

## THE COMPARISON OF MEAT NUTRITIONAL AND TECHNOLOGICAL PROPERTIES IN DIFFERENT ANIMALS

Vigilijus Jukna, Vilma Valaitienė

*Laboratory of Meat Characteristic and Quality Assessment*

*Veterinary Academy, Lithuanian University of Health Sciences*

*Tilžės 18, LT-47181 Kaunas, Lithuania; Phone: +370 37 36 34 14; E-mail: vjukna@lva.lt; valaitiene@lva.lt*

**Abstract.** The aim of performed study was to explore and compare the technological meat (pH, color, cooking loss, water holding capacity, tenderness, drip loss) and nutritional (dry matter, protein, fat, ash) properties of the different animals (cattle, pigs, sheep, wild boar, roes, snails). The six meat samples from: not castrated Lithuanian Black and White bull, Lithuanian White pig, Lithuanian Black Head sheep, wild boar, roe and snails. Samples were taken from the long back muscle (*musculus longissimus dorsi*) of animals and the meaty part of snails were investigated. Highest levels of the dry matter and protein were found in pork and meat of wild boar, lowest in sheep and snail meat, respectively. The highest content of fat was found in roe and wild boar meat. The content of fat in snail meat was by 6 ( $p<0.001$ ) and 5.97 ( $p<0.001$ ) fold lower compared to roe and wild boar meat. The highest amount of minerals was found in snail meat and the lowest in sheep meat; the difference made up to 0.34% ( $p<0.01$ ). Meat acidity was highest in snail and cattle, lowest in pork; the difference made up to 37.13% ( $p<0.001$ ) compared to snail meat. Roe meat was most tender, almost twice as tender as sheep ( $p<0.001$ ), wild boar ( $p<0.05$ ) and cattle ( $p<0.05$ ) meat. The highest loss was found in sheep meat and lowest in roe meat; the difference was up to 16.72% ( $p<0.001$ ). The highest water holding capacity was found in cattle meat, all other animal meat had comparable measures.

**Keywords:** meat quality; Lithuanian Black and White cattle; Lithuanian White pig; Lithuanian Black Head sheep; wild boar; roe; snails.