

## The effect of glazing on texture and sensory properties of Alentejano pig meat

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The Glazing process is usual in sea food preservation and remarkably slows the occurrence of rancid by oxidation, due to the weak solubility of oxygen in ice, decreasing the occurrence of protein denaturation (Zoldos et al., 2011). Besides, water losses decrease, influencing texture and sensory characteristics.

The aim of this study is to assess the effect of glazing meat from “Alentejano” (a Portuguese breed) pigs on meat texture measured by Warner-Bratzler shear force (WBSF), and sensory evaluation. Commercial cuts, obtained from the latissimus dorsi muscle were submitted to a glazing process that consists in the application of a protective layer of ice, formed on the surface of a frozen food through the immersion in clean water. The meat, packaged in a plastic film, was maintained at -21 °C, humidity of 100 %, until the samples are collected. Two conditions were compared, namely, glazed meat and control (meat that was not glazed), at two different times: 0 and 6 months. Texture analysis, namely WBSF, was performed according to the protocol of Caine et al., (2003), while sensory evaluation was carried out using a trained panel and a special room following the International standards (ISO 8586-1, 1993; ISO 8589, 2012). Attributes such as fibrousness, succulence, hardness, colour intensity and flavour were evaluated. An ANOVA was performed and statistically significant differences were evaluated through a Tukey HSD test ( $p < 0.05$ ). No significant differences between control and glazing were observed, according to WBSF values ( $p = 0.799$ ). Regarding sensory analysis, glazed meat showed higher colour intensity ( $p = 0.015$ ) and hardness ( $p < 0.01$ ), but lower succulence ( $p < 0.01$ ) and flavour intensity ( $p < 0.01$ ) values.

It is possible to conclude that glazing has no evident advantages up to six months of preservation. However further studies are needed to understand if it can be more advantageous for longer storage periods.

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