INFLUENCE OF CARCASS WEIGHT AND FATNESS ON PRECISION OF LEAN MEAT PREDICTION IN THE CARCASSES

Daiva Ribikauskienė[1], Violeta Razmaitė[1], Artūras Stimbirys[2]
[1]*Institute of Animal Science of Lithuanian Veterinary Academy, R. Žebenkos Str. 12, LT-82317 Baisogala, Radviliškis distr., Lithuania; e-mail: daiva@lgi.lt, razmusv@one.lt*
[2]*Lithuanian Veterinary Academy, Tilžės Str. 18, LT-47181 Kaunas, Lithuania; e-mail: arturas@lva.lt*

Summary. The objective of this study was to estimate the influence of carcass weight and backfat thickness on precision of lean meat prediction in the carcasses. The data from 122 evaluated pig carcasses were used in this study. The carcasses were evaluated with the Fat–o–Meater S70 (FOM) device and were dissected into component tissues. The carcass lean content predicted by dissection was on 1.1–2.6 % higher than to measured by FOM. The lowest difference of lean meat content was found in heavy carcasses. Difference between measurements decreased with decreasing weight of carcasses. The highest difference between lean meat content measured by FOM and carcass dissection was found in carcasses with higher backfat thickness. Backfat thickness between 3–4 last ribs measured by FOM was on 2.7–3.0 mm higher than taken by the ruler ($P<0.001$). Backfat thickness measurements by FOM in lean carcasses which backfat thickness did not exceed 17 mm were on 3.0 mm higher compared to the measurements by the ruler ($P<0.001$). In more fatty carcasses (18 mm and more) differences between these measurements were lower (2.7–2.8 mm) ($P<0.001$). High negative correlation was estimated between backfat thickness and lean meat content predicted by both methods. Negative relationship was found between carcass weight and backfat thickness ($P<0.001$). Negative relationship between carcass weight and lean content in the carcass was insignificant.

Key words: carcass, backfat thickness, lean meat content, swine.