



Estrous Cycle in Ovine, Caprine and Swine, Anestrus and its Treatment



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Estrous Cycle of Ovine and Caprine

Estrous Cycle of Ovine and Caprine

- Duration of estrum in
 - a) sheep 24 to 48 hours (average 36 hours).
 - b) Goat 24 to 96 hours (Average 40 hours).

Ovulation time:

Spontaneous, 18 to 24 hours after the onset of the estrum or 12 to 24 hours before the end of estrum.

Behavioral sign of estrus in Doe and Ewe

- ❖ Restlessness.
- ❖ Anorexia.
- ❖ Occasionally homosexual behavior in goat
- ❖ Frequent and peculiar type of continuous bleating in doe.
- ❖ Drop in milk yield
- ❖ Swelling of the vulva.
- ❖ Frequent switching of the tail.

Signs of heat



Bleating in goat



Mucous discharge

Behavioral sign of estrus in Doe and Ewe

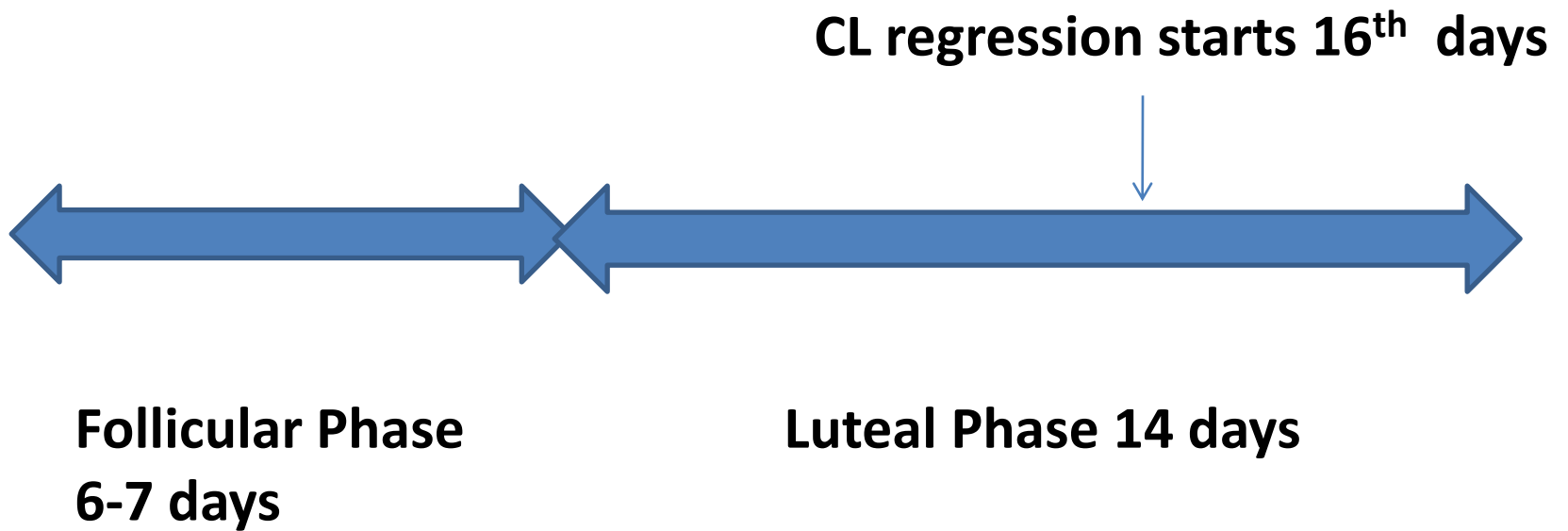
- Oestrus doe prevent other doe to approach or attract the male.
- Signs of estrus more clear in doe than ewes.
- Ewes display strong ram –seeking behavior.
- When ram approaches to ewes during estrus
→ estrus doe do not urinate while non estrus doe urinate.

Anestrus

- Deworming with broad spectrum antihelminthics.
- Supplementation of mineral mixture @ 10-20 g daily.
- Injection Cloprostenol sodium @ 0.5 ml (125 mcg).
- Injection GnRH @ 2.5 mcg

Estrous cycle of Swine

- Sow is polyestrous.
- Estrum usually absent during lactation.
- Estrous cycle length = 21 days (18-23 days).
- Follicular or Estrogenic phase = 6 to 7 days.
- Progestanal or Luteal phase = 14 days.
- Beginning of CL regression = 16th day.
- Duration of estrum= 1-4 days (Average 2-3 days or 60 hours).



Estrous cycle of Swine

- **Ovulation** usually occurs between **24 to 36 hours (Avg. 36 hours) after the onset of estrum.**
- Older sows have slightly longer estruos period and cycle than gilts.
- Failure of ovulation = Longer estrus period
- Premature ovulation = Shorter estrus period

Estrous cycle of Swine

- Ovulation is spontaneous in sow.
- It takes about **4 to 6 hours** from the rupture of the first follicle to the rupture of the last follicle.
- Rate of ovulation a) Gilts → 10 to 15
- b) Sow → 12 to 20
- Younger gilts and older sows have a lower ovulation rate.

Behavioral sign of estrus in Sow

- Reduced appetite, Restless nervous.
- **Salivation**, champing of the jaw.
- **Frequenting grunting.**
- Mounting on other animals.
- Lordosis.
- Vulvar swelling with pinkish red colour vulvar mucous membrane.
- Mucous discharge occasionally.
- Frequent tail wagging → most useful trait.

Behavioral sign of estrus in Sow

- Standing motionless for long periods in a position for service.
- Back pressure test or riding test or lordosis is the most efficient and practical method of estrus detection in the saw.
- Back pressure test or sow's back test is efficient in the presence of boars nearby.

Back Pressure and riding test in sow



Back Pressure test



Riding test

Anestrus in swine

- Anestrus usually occurs due to → postweaning anestrus in sows or delayed puberty in gilts.
- Treatment of anestrus include injection of PMSG (500 to 1500 I.U. IM) and HCG (200 I.U.)
- Estrogens are contraindicated for anestrus female swine.



THANK YOU