

# Livestock Production III (Selecting and Breeding) - Agriculture Form 3 Notes

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## [Introduction](#)

- The breeding of animals is under human control, and the breeders decide which individuals shall produce the next generation.
- The breeder makes a choice.
- The breeding of animals is based upon the fact that certain qualities are genetic, hence valuable qualities are passed on from parents to off -springs.
- The qualities can be maintained or improved in the next generation.

### **The performance of an animal is influenced by two major factors;**

- Genetic potential
- The environment, which includes:
  - Feeding,
  - Health,
  - Care
  - The ecological conditions.
- The genetic potential of an animal is inherited from its parents.
- In selection and breeding animals with superior characteristics are selected and allowed to mate.
- In the process they transmit the superior characteristics to their offspring.
- When this is done over a long period of time, it results in livestock improvement.

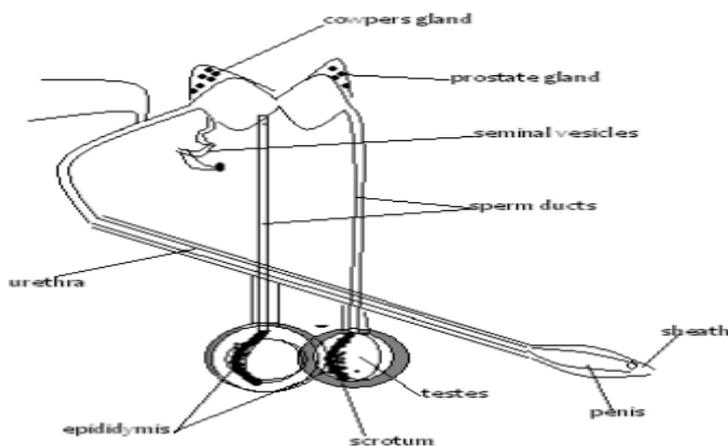
## Reproduction and Reproductive Systems

- Reproduction is the process by which off-springs are produced.
- All farm animals multiply by means of sexual reproduction.
- It begins with fertilization which is the fusion of male and female gametes to form a zygote.
- Fertilization takes place internally in the body of the female.
- The embryo(zygote) formed develops inside body of mother, fed and protected until end of gestation period.
- In poultry, the process is different in that eggs are fertilized internally but laid and development of the chick takes place outside during incubation.
- In both male and female, certain organs are specialized for the process of reproduction.
- Some of these organs secrete fluids which are necessary for the movement and survival of the gametes(reproductive cells.)

### Reproduction in Cattle

- The male reproductive organs produce the male gametes,the spermatozoans.
- These are introduced into female reproductive system, where they fuse with the sperm to form zygote.

#### **Reproductive System of a Bull**



#### **The Testis**

- There are two testes hanging loosely between hind legs.
- Enclosed by loose skin (scrotum)scrotum regulate temperature of testis for optimum production of sperms.
- Produce spermatozoa(sperms)which are stored in coiled tube called epididymis.

#### **Epididymis**

- Storage of spermatozoa.

#### **Sperm ducts:**

- Conveys sperm from the testis and urine through the penis.
- sphincter muscles contract to allow each to pass separately.

#### **Seminal vesicles**

- produce fluid called semem.