EFFECTS OF CALCIUM CHLORIDE SLURRY ICE ON SHELF LIFE OF FRESH WATER BARRAMUNDI (*Lates calcarifer*)

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PROJEK ILMIAH I DAN II

Adalah ini diakui dan disahkan bahawa laporan ilmiah bertajuk:

EFFECTS OF CALCIUM CHLORIDE SLURRY ICE ON SHELF-LIFE OF FRESH WATER BARRAMUNDI (Lates calcarifer)

oleh SITI HASMAH BT ABU HASAN, No. Matrik. UK13897 telah diperiksa dan semua pembetulan yang disarankan telah dilakukan. Laporan ini dikemukakan kepada Jabatan AGROTEKNOLOGI sebagai memenuhi sebahagian daripada keperluan memperolehi Ijazah Sarjana Muda SAINS AGROTEKNOLOGI (TEKNOLOGI LEPAS TUAI), Fakulti Agroteknologi dan Sains Makanan, Universiti Malaysia Terengganu.

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DECLARATION

I hereby declare that the work in this thesis is my own except for quotations and summaries which have been duly acknowledge.

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ABSTRACT

Barramundi (*Lates calcarifer*) farming is a significant sector of the aquaculture industry with production technology rivaling that found in the salmonid or kingfish species. It is evident however that one area of production, the final harvest stage, still has room for improvement to maintain the optimum quality of the farmed domestic product. There is considerable literature that suggests harvest methods involving stress and excessive exercise contribute significantly to final flesh quality in fish. In this study the effect of Calcium chloride slurry ice on the fish quality was evaluated in barramundi. The storage life of whole iced Barramundi were monitored by sensory and physically evaluation. Three different concentrations from calcium chloride; 1%, 2%, and 3% were used as combination with the slurry ice to preserve of the whole fresh water Barramundi under a controlled chiller storage at 1°C. While 0% of calcium chloride was serve as controlled. The examination of the physical evaluation were assesses by looking at its body firmness (texture), gill color and body color as well as eye color. Therefore, the possibility of the Calcium chloride 1% as a combination with slurry ice to extend the shelf life of freshwater Barramundi fish is very high, with only slightly effects on its qualities.

Keywords: calcium chloride slurry ice, barramundi, physical properties, shelf life.