

**Title** Quality of superchilled vacuum packed Atlantic salmon (*Salmo salar*) fillets stored at -1.4 and -3.6 °C

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#### **Abstract**

The most important factor for increasing shelf life is the product temperature, and since fish is more highly perishable than meat, the temperature is even more important. In the present study, portions of fillets of farmed Atlantic salmon (*Salmo salar*) were superchilled at two temperature levels,  $-1.4$  and  $-3.6$  °C. Texture, drip loss, liquid loss, cathepsin activities and protein extractability were investigated during storage and compared to ice chilled and frozen references. Drip loss was not a major problem in superchilled salmon. Textural hardness was significantly higher in superchilled salmon fillets stored at  $-3.6$  °C compared to those stored at  $-1.4$  °C, ice chilled and frozen references. Cathepsins B and B + L were not deactivated at the selected storage temperatures. The storage time of vacuum packed salmon fillets can be doubled by superchilled storage at  $-1.4$  °C and  $-3.6$  °C compared to ice chilled storage.