

**QUALITY ASSURANCE
OF
DIFFERENT SHRIMP SPECIES
FOR EXPORT**

Ph.D. DISSERTATION

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Abstract : The main aim of this work is to study chemical hazard and biological hazard on shrimp species for export. The hazard analysis critical control point (HACCP) system is used for food safety and quality. To assess the quality of shrimp according to the HACCP system, this project is necessary to be carried out. Local shrimp samples collected from Ministry of Livestock and Fisheries and various private enterprises (companies) were determined for chemical compositions (protein content by macro-Kjeldahl method, moisture content by oven method, fat content by Soxhlet Extraction method, ash content by Muffle Furnace method), food additives and total volatile basic nitrogen content by distillation method, heavy metals by atomic absorption spectrometry, antibiotic residue, indicator (indole), non volatile amines (putrescine, cadaverine, histamine, spermidine, and spermine by high performance liquid chromatography, total fatty acids by gas chromatographic method and biological hazard by International Commission of Microbiological Specification for Food and Petrifilm method. Quality index of shrimp samples were correlated with freshness index so that the grade of shrimp samples can be decided to estimate excellent, good, and acceptable. All the size of shrimps such as extra large, large, medium were found to be excellent, good and acceptable respectively but some of the tiny size (off grade) of shrimp samples were probably found to be unacceptable. But, after proper cooking, it becomes edible.