

# JOB ROLE – ANIMAL HEALTH WORKER

Sector – Agriculture

(Qualification Pack Code: Ref.Id.AGR/Q4804)

Class X



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

## **Session 5: Techniques of Oestrus Detection**

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# Session Objectives

The student will be able to :

- Learn about the techniques of oestrus detection in dairy animals by the following methods
  - Visually observable signs of oestrus
  - Use of teaser bulls
  - Post rectal internal signs of oestrus
  - Oestrus detection aids

# Introduction

In this unit students will learn about the different methods of oestrous detection so that they can be bred on time.

# Techniques of Oestrus Detection

An efficient system enables early detection of animals in oestrus. The animals can be bred on time if oestrus detection is proper.

# Methods of Oestrus Detection

Oestrus is the only visually observed phase of the oestrus cycle. represents the methods of oestrus detection.

Visually observable signs of oestrus

Use of teaser bull

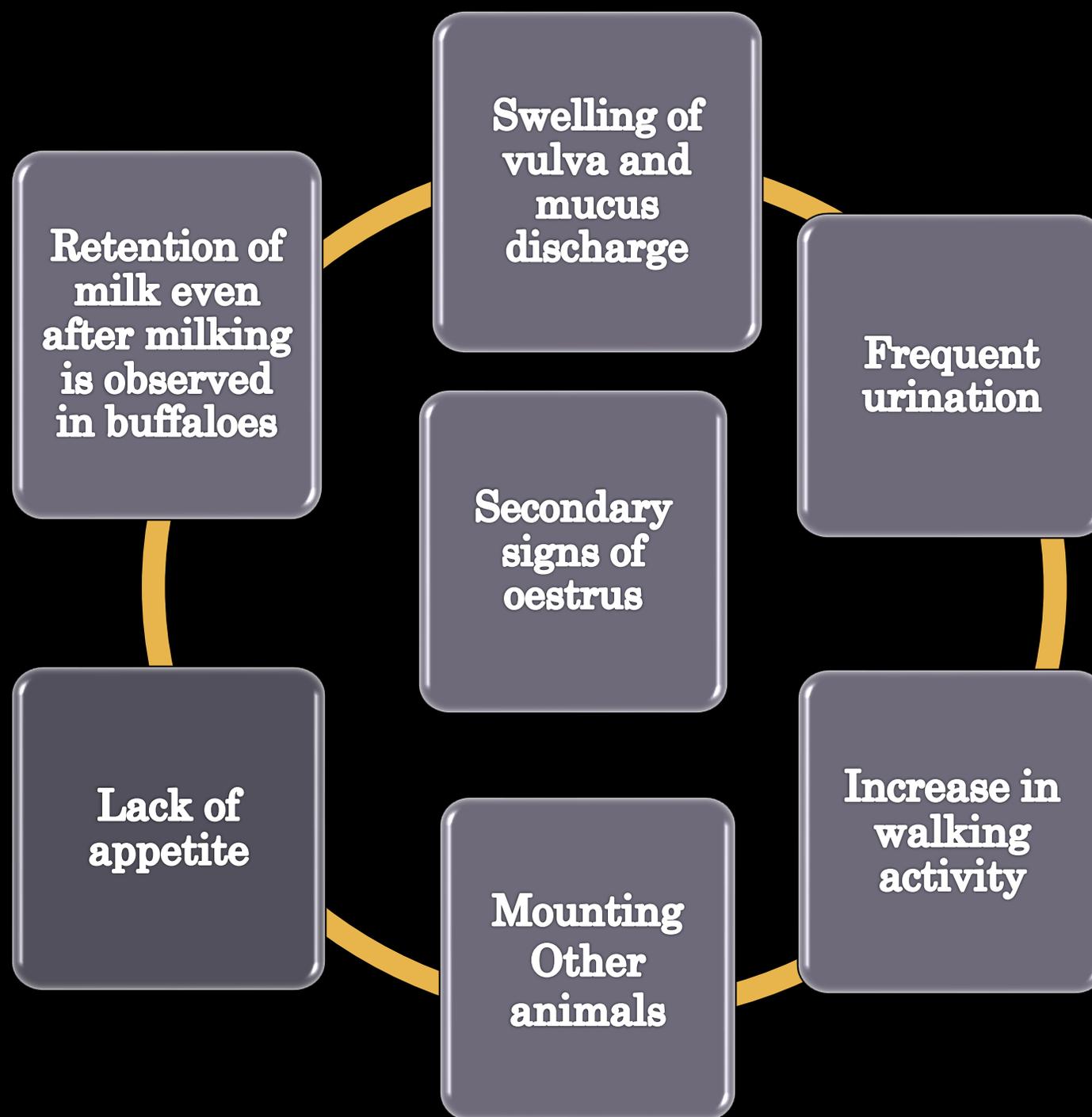
Methods of oestrus detection

Per-rectal examination for internal signs of oestrus

Oestrus detection aids

# Visually Observable Signs

- The visually observable signs of oestrus can be classified as primary and secondary.
- Primary sign of oestrus is when the cow is standing still to be mounted by other cows or bull. This is the most definite sign of oestrus.
- Secondary sign of oestrus may not indicate a definite oestrus.





Secondary sign of oestrus  
(mucus discharge)



Redness of vulvar mucous  
membrane during oestrus

# Use of Teaser Bull

This is a useful method of oestrus detection in which a teaser bull (an infertile bull, which retains sexual desire or mounting activity) is paraded in the herd twice or thrice daily.

The oestrus cows will stand to be mounted by the teaser bull. Oestrus detection using a teaser bull is carried out in the early morning or late evening.

# Using Oestrus Detection Aids

The use of heat detection aids improves efficiency of oestrus detection. The following oestrus detection aids are commonly used.

- **Tail Chalk or Paint:** Chalk or paint is rubbed on the rump and tail heads of the cattle every day. Spreading or disappearance of chalk or paint indicates that the cow has been mounted by her herd mates.

- **Heat Mounting Detectors:** Such types of detectors are glued to hair on the midline just in front of the base of the tail of the female animal.

Cont...



Tail chalk for oestrus detection

**Chin Ball Device:** Teaser bulls are used as 'marker animals' and are fitted with chin ball marking devices. When a marker animal presses down with its chin on the back or rump of a cow in oestrus, the valve fitted in the device opens and marker fluid is released



**Chin ball device and how it is fixed on cattle**

**Cont...**

**Pedometer:** This is a digital device for calculating the distance covered by the female animal. Females in heat walk twice as much compared to the animal not in heat. Thus, pedometers help in identifying animals in heat.

**CCTV Camera:** It involves surveillance and recording of animal behaviour in a confined area. It requires evaluation of an entire day's recording. **Electrical conductivity of oestral mucus:** Measurement of electrical conductivity of genital secretions with the help of a conductivity meter often detects the animal in true oestrus. It also tells the exact time of insemination.



Pedometer for oestrus detection

## **Per-Rectal Examination for Confirmation of Oestrus**

After reaching the preliminary conclusion that the animals are in heat, per-rectal examination of the animal is carried out to confirm the heat status.

It is a type of confirmatory diagnosis. Perrectal examination is performed by restraining the animal in the trevis (an enclosure to restrain the animal for such examination).

Per-rectal examination during heat period will reveal open external os cervix.



Per-rectal examination of a buffalo for detection of heat

# Summary

In this session you have learnt Learn about the techniques of oestrus detection in dairy animals by the following methods

- Visually observable signs of oestrus
- Use of teaser bulls
- Post rectal internal signs of oestrus
- Oestrus detection aids

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