

Relationship between *Mannheimia haemolytica* and the Fertility Characteristics of Boer Goats

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Abstract : A study was conducted to determine the effects on the severity of pneumonia due to *Mannheimia haemolytica* and its relation with the fertility of bucks. A total of 12 crossbred Boer bucks of 3 treatment groups of equal number (4 goats per group, aged 12-14 months) were selected in this study. Group A was intranasally inoculated live *M. haemolytica* 1×10^5 (cfu). Group B was first immunized subcutaneously *M. haemolytica* killed vaccine (2 ml) two week before intranasal inoculation of *M. haemolytica* 1×10^5 (cfu). Group C was treated with normal saline (PBS) as control. Electro-ejaculator was used for semen collection once per week whilst scrotal circumference was measured before and after challenge. The semen volume, sperm concentration, sperm motility, live/dead percentage and morphology were evaluated. From the semen evaluation, goats in Group A exhibited significant decrease in the semen volume, sperm concentration, motility and live/dead sperm compared with vaccinated group B. The scrotal circumference was significantly decreased in group A compared to B. There were non-significant differences in scrotal circumferences of group B and C. The results suggested that *M. haemolytica* infection has negative effects on the fertility of Boer bucks.

Keywords : Boer bucks, *Mannheimia haemolytica*, semen evaluation, vaccination

Conference Title : ICDARGI 2018 : International Conference on Domestic Animal Reproduction and Genetic Improvement

Conference Location : Sydney, Australia

Conference Dates : December 03-04, 2018