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Czech J. Food Sci.

Karamucki T., Gardzielewska J., Jakubowska M., Natalczyk-Szymkowska W.:

Usefulness of selected methods of colour change measurement for pork quality assessment

Czech J. Food Sci., 29 (2011): 212-218

A few selected methods of the meat colour change determination were compared with regard to their usefulness in the assessment of the quality of minced pork. The study was carried out on 128 samples of the muscle *longissimus lumborum*, taken from 128 carcasses weighing 70— 105 kg (equal number of both sexes — 64), obtained from pigs slaughtered in an industrial process line. The relationships were determined between the meat quality traits (concentrations of basic chemical

components in the meat, colour, sensory analysis of wateriness and firmness, WHC and pH_{II}), and the changes in

colour parameters measured in CIELAB and CIELCh scales, total colour change (ΔE^*) , and the changes determined by Karamucki using the modified Kortz method. It was found that the most useful method for the quality assessment was the Kortz method modified by Karamucki, used to determine the stability of the meat colour (expressed as % colour change) and based on the measurements of absorbance at wavelengths 580 nm and 630 nm, before and after the change of colour. Out of the meat colour parameters, the most useful for assessing the meat quality were the changes in redness (a*) - CIELAB scale, and hue angle ho - CIELCh scale. The changes in colour determined by the aforementioned methods were a better indicator of the pork quality than the total colour change $(\Delta E^*).$

Keywords:

colour of pork; sensory analysis; WHC; pork quality

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