

to use viscosity as freshness indicator could be a possible option.

AV PO 18

Effect of commercial additives on the quality of cuttlefish (*Sepia pharaonis*) under refrigerated condition

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Cephalopod is an important seafood variety exported from Gujarat, which contributes 8.81% of total marine landing in Gujarat. In cephalopods, cuttlefish are exported as frozen block or IQF product. The present work was intended to study the effect of commercial additive on the quality of cuttlefish (*sepia pharaonis*) under refrigerated storage condition. Samples were segregated into four lots viz. treated with salt (SP), with commercial additive hidramor-4 (EP), with salt and additive (ES) and the untreated (CF) to serve as control. The samples were frozen in Individual Quick Freezer consequently packed in multilayer film of EVOH pouches and held in refrigerated (5±1^oC) for further study. Samples were periodically analysed for the changes in sensory, biochemical and microbiological quality characteristics on day 1, 3, 6 and 9 under refrigerated storage condition. The initial TVBN and TMA values were 2.7- 3.0 mg/100 g and 1.7-2.0 mg/100 g respectively, and it increased progressively in all the samples with the time of storage. Total plate count, Enterobacteriaceae, H₂S producing bacteria and *pseudomonas sp* were analysed during storage. The initial count of Enterobacteriaceae, H₂S producing bacteria and *pseudomonas sp*. were 3.4-4

log for treated samples. This study revealed that additive increased the weight gain, tenderness compared to salt and untreated samples and it not influence in the shelf life during refrigerated storage.

AV PO 19

Biochemical quality assessment of commercially available dried fishes of Gujarat

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Biochemical quality of dry fish samples of Eel (*Congresox talabon*), Croaker (*Otolithes cuvieri*), Gold spotted anchovy (*Coilia dussumieri*), Bombay duck (*Harpodon nehereus*), Greater lizard fish (*Saurida tumbil*), Ribbon fish (*Lepturacanthus savala*), Horse Mackerel (*Megalaspis cordyla*) and Cat fish (*Arius dussumieri*) traditionally sun dried were collected from Veraval fish market, Gujarat during March to June, 2016. The biochemical quality parameter such as thiobarbituric acid (TBA), tri-methyl amine (TMA), total volatile base nitrogen (TVBN), free fatty acid (FFA), pH and moisture content were analysed as indices of spoilage. The pH and moisture content of the samples were ranged from 5.49 to 6.92 and 9.47 to 31.92%, respectively. The TBA values of the dry fish samples varied between 1.68 to 25.94 mg/malonaldehyde and all the samples had more than 2 mg of TBA number except for Greater lizard fish. The TMA (mg%) values were found high (more than 15%) in all the dried fish samples except cat fish (13.33). The TVBN values of the samples varied between 25.89 to 128.34