NOTICE OF PUBLICATION

AQUACULTURE & FISHERIES INNOVATION LAB

RESEARCH REPORTS

Sustainable Aquaculture for a Secure Future

Title: **Quality Enhancement of Dried Snakehead Fish (*Channa striata*) by Supplementing Wine and Glycerol**

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The quality and safety of dried snakehead fish (*Channa striata*) on the local markets in Vietnam could not be controlled recently. Therefore improvement of this former processing is necessary concerned and conducted in order to obtain high quality of dried fish products as well as long-term storage to meet the diversified consumer taste. The study aims not only to assess the properties of dried snakehead fish (with sucrose addition) based on supplementing wine (30%) and glycerol into fish muscle but also to enhance the quality of dried fish products. Total plate count, chemical indices, and organoleptic evaluation were recorded to exam the changes of dried snakehead fish corresponding to 1, 2 and 3% (w/w) of wine (30%) addition. Then, the effects of adding glycerol (0, 1, 2, 3%, w/w) on dried snakehead fish with 2% of wine (w/w) were surveyed over a period of four weeks. As compared to the other treatments, addition of 2% (w/w) of glycerol and 2% (w/w) of wine (30%) to dried fish illustrated the highest sensory properties and the lowest parameters of total plate count, moisture content, water activity, peroxide value, total volatile base nitrogen in four weeks. In addition, these analyzed parameters were within acceptable limits. Therefore, the quality and safety of dried snakehead fish were obtained during storage time. The proximate composition of raw snakehead fish and dried products were also studied. The results showed that moisture, protein, lipid, ash and sodium chloride content of raw snakehead fish were 78.1, 18, 2.5, 1.14, 0.73% respectively, whereas those of dried products with wine and glycerol addition were 29.4, 58.9, 5.54, 5.49, 4.56%.

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