

Factors effect to estrus cycle

- 1-nutrition (inactive ovaries)
- 2-season(long day and short day breeder)
- 3- lactation
- 4- age of animals
- 5-Disease uterine and cervix (endometritis , pyometra)
- 6- endocrine glands disorder (cystic ovary)
- 7- Temperature
- 8- animals transport
- 9- type of animals work
- 10– general disease
- 11- breed of animals

Detection of estrus : is one of the most critical components of a successful breeding program. Accurate and consistent detection of estrus is necessary to ensure insemination occurs near the time of ovulation and to identify open females. Errors in detection of estrus reduce reproductive performance and increase herd non-productive days

Opens days : the period started from parturition to fertilization(90-100 days)

Its composed of (uterine involution + estrous cycle)

Uterine involution : return the anatomy and physiology of uterus to after parturition (40-50 days)

Calving intervals : it's the period started from one parturition to other parturition(360 days) its composed of(open days +pregnant time)

Repeat breeder : repeat the estrous cycle more three times after insemination but without fertilization so require treatment)

Important of estrous detection

- 1 – to decrease number of repeat breeder in •
COW
- 2 – decrease number service per conception •
- 3 – decrease number of open days •
- 4 – decrease number of calving intervals •
- 5 – decrease number of culling percentage •
due to reproductive reasons

Estrus detection to

Decrease open day



decrease calving interval •



Estrus detection

• A - Visual aids

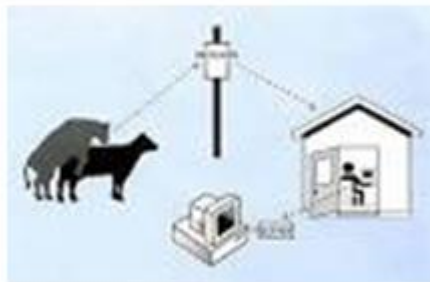
- 1- herd man (owner)
- 2-video recording
- 3-sheep dogs (wolf dogs)
- 4- Teaser
- A - culled cow (virilism)
- B – bull (vasectomy , penis deviation , penectomy , epidily mectomy)
- 5- Tail paint
- 6- Chin bell
- 7- ovascan

Herd man(owner) to estrous detection

- 1 – skill detection estrous behavior
- 2 - must be three time before milking
- 3 –length time observation must be 30 minute



Video recording to estrus detection



Sheep dogs (wolf dogs) to estrus detection it smell pheromone from vaginal discharge



Preparation **teaser** to estrus detection

Vasectomy

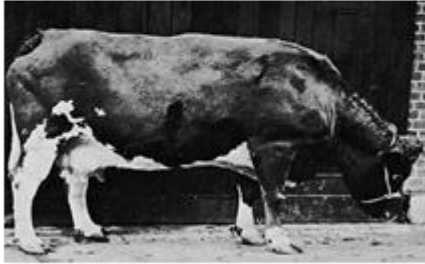


Penis deviation



Preparation teaser to estrus detection

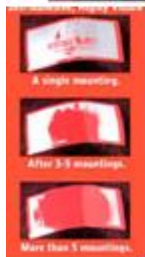
Luteal cyst cows (virilism)



Androgenized cows



Tail paint to estrus detection



Chin - Ball to estrus detection



Visual aids to estrus detection

Pedometer to estrus detection



Ovascan to estrus detection



B- non visual aids

1- Cervical vagina mucus

A- viscosity (decrease)

B- ferning(ferning pattern)

c -Biochemical change (glucose increase)

2- vaginal change

A- ph decrease

B- Electrical resistance cytology decrease

C- thermal conductivity increase

D- vaginal biopsy

3- hormonal change in blood and urine (estrogen ,progesterone)

4 -rectal palpation to predict estrus

5 - estrus synchronization

Estrus detection in mare



Estrous detection in ovine

