

Semen of dromedary camel: a review

Authors:

**Yassen Taha Abdul-Rahaman¹,
Maad Hasani Mahmood²,
Ahmed A. Mnati³ and
Muhammed Jasim
Muhammed¹**

Institution:

1. College of Veterinary Medicine, University of Fallujah, Iraq.
2. Biotechnology and Environmental Center, University of Fallujah, Iraq.
3. College of Science, Al-Karkh University of Science, Iraq.

Corresponding author:

Yassen Taha Abdul-Rahaman

ABSTRACT:

This review aims to highlight the characteristics of semen based on season, age, nutrition, the effect of diluents and preservation by dilution, cooling, freezing and thawing in dromedary camels. Various studies showed that the semen characteristics of camels were found to be: volume: 5-20 (mL), colour: creamy white, consistency: highly viscous, pH: 7.0- 8.0, Individual motility: 40-60 (%), sperm concentration: 100- 350 (million/mL), total sperm (billion/ ejaculate): 0.5- 6 and abnormal sperm: 5- 20(%). During the seasons of the year, the highest percentages of dead spermatozoa and sperm abnormalities were recorded during summer and the lowest during winter. It has been recorded that during cold months (December, January and February) the Iraqi mature camel shows higher percentage of sperm parameters live and individual motility. It was observed that the age between 4-5 years was better for semen collection. The mean of ejaculate volume has been reported to be highest during the copulation time of 395.95 Sec was 4.76 mL and lowest of 1.7 mL in 216.8 Sec. The method of collecting semen by the dummy camel was better in semen characteristics than that of electrical-ejaculation and artificial collection vagina and teaser methods. Semen liquefaction was achieved by leaving the ejaculate in a water bath at 25-37°C for a period of 4.5 min to 2 h. Tris and green buffer with the addition of 20% of egg yolks were the best diluents used to save semen between 4-25 °C for 48 h. Supplementation of tris based extender with 7% glycerol preserves the post-thaw quality and fertility of camel bull spermatozoa using 0.25 mL straws for long term semen preservation by dipping in liquid nitrogen. In conclusion, the semen characteristics of dromedary camels can be affected by several factors, in addition to many diluents that maintain sperm life during the period of dilution, cooling, freezing and after thawing.

Keywords:

Semen, Dromedary camel, Spermatozoa.