

JOB ROLE – ANIMAL HEALTH WORKER

Sector – Agriculture

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Class X



PSS Central Institute of Vocational Education
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UNIT 4: Implementation of Animal Breeding Services in Dairy Animals

Session 3: Basic Physiology of Reproduction

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Session Objectives

The students will learn about :

- The basic physiology of reproduction
- The concept of Oestrus and oestrus cycle in female dairy animals
- The different phases of oestrous cycle

Introduction

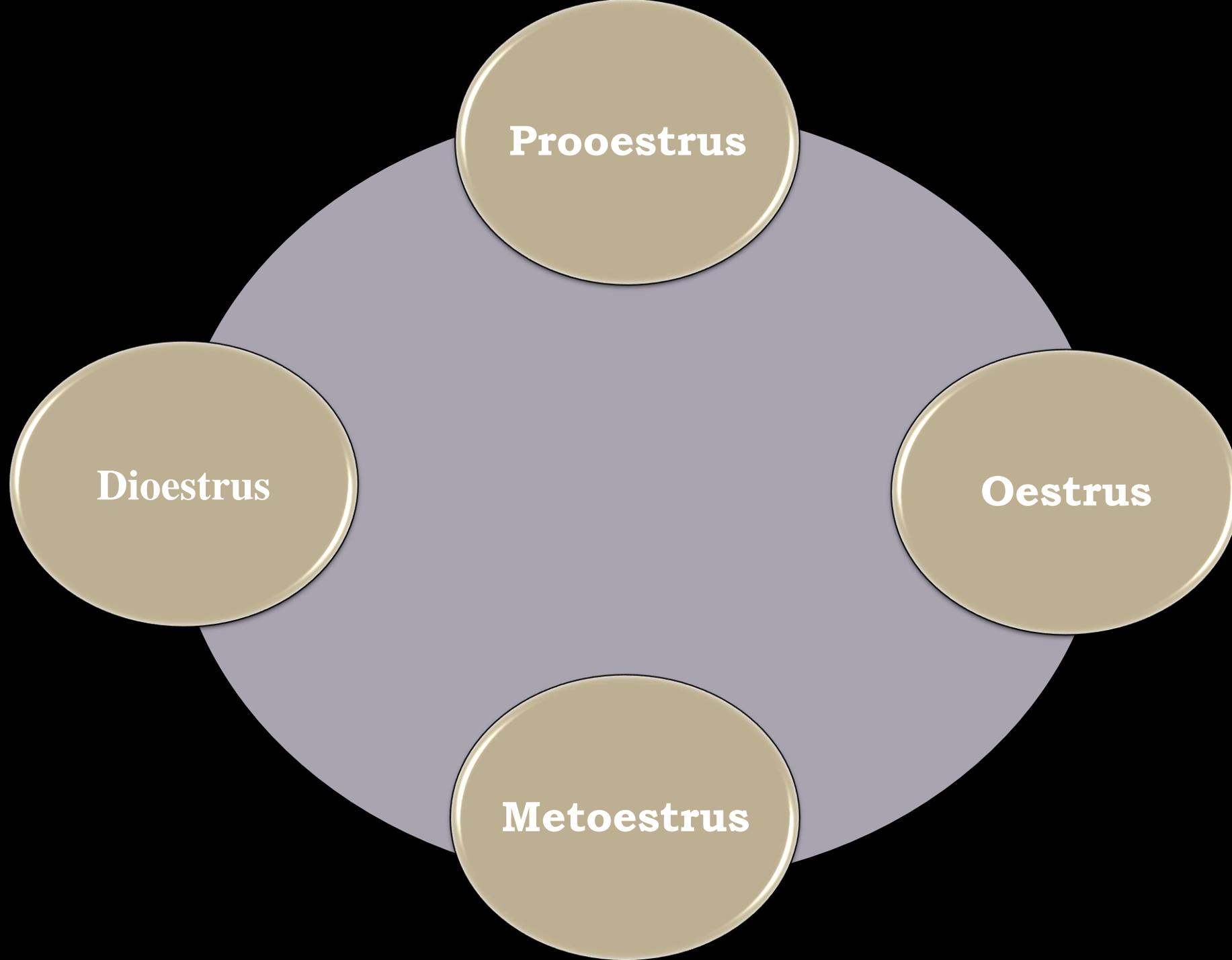
- Reproduction is the process of producing an offspring.
- The process consists of expression of oestrus in females, mating of male and female, pregnancy, and giving birth to young ones.

Basic Physiology of Reproduction

- The process of reproduction is regulated in an orderly manner by chemical messengers called hormones.
- Hormones are produced in one part of the body (glands) and transported to other parts (target organs) to influence their functions.
- The main hormones affecting reproduction in animals are gonadotropin releasing hormone (GnRH), follicle stimulating hormone (FSH), luteinising hormone (LH), estrogen, progesterone, oxytocin, and prolactin.

Oestrus and Oestrus Cycle

- A female dairy animal is in oestrus when she allows mounting by the male.
 - The chain of events that starts at one oestrus and ends at the next is termed as oestrous cycle.
 - The oestrus cycle consists of four phases.
 - These four phases of oestrus cycle can be broadly grouped into the following types on the basis of a predominant structure present on the ovary.
- Cont...



- These four phases of oestrus cycle can be broadly grouped into the following types on the basis of a predominant structure present on the ovary.

- (a) Follicular phase
- (b) Luteal phase

- Follicular Phase of oestrus cycle consists of proestrus and oestrus. A prominent follicle is present on the ovary during this stage.

- Proestrus is also known as the preparatory stage or 'building-up phase' of the oestrus cycle. This phase lasts for 3 to 4 days.

Summary

In this session you have learnt about the

- The basic physiology of reproduction
- The concept of Oestrus and oestrus cycle in female dairy animals
- The different phases of oestrous cycle

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