

Shriwesi Mahavidyalaya, Shirur A.

Academic Year - 2022-23

Assignment No. - 1

Male & Female Reproductive system  
of Dairy Animal.

Bsc. Third Year

Sem - V

sub :- Dairy Science

Paper No - VIII

Paper Name :- Reproduction in  
Farm Animal

## Assignment No. 1

Name :- Kamble Sanjivani Dattatray

collage :- Shivneti Mahavidhyo Shihak Anantpal

Standard :- B Sc (T.Y).

Subject :- Dairy Science

paper Name :- Reproduction in farm animals

Teacher's Signature.....

Reproduction is of two types asexual or sexual. In mammals it is sexual reproduction. Sex involves male and female animals of same species as parents.

### male Reproductive System :-

The male reproductive system mammals consists of a pair of testes in the scrotum, epididymis, vas deferens, Pen a is and accessory gland viz,

Seminal vesicles Prostate and bulbo-urethral glands.

### 1. Testes :-

1] testes are suspended in the scrotum by spermatic cord,

2] they are two in number oval in shape

3] the average weight of adult testis is 300 - 500 gms.

4] each testis consist of mass of seminiferous tubules.

5] seminiferous tubule is made up of two types of cell i.e. Germ cells and Sertoli cells.



\* Function :- they produceperms i.e. male gametes and male sex hormone i.e. androgen which promotes development of secondary sexual characters in males,

2. Scrotum :-

1] it is a cutaneous pouch in which testicles are located.

2] the scrotal skin is thin pliable and relatively hairless.

3] it is divided in two chambers by central membrane called scrotal septa,

\* Functions :- it holds the testes and located external to the body it regulates the temperature of testes by contraction, relaxations and through sweating.

3. Epididymis :-

1] it is called tube originating atohotSale Pa - it is approximately testies.

2] it is approximately 30 - 35 meters long

3] it consists of head (caput) body (corpus) and tail (cauda)

Teacher's Signature.....

## \* Functions :-

- 1] it helps in migration of spermatozoa from testes to vas deferens,
- 2] it concentration of sperms suspens' in
- 3] It helps in maturation of sperms,
- 4] the tail (cauda) serves store house of sperms,

## 4. Vas Deferens :-

- 1] these are two slender tube extending from tail of epididymis to urethra,
- 2] spermatic arteries, veins, nerves, muscles, and vas deferens forms spermatic cord
- 3] each vasdeferens goes through the inguinal ring and opens into urethra,
- 4] terminal portion of both the tubes is little dilated and called as ampulla.

## \* Function :- transport of sperm from epididymis, to urethra,

## 5. Urethra :-

- 1] it extend from the neck of the bladder of the glans penis.
- 2] it has three distance parts viz, pelvic

Teacher's Signature.....



part of vachta and penile part,  
functions :- it is a ca,  
mmon passas for urine and semen,

6. Penis :-

- 1] It is cylindrical in shape. it is about 3 long and 1inch in diameter in adult bull.
- 2] It consist of 3 part - root, body and glans.
- 3] the free portion of penis in nonerectly state remains covered by a cutaneous pose know as prepuce,

\* Functions :- It is an organ of copulat male,

∴ Accessory Sex Glands :-

Accessory sex glands of male reproductive stem include seminal vesicles, prostate glands and bulbo urethral gland or Cowper's gland,

Teacher's Signature.....

## 1. Seminal Vesicles :-

- 1] these are two lobulated elongated glands situated in pelvic cavity.
- 2] they are located on either side of ampulla above the neck of urinary bladder.
- 3] they secrete seminal fluid which is rich in fructose and citric acid.

## 2. Prostate gland :-

- 1] It is unpaired gland situated at the junction of bladder and urethra.
- 2] it is composed of body and glandular part.
- 3] its secretions are drained by approximately 30 ducts into urethra.
- 4] its secretion is high in proteins, enzymes and minerals.

