

UNIT : THE BEEF COW – HEALTH AND WELFARE

STAFF

INTRODUCTION

The purpose of this Unit is to introduce the most common disease and health problems encountered in the beef herd.

On completion of the Unit students will be able to describe and evaluate a range of beef cow health problems.

KEY WORDS

Main disease categories :

- Management diseases e.g. mastitis, lameness
- Infectious diseases e.g. BVD, TB, IBR, leptospirosis and Johne's disease

MANAGEMENT DISEASES

- LAMENESS
- MASTITIS
- PARASITES
- DISORDERS – Hypomagnesaemia ('Staggers'), Milk fever / Hypocalcaemia

INFECTIOUS DISEASES – Tuberculosis (TB), Brucellosis, Bovine Viral Diarrhoea (BVD), Infectious Bovine Rhinotracheitis (IBR), Leptospirosis, Johne's Disease

HERD HEALTH PLANNING – covering fertility, milk quality and mastitis, lameness, infectious and parasitic disease, nutrition, calves and youngstock – measure, manage, monitor

RESOURCES

EBLEX (2005) Beef Action for Profit – 7 – Better Returns from Effective Herd Biosecurity

EBLEX (2006) Beef Action for Profit – 15 – Better Returns from Reducing Herd Lameness

EBLEX (2007) Beef Diseases Directory

EBLEX (2007) Farm Herd Health Planning

HCC (2007) Herd Health Planning – BVD

HCC (2007) Herd Health Planning – Leptospirosis

HCC (2007) Making the Most of your Suckler Cows

HCC (2009) Herd Health Planning - IBR

HCC (2010) A Focus on BVD and Johne's

LEARNING ACTIVITIES

Maintaining herd health is essential if cows are to remain fit, productive and fertile within the herd. Biosecurity, a stress free system, good planning, an effective health plan drawn up with the vet and keen observation on the part of the handler are all key components of ensuring a healthy herd.

Diseases normally fall into two main categories :

- Management diseases e.g. mastitis, lameness
- Infectious diseases e.g. BVD, TB, IBR, leptospirosis and Johne's disease

Cows must be inspected routinely – at least once daily, possibly more at key times – with a trained eye if these problems are to be prevented or controlled.

MANAGEMENT DISEASES

LAMENESS

Lameness is a major health and welfare problem that results in poor body condition, milk production and fertility as well as the need for higher herd replacement rates. Lameness can be caused by :

- Infectious diseases e.g. digital dermatitis or foul in the foot
- Physical or mechanical damage e.g. white line disease and traumatic laminitis

Physical damage can be caused by unsuitable flooring in buildings and rough ground, especially in gateways and on tracks whilst diseases are most problematic when cows spend time standing in slurry or wet bedding and wet ground.

Regular foot trimming, as necessary, carried out by a well trained operator helps to diagnose any problems, improve foot shape to prevent further damage or infection and remove any trapped debris that might cause problems.

Foot bathing can eliminate low level infections while antibiotics and veterinary advice might have to be relied upon in severe or repeat cases.

Animals that do not respond to treatment should be culled – lameness should be part of a strict culling policy.

Condition	Symptoms and causes	Treatment
Digital dermatitis	Inflammation (bacteria) of skin around the hoof – starts at the back of the hoof but spreads	Antibiotics
Foul of the foot	Inflammation (bacteria) between the claws – foul smell if pressed	Footbathing (5% formalin)
Laminitis	Inflammation of the laminae – below the outer horny wall of the foot – caused by physical injury or high concentrate diets	Ration correctly and introduce to high energy diets gradually

MASTITIS

Mastitis is an infection of the udder that can cause the loss of milk production in one or more quarters, severe loss of condition and even death. It can affect maiden heifers as well as in-calf or lactating heifers and cows. Symptoms