Salted herring brine as a coating or additive for herring (Clupea harengus) products — A source of natural antioxidants? - DTU Orbit (10/11/2019)

Salted herring brine as a coating or additive for herring (Clupea harengus) products — A source of natural antioxidants?
The objective of this study was to characterise herring brine and assess its use as natural antioxidant in herring preservation. Herring brines from different marinated products (brine from fillet-ripened spice-cured herring SC, traditional barrel-salted spice-cured herring TSp and brine from traditional barrel-salted herring TSa) were used without any pretreatment or with a previous pH adjustment, and tested either as coating agents (glazing) for frozen herring or additives in fresh mince herring, in order to prevent oxidation.

TSa and TSp were the most effective glazing agents, retarding lipid oxidation. Brines tested as additive retarded lipid and protein oxidation in a similar trend than herring mince containing salt and/or protein. SC brine was more efficient against lipid and protein oxidation when compared to the other tested brines.

Using protein fractions isolated from herring marinating brines as glazing or additive seems feasible for preventing oxidation of both frozen and fresh herring.

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