Smoked pork loin with ultrasound-assisted curing: physicochemical and sensorial effect

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TITLE: **SMOKED PORK LOIN WITH ULTRASOUND-ASSISTED CURING: PHYSICOCHEMICAL AND SENSORIAL EFFECT.**

ABSTRACT
The objective of this study was to evaluate the impact of high intensity ultrasound (HIU) assisted brining on the physichochemical characteristics and consumer prefrence of smoked por loin (*Longissimus dorsi*, LD). LDs were cut on slabs of 5 x 8 x 2,5 cm (lenght x width x height). Two brines (5 and 10 % NaCl) and two methods (static TC and high intensity ultrasound, HIU f52or 30 min). After curing, the samples were smoked, cooled, vacuum packed and ripped for 7 d at 4 °C. Weight, pH, percentage of NaCl, water holding capacity (WHC), shear force and CIEL*a*b colour, Chroma and Hue angle were evaluated in post-brining samples and smoked samples. Sensory analysis was performed to evaluate preference in appearance, taste and texture charecteristics. Weight and NaCl increased in samples post brining. However, smoked pork samples were not significantly different among treatments. The smoked sample became more yellow and less red. Consumers preferred TC smoked pork on appearance characteristic. HIU mproved cured pork meat. It is necessary to consider the posterior treatment that the cured meat will undergo, since part of the weight gain is lost during the smoking process.
KEY WORDS: **Curing, mass transfer, hugh intensity ultrasound, brine, sensory analysis, smoked pork.**