## 3. Bulbo-urethral Gland or Cowper's Glands,

- 1] these are two, small round and compact gland.
- 2] these are situated above the urethra near ischiabulb.
- 3] secretions of the gland cleans the

Teacher's Signature .....



urethra of the detetious effects of urine,

### \* Female Reproductive System :-

Female reproductive system of new consist of a pair of ovaries, pair of fallo pain tubes, the uterus. the cervix and the vagina.

#### 1. ovaries :-

- 1] these are paired glands situated in pelvic cavity
- 2] they are oval in shape.
- 3] they weigh about 7-15 gm right ovary is slightly large than left.
- 4] each ovary consist of number of primardial follicles ranging bet<sup>n</sup> 75,000 to 3,00,000 the follicles reach maturity through successive developmental stages viz, primary, growing and mature follicle,

#### \* functions :-

1] Formation of ova or eggs (oogenesis)  
ie female gamete.

2] Secretion of female sex hormones

Teacher's Signature .....



a) Estrogen :- Secreted by follicular cells, is responsible for development of secondary sexual characters, sexual behaviour and regulation of estrous cycle,

b) Progesterone :- Secreted by corpus luteum, is essential for maintenance and pregnancy

## 2. Fallopian tubes :-

1) these are also called as oviducts or salpinx or uterine tubes,

2) there are paired, slender, zigzag like tubes extend from ovaries to uterus

3) each fallopian tube is divided into infundibulum, ampulla and isthmus,

### \* Functions :-

1) in fundibulum collects ovum or eggs released by ovaries,

2) fertilization of ova takes place in ampulla

3) facilitate transport of sperms to the site of fertilization,

4) involved in transport of zygote to uterus,

Teacher's Signature.....

### 3. Uterus :-

- 1] it is hollow elongated, muscular membranous J-shaped sac.
- 2] it is located in pelvic cavity in non-pregnant animals, however in pregnant animal it descends in abdominal cavity.
- 3] it continues anteriorly with fallopian tubes and posteriorly with cervix.
- 4] it consists of short body and two horns.
- 5] the inner mucosa of uterus has raised spots called cotyledons.

### \* functions :-

- 1] transport of sperms towards the fallopian tubes.
- 2] secretion of uterine milk for nourishment of early embryo.
- 3] uterine contractions help in expulsion of foetus during parturition.
- 4] regulates oestrous cycle by secreting prostaglandins.

### 4. Cervix :-

- 1] it is also known as neck of the womb.

Teacher's Signature .....



2] it is thick walled fibrous structure lies bet<sup>n</sup> the uterus and vagina.

3] its inner wall is attached in the form of annular rings which gives spiral shape to the cervical canal.

4] the cervical canal is tightly closed during pregnancy and aenesthus, however relaxes during aenesthus and parturition.

#### \* Functions :-

1] Storage and transport of sperms during aenesthus.

2] Secretion of mucus during aenesthus stage.

3] Acts as a barrier against ascending type of infection.

4] formation of cervical sexl during gestational pregnancy.

#### 5. vagina :-

1] it is highly elastic musculo-membranous tube.

2] it is situated on floor of pelvic cavity above the urinary bladder and below rectum.

3] it is about 20-25 cm long and 10-15 cm<sup>2</sup> de it extends from cervic up to urogenital

Teacher's Signature.....

Sinus or vestibule, urethra opens on floor of vagina as external urethral orifice.

\* functions :-

- 1) It is the organ of copulation in females.
- 2) It acts as a birth canal.

6. Vulva :-

1) It is the external opening of the urogenital tract line just below the anus.

2) It has two lateral vulval lips which are large soft thick and normally wrinkled.

3) The clitoris is a small, rod like erectile muscular elevation present on the posterior floor of the vulva.

4) The hymen is a transverse membranous partition situated in front of urethral orifice between vulva and vagina.

Teacher's Signature .....