

## Unit 3: The causes of ill health in farm animals Factsheet

### Introduction

There is an old saying in farming that 'where there is livestock there is deadstock'.

Although slightly pessimistic it is true that the modern farmer does come across many cases of ill health during a farm year.

As production of milk or meat is greater in a healthy animal it is important that the farmer can spot the signs of disease/ill health. Then the cause can be worked out, the problem treated and possibly prevented from happening again.

The farmer's role is one of a 'mini-vet'.

### What are the causes of ill health in farm animals?

There are many causes:

- harmful organisms
- the animal's environment
- physical damage
- nutritional factors
- metabolic disorders
- stress
- chemicals
- inherited problems
- allergies

### The causes of ill health can be split into seven main categories:

1. Physical factors
2. Chemical factors
3. Biological factors
4. Nutritional factors
5. Metabolic factors
6. Inherited factors
7. Allergic reactions

#### 1. Physical factors that cause ill health

Animals can suffer physical injuries on the farm.

This is usually due to poor management.

#### Examples

- Lameness as a result of falling or slipping
- Poor quality roadways or tracks with stones
- Poor, wet bedding or faulty slats
- Drowning due to uncovered troughs or rivers
- Exposure due to poor weather and no shelter
- Sunburn - photosensitisation
- Untidy yards – nails, wire, zinc sheets

- Electrocutation due to poor electrics or lightening
- Barbed wire fence poorly maintained
- Road accidents due to poor fence maintenance

## 2. Chemical factors that cause ill health

Animals can become ill by ingesting or being exposed to a wide range of chemicals, both natural and man made.

### Examples

- Consumption of poisonous plants e.g. bracken, ragwort, rhododendron
- Acidic silage additives
- Insecticides and weedkillers
- Animal medicines e.g. some animals are allergic to medicines and some animals are overdosed
- Vitamin and mineral overdose or deficiency e.g. copper is very toxic if fed in excess to sheep: cobalt deficiency gives rise to 'pine'
- Inhalation of noxious fumes e.g. if slurry tanks are agitated and the shed for the cattle is not well ventilated

## 3. Biological agents

The Biological agents or **pathogens** give rise to the most cases of ill health on farms. The Biological agents are living organisms. There are 5 main types of agents:

- Bacteria
- Viruses
- Protozoa
- Fungi
- Parasites

## 4. Nutritional factors

Here are some common problems associated with nutrition.

- The animal doesn't have enough food - malnutrition
- The animal doesn't have the right type of food and can't make use of it
- The animal is underfeeding compared to the level of production – this will lead to loss of body condition and fertility problems in cattle and sheep
- The soil on which the animal is grazing is deficient in nutrients and causes deficiencies in the animal e.g. copper deficiency - swayback
- Intensive farming systems can create extremes where an animal is pushed too hard e.g. barley beef - can give rise to acidosis
- Bad quality forages contaminated with bacteria e.g. listeria

## 5. Metabolic disorders

Metabolism refers to the processes going on inside the body. A metabolic disorder is a breakdown in one of the main body systems e.g. blood, digestive or mammary.

### Examples



- Bloat - failure to get rid of gas
- Milk fever - insufficient calcium supplied to the blood system
- Pregnancy toxaemia - body fails to get rid of poisons

## 6. Inherited factors

Genetic transfer means that for an ailment to be inherited it must be capable of being passed from parent to its offspring. The parent may not have the condition but could be a carrier.

### Examples

- Entropion – where the eyelids turn inwards in lambs
- Overshot/undershot jaws in sheep
- CVM in cattle

Other suggestions but not proven are:

- The tendency to prolapse in ewes
- The risk of developing mastitis due to teat structure
- Leg and foot weakness due to poor conformation

## 7. Allergic factors

Cattle and sheep are mammals just like humans and are capable of suffering allergies.

### Examples

Bee/ wasp sting  
Antibiotics  
Nettle rash

### Pre-disposing factors

Some factors result in animals being more susceptible than others to ill health when exposed to certain conditions. A pre-disposing factor prepares the way for disease

### Examples

- Pathogens can only gain entry into the body via a cut. The cut would be the pre-disposing factor
- Subclinical deficiencies in minerals lead animals to be more susceptible to ill health
- Stress is a major pre-disposing factor of some common ailments e.g. staggers/milk fever/pneumonia
- Environmental conditions e.g. draughts, wet bedding, dirty environment leads to disease
- Low antibody level due to lack of colostrums leads to infections e.g. watery mouth

- Stages in the production cycle make the animals vulnerable to certain conditions e.g. twin lamb disease in ewes, milk fever
- Unsuitable climatic conditions can lead to stress and poor environment
- Poor or inadequate feeding can lead to certain disorders.

### **Summary**

The causes of ill health can be classified into major groups. The susceptibility of an animal to ill health increases if there are a number of pre-disposing factors present on the farm. The role of the stockperson is to eliminate factors that lead to ill health through good stockmanship.