

## **Effect of brining prior to dry salting on the weight yield and the quality of salted dried Atlantic herrings (*Clupea harengus*)**

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Salting is a traditional preservation method used in fish product processing. There are different salting methods practiced around the world. The aim of the present study was to find out the effect of brining on the weight yield and the quality of salted dried Atlantic herring fillets. Two groups of herring fillets were used in this study. First group of herring fillets were brined using 20% brine for 24 hours before dry salting and the second group of fish fillets were subjected to single dry salting. Samples were collected from fresh, after brining, during dry salting and after desalting, for the analysis of Moisture,  $a_w$ , Protein, weight yield, pH and colour changes.

Brining causes an increase in the yield and the salt content in fish fillets and a decrease in moisture,  $a_w$  and protein significantly ( $p < 0.05$ ). Brining also leads to a reduction in the whiteness, yellowness and redness of the fish fillets comparatively to the fresh fillets. No significant differences ( $p > 0.05$ ) in salt and moisture content between the two treatments after 27 days of dry salting was observed. However, there was a significant ( $p < 0.05$ ) increase in the protein yield, weight yield, whiteness and the yellowness in pre brined herring fillets compared to the single dry salting method. After the desalting step, there was no significant difference ( $p > 0.05$ ) of the moisture,  $a_w$ , whiteness and the redness in both groups. But there was a significant ( $p < 0.05$ ) increase in the weight yield and the protein yield in pre-brined fish fillets. Sensory evaluation proved there were no significant ( $p > 0.05$ ) differences in the texture, flavor and the taste between the two groups.

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