

# **Changes in Protein and Lipid Oxidation and Color of Iberian Pig Burger with Different Levels of Tomato Fiber during Refrigerated Storage**

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The effect of the addition of tomato fiber at 1%, 2% and 3% on lipid and protein oxidation and instrumental color of raw Iberian pig burger was assessed during 10 days of refrigerated storage (4°C). Iberian pig burgers (n=5) were manufactured with Iberian pig meat without added fat by mincing Iberian pig meat with water, salt and tomato fiber at different levels (1%, 2% and 3%). In addition, a control group without fiber was manufactured.

Refrigerated storage increased lipid oxidation in all burgers; however, relative differences between groups keep constant during the storage. So, the addition of tomato fiber reduced lipid oxidation (TBA-RS) in Iberian pig burger respect to the control and this reduction was proportional to the level of fiber added. At day 10 of storage, TBA-RS values were significantly higher in burgers with a 2 and 3% of tomato fiber respect to the control and respect to burgers with 1% of tomato fiber. The effect of the addition of fiber in protein oxidation of Iberian pig burger followed the same trend as lipid oxidation although differences were not as clear as for lipid oxidation. However, the inclusion of tomato fiber modified color parameters of burgers as the redness (CIE a\*) and yellowness (CIE b\*) was increased while the lightness (CIE L\*) was reduced when the level of tomato fiber was increased. These differences kept constant along the storage period. Therefore, although the addition of tomato fiber to Iberian pig burger increased color intensity of burgers; it also had a protective effect against oxidation processes during storage, increasing the self-life of these products.

Funded by Junta de Extremadura (Consejería de Economía, Comercio e Innovación. Dirección General de Innovación y Competitividad Empresarial) and FEDER (2007-2013).