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Czech J. Food Sci.

**J. Pena, M. Trigo, G.
Bouzada, D.**

**Fernández, J. Barros-
Velázquez, S. P.
Aubourg:
Chemical Changes in
Chilled Farmed Sea
Bass (*Dicentrarchus
labrax*): Effect of
Advanced Icing
Conditions**

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S279

The present research was focused on the commercialisation of fresh farmed sea bass (*Dicentrarchus labrax*). A slurry ice prototype (60% water/40% ice) coupled to an ozone generator (700 mV, 0.17 mg/l) was tested for the slaughtering and chilling storage (up to 7 days) of this species; comparison with slurry ice treatment alone was undergone. The study was addressed to chemical constituent changes (autolysis, lipid hydrolysis and oxidation, volatile amine formation) in fish muscle related to quality

loss; comparison to sensory assessment (skin, eyes, external odour, gills, consistency) was carried out. Increasing values ($P < 0.05$) with icing time could be observed for autolysis (K value assessment), lipid hydrolysis (free fatty acid formation) and microbiological activity (trimethylamine formation); however, no effect ($P > 0.05$) of icing time on lipid oxidation (primary and secondary compounds) could be depicted.

Concerning differences between both icing conditions, a lower ($P < 0.05$) free fatty acid formation was concluded for individuals kept under slurry ice-ozone condition. For both icing conditions, acceptable sensory quality was accorded at day 7, being scores better (eyes and gills) in the case of fish where ozone was incorporated to slurry ice.

Keywords:

sea bass; slurry ice; ozone; microbial activity; autolysis; lipid damage

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