

EFFECT OF ADDING SODIUM BICARBONATE TO BRINE SOLUTIONS FOR SMOKED RAINBOW TROUT (*ONCORHYNCHUS MYKISS*) QUALITY CHANGES DURING REFRIGERATED STORAGE

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In this study, it was evaluated the effect of adding (1%, 3%) sodium bicarbonate (SBC) to brine solutions on smoked rainbow trout fillets. (*Oncorhynchus mykiss*). Assessment of chemical, physical and sensory changes of smoked trout during refrigerated storage. As a control group, the fillets immersed in brine (10% NaCl) at a ratio of 1:1.5 (w/w) and adding sodium bicarbonate (1% and 3%) to brine solutions for 3 h at 4°C, then heated smokehouse at 85–90°C for 90 min, smoked at 70–80°C using smoke which was produced from oak sawdust. Smoked fillets vacuum packaged and stored in refrigerator at 4±2°C for 42 days. As a result of this study, a significantly increased in, TVB-N, pH and Tba, pv values for all groups during storage. The highest TVB-N value was obtained for 10% NaCl (the control), 1% and 3% were (33.054, 28.88 and 26.93, mg 100 g⁻¹ respectively) at the end of storage. Based on the sensory parameters assessment of colour, odour, flavour, and general acceptability for all groups were observed to display a decrease from the initial high quality with storage time. Results of colorimetric measurements The highest levels of a, and b values were found in the control group, while the 3% SBC added group had the lowest level of a, b. L values of group 1% and 3% were significantly lower (P<0.05) than control group. The lowest and highest L Value were obtained from control and 3% SBC group at the last and first day of storage (50.08 and 79.26, respectively).

Keywords: Smoked, rainbow trout, refrigerated storage, sodium bicarbonate

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