

EFFECT OF AGE ON SEMEN CHARACTERISTICS IN MORADA NOVA RAMS

EFEITO DA IDADE NA QUALIDADE SEMINAL DE OVINOS MORADA NOVA

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One of the main characteristics to evaluate in selective breeding is semen quality. However, factors related to the animal itself, such as age, and the environment can influence reproductive traits. Good semen quality assures a faster return on investment in sheep farming by allowing better selection of males used as breeding stock to enhance reproductive efficiency of the herd, since males with good sexual performance and high fertility probably will beget a greater number of ewes in a shorter period of time. This study aimed to evaluate the effect of age on the semen quality of rams of the Morada Nova breed. The experiment was conducted at the Instituto de Zootecnia de Nova Odessa in São Paulo state, Brazil, in the period from March to May 2014. Twenty-four rams were used for monthly evaluation, with ages of 18±2 (n = 12) and 30±2 months (n = 12). The ejaculate from each animal was collected with an artificial vagina with the aid of a female in estrus, for further evaluation as to the volume, aspect, whirling, motility and sperm vigor. Then the sperm concentration and morphology were determined in wet slides. Means were compared by the t-test and chi-square test using the SAS software (SAS Inst., Inc., Cary, NC). There was no difference (P>0.05) for volume, concentration/mL, total concentration, coiled tails, decapitation and distal protoplasmic droplets. The variables whirling, vigor, motility, proximal protoplasmic droplets and piriform heads were different with regard to age (P<0.05). The younger rams produced spermatozoa with rates of curled tails, minor defects and total defects, respectively, of 8%, 8.66% and 6.14% higher than the older rams (P<0.05). Therefore, ram age may influence semen characteristics.

Table 1. Means and standard deviation of whirling (Whir), vigor, progressive motility (Mot), proximal protoplasmic droplets (PPD) and piriform heads (Pirif) of rams of the 18 e 30 months

Age	Whir	Vigor	Mot (%)	PPD	Pirif
18	3,78±0,82 a	3,70±0,58 a	83,72±7,47 a	0,06±0,24 b	0,08±0,45 b
30	3,14±1,23 b	3,18±0,89 b	71,87±21,30 b	0,41±1,14 a	1,10±3,45 a
P-value	0,009	0,001	0,0005	0,04	0,04

Means followed by different letters in the same column differ statistically (p <0.05) by t test and chi-square

Keywords: age, ram, sperm.

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