

**EFFECT OF DIFFERENT TIME AND VACUUM COMBINATIONS ON
PHYSICOCHEMICAL, MICROBIOLOGICAL, AND TEXTURAL
FEATURES OF SOUS-VIDE COOKED PORK LOINS**

A. Šalaševičienė^{*}, I. Koscelkovskienė

Kauno Kolegija / University of Applied Sciences,
Faculty of Technologies and Landscaping,
Dept of Food Technology, Kaunas, Lithuania

The aim of the study was to investigate different combinations of heating time and vacuum depth to reduce toughness and shelf life of the pork meat. The combined effect of heating time and vacuum depth on yield, toughness and microbiota development of *L.Dorsi* muscle from pigs was examined. Pork *L.Dorsi* muscles were cooked at temperature 53°C, and different combinations of time (8 or 20 h) and vacuum depth (30 Pak or 60 Pak). The results revealed that weight losses were lower and moisture content higher in samples cooked for a shorter time, most textural variables in a texture profile analysis showed a marked interaction between cooking temperature and time. Samples cooked for 20 h showed significantly lower toughness values compare to those cooked for 5 h. Vacuum packaging showed no influence on any of the studied variables. For the treatments evaluated, cooking temperature × time combination seems to be more important than vacuum packaging in the textural parameters of pork loin. The sous-vide cooking of pork loins, despite less intense heat and shorten time (53°C–8 h), dramatically reduced microbial population.

Keywords: Sous-vide, pork loins, texture, safety

^{*} Corresponding author: alvija.salaseviciene@go.kauko.lt