

A STUDY ON SOME QUALITY CHARACTERISTICS OF
FERMENTED TILAPIA FISH

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Tilapia mossambica is an important and inexpensive source of proteins to the those living away from the coastal regions. Attempts were made to preserve the fish by using solid common salt, saturated solutions of common salt alone and in combination with "Goraka" (Garcinia cambogia). The best preservative action was observed with a saturated salt solution containing "Goraka" on submerging the fish. Fish preserved for 8 years by this method were compared with the fresh Tilapia for several physical and chemical characteristics.

After 8 years of fermentation of fish in the above solution, decrease in crude protein content (19 to 15%), sarcoplasmic protein (5 to 4%), myofibrillar protein (10 to 5%), non-protein nitrogen (4 to 2%) and fat (1.8 to 1.2%) were observed. The moisture decreased from 79 to 64% and the ash increased from 2 to 16% due to osmotic effects and absorption of salt. The water holding capacity of the fish decreased from 43 to 31% and the pH of the solution decreased from 6.8 to 3.9. The tenderness of the fish as measured by the shear value increased from 0.9 to 2.4. The solution gained a crude protein content of 6.5%.

Although considerable loss of physical quality characteristics were observed after 8 years in the solution the fish did not decompose and remained hard and intact with the bones. Further studies on the application of this fermentation method for short term preservation of fish is suggested. The method may find useful application at village level.