

Influence of Age on Some Testicular and Spermatic Parameters in Kids and Bucks in Local Breed Arbia in Algeria

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Abstract : To increase the profitability of the national herd so that it can meet the needs of the population, Algeria has proceeded to the introduction of new reproductive biotechnologies, including artificial insemination on natural heat, by induction and heat synchronization. This biotechnology uses the male way for the creation and dissemination of genetic progress. The study has focused on 30 goat kids and bucks local breed aged between 03 and 24 months, divided into 03 groups 03-06 months [Grp 1; n=9], 07-10 months [Grp 2; n=13] and 11-24 months [Grp 3; n=8], in order to determine the influence of age on testicular evolution by measurements of testis and scrotum, and the epididymis sperm parameters evaluation. These parameters are influenced by age variations (sperm and spermocytogram). The examined parameters have focused on testicular weight (grams), the scrotal circumference (cm), mass mobility (%), vitality rate (%), sperm concentration (x 10⁹), and percentage of abnormal spermatozoa (%). The ANOVA reveals a significance effect of age on parameters: testis weight, scrotal circumference, sperm concentration, motility varying between high (p < 0.01) to very high significance (p < 0.001), while in viability and abnormalities no significance was observed between all groups. The value of these parameters increased significantly until the age of 02 years, while that of sperm abnormalities has increased in Grp2. The histological study of testicular development shows that the genetic spermatozoa function characterized by cell proliferation, which is more and more intense starting from the age of 05 months and can be considered as an age of puberty in the local breed goat Arbia and increases with animal age.

Keywords : kids and bucks, epididymis sperm, testicular measurements, Arbia breed

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