

Haematological and biochemical parameters of calves' blood and their relationship with meat quality

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The purpose of study was to assess a possible connection of haematological and biochemical profile with physicochemical quality and chemical composition of calves' meat. The material covered 42 calves chosen randomly i.e. 22 animals slaughtered in summer (June-August) and 20 in autumn season (October-December). Haematological analyses included haematocrit (HCT), haemoglobin level (HGB), red blood cells (RBC), and white blood cells (WBC). Biochemical analyses included glucose (GLU), triacylglycerols (TAG), total protein (TP), cholesterol (CHOL) and its lipoprotein fractions i.e. LDL and HDL. In samples of *musculus longissimus lumborum* and *musculus semitendinosus* the meat pH, electrical conductivity, colour, shear force, water holding capacity and chemical composition was determined. The relative high correlations between haematological parameters of blood (especially HCT and HGB) and indices of meat colour evaluated instrumentally (CIE L*a*b*) were stated. Additionally, similar correlations with haematin pigments content determined chemically were found out too. The results obtained in this study concerning haematological parameters of blood showed to be useful for veal colour prediction. The relationship between lipoprotein fractions of blood cholesterol and parameters of meat colour was stated.