

Reproduction in camels

The word camel is derived from the Greek word (kamel) and from immemorial time the camel is recognized as the (**ship of desert**). The genus camel has two species:

one-humped camel is also called dromedary.

Two-humped camel is called bactrian.

the camels have 70 chromosomes.

- a. Female camel reaches puberty at 3 years of age , but not mated until they are 4-5 years old .
- b. Male camels are sexually active at 3 years of age, but are not usually used at stud until they are 5-6 years old.
- c. During the rut (heat period) in male, the temperature changes towards an aggressive, less tractable nature, including a predisposition to fight other males as well as human being . A prominent feature of rutting behavior is frothing at the mouth and loud vocal gurgling , accompanied by the protrusion of the markedly edematous and mobile soft palate , and during the heat period the poll glands of male camel emit a black pigment which helps him to attract the females
- d. the genitalia of female camel show several noteworthy features. The uterus is bicornuate with a well developed body. From which the two horns diverge and taper cranially to give a combined uterine shape intermediate between that of the letters Y and T, **the left horn is longer than of right.**

The endometrium shows irregular raised longitudinal folds which are more conspicuous in the right horn . The cervix somehow resembles that of cow but has five annular mucosal folds.

The uterine tubes are 22-24 cm long , the mesosalpinx and mesovarium together form a very well developed bursa that closely invests the ovary.

The anoestrus ovary is roughly oval and thin, but The mature follicles and current corpora lutea of the breeding season project from the ovary and give it the lobular form.

Ovulation in the camel occurs normally after the coitus and in this respect it resembles the cat and the rabbit.

Ovulation occurs 32 to 40 hours after copulation under the influence of luteinising hormone (LH) in Dromedary camel. In the bactrian camel ovulation takes place within 36 to 48 hours after coitus.

Because the ovulation is a sequel to coitus , corpora lutea are to be expected only in pregnant she camels.

The young corpus luteum is soft and spherical, brownish on section with a central blood clot . while the mature corpus luteum is compact sphere and is flesh-colored with a central area of grey connective tissue .

Note : corpora lutea persist throughout the pregnancy.

The breeding season is from December to June. the camels generally don't come in heat in the summer season.

Estrous Cycle

The length of estrous cycle is variable, in Dromedary camel, it ranges from 23 to 28 days, while the duration of this cycle is 14 to 24 days (19 days) in bacterian camel.

Estrus signs:

In the absence of male the estrus length may last about two weeks, whereas if copulation occurs on the first day of estrus, receptivity may disappear after 3 days.

The signs of estrus are :

- Restlessness .
- Bleating .
- Swollen vulva.
- Mucous vaginal discharge.

Mating process:

Generally mating occurs by natural method.

The female camel urinates and moves its tail up and down in rapid succession on the approach of male or when hearing the gurgling voice of the rutting males. The rutting male pursues the estrous female and on catching up with her, presses his head on her neck and induces her to sit down, the male then mounts in a **squatting posture**, the copulation lasts 8-15 minutes, and is accompanied by gurgling and frothy by male and bleating by the female.

If conception has occurred then after 15 to 25 days the she camel, especially when approached by a male or handled by an attendant, shows cocking of the tail but if she has not conceived then the cocking of the tail is not seen.

e. **99% of pregnancies are in the left horn (and uterine body).** The incidence of twin ovulation is 14%.

When both ovaries ovulate at the same estrus , embryos develop initially in both horns but the one on the right horn dies when it reaches a size of 2-3 cm .

The gestation period is 370-400 days.