dipped in sodium citrate solution (0%, 2.5%, 5%) for 10 minutes and stored in refrigerator (4°C) for 15 days. Sodium citrate retained the sensory quality (texture, odor, color, and slime) up to 15 days, compared to control (0%) treatment which was 13 days. There was no significant physical changes and pH observed during storage. Microbiologically, change was measured by Total Plate Count analysis showed that catfish fillet could be kept until day-9 in three concentrations, however 2.5% had significantly lower total microba than control. Total Volatile Base Nitrogen (TVBN) and Trimethylamine (TMA) value were suppressed due to sodium citrate immersion.

Keywords : catfish, sodium citrate, preservation, storage