

Unit 15: Fertility problems in cattle and sheep

Factsheet

Introduction

Fertility is the ability of the male or female animal to reproduce.

The reproductive system of both is under the influence of a range of gonadotropins that act in sequence.

This session will deal with the main fertility issues of the female, and it will focus on health reasons for low conception rates. This session will benefit from a revision of the male and female reproductive tract of both the cow and the ewe.

The session will look at

- a) The dairy cow
- b) The suckler cow
- c) The ewe.

a) The dairy cow

Calving interval

An interval of 365 days between calvings is ideal in the dairy cow.

Components of a 365 day calving interval

- Elimination of uterine infection
- Regular oestrus cycle
- Heat detection
- Fertilisation
- Implantation of embryo
- Minimal embryonic deaths
- Avoiding abortions
- Production of a live calf.

The main causes of **low conception** rates

- Poor embryo recognition
- Serving too soon after calving
- Poor heat detection
- Poor timing of artificial insemination
- Endometritis
- Fatty liver
- Genital and other infections e.g. leptospirosis
- Stress
- Poor handling facilities
- AI operator technique
- Semen quality
- Nutrition.

Main health reasons for poor fertility (low conception rate) in the dairy cow

- Endometritis
- Fatty liver
- Cystic ovaries
- Poor nutrition - low energy intake.
- Lack of trace element(s) or vitamin(s)

Abortions caused by:

- Leptospirosis
- BVD
- Infectious bovine rhinotracheitis
- Neospora
- Salmonellosis
- Genital infections e.g. brucella abortus, trichomonas foetus and campylobacter.

b) The suckler cow

3 main reasons for poor conception rates:

- Body condition score - either too fat/thin
- Inadequate minerals, trace elements and vitamins
- Disease.

Main fertility diseases of the Suckler Cow

- Metritis or uterine infection from a difficult calving
- Endometritis
- BVD
- Bluetongue.

d) The Ewe

Sub-optimal (below) reproductive performance in the ewe can be caused by:

- Low ovulation rates - linked to body condition score: too fat/thin
- Low conception rates - linked to body condition score: too fat/thin
- Reabsorption of the foetus at an early stage - stress nutritional/actual
- Late foetal death
- Abortion
- Stillbirth
- Dystokia - difficult lambing
- Prolapses
- Poor mothering ability.