IDENTIFICATION OF SPERM MORPHOMETRY IN MERINO SHEEP AND FAT-TAILED SHEEP

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ABSTRACT

The aim of this research was to identificate the sperm morphometry of both Merino and Fat-tailed sheep. Semen samples were collected twice a week from four rams, divided into two were Merino sheep (MER) and two were Fat-tailed sheep (DEG). Sperm morphometry examination was performed using NaCl-formaldehyde fixed samples through phase contrast microscope micrometer addition with oil emersion (1000×). Sperm morphometry characteristics were measured by Nikon motorized microscope Ci-E with NiS software after applying Eosin-Negrosin staining technique. Each sperm was measured for four primary spermatozoa head dimensional parameters length [L (µm)], width [W (µm)], (area [A (μm^2)], perimeter [P (µm)], two flagell parameters middle piece [MP (µm)], principal piece [PP (µm)] and total sperm length (µm). Merino (MER) and Fat-tailed sheep (DEG) were identified: MER, sperm morphometry L= 8.90 ± 0.45 µm, W = 4.79 ± 0.20 µm, A = 33.84 ± 1.57 μm^2, P = 22.72 ± 0.72 µm, MP = 14.81 ± 0.54 µm, PP = 42.15 ± 2.00 µm, total sperm length = 65. 86 ± 1.75 µm. DEG sperm morphometry L= 8.76 ± 0.33 µm, W = 4.80 ± 1.70 µm, A = 34.52 ± 1.43 μm^2, P = 22.48 ± 0.70 µm, MP = 15.18 ± 0.60 µm, PP = 42.92 ± 1.35 µm, total sperm length = 66.87 ± 1.31 µm.

Key words: merino sheep, fat-tailed sheep, sperm morphometry