The influence of ultrasound on meat quality

Summary

The aim of the study was to examine the influence of ultrasound treatment of beef tissue on its selected technological properties. Experiments were carried out on meat samples from young cattle. Muscles were dissected from carcasses 24 hours after slaughter and at the same time subjected to ultrasound treatment. Samples were stored for 96 hours at temperature of 4°C. Experiments were carried out 24, 48, 72 and 96 hours after slaughter. Following quality traits were determined: acidity, water holding capacity, L*a*b* (CIE) parameters. Obtained results pointed out that meat subjected to ultrasound treatment was having different technological traits than control sample. During the whole storage period the control sample was having higher L* parameter value whereas U sample was having higher a* parameter value. Meat subjected to ultrasound was having better water holding capacity during ageing. It's possible than by ultrasound treatment during rigor mortis period, post mortem processes were accelerated, resulting in the higher WHC of sonicated beef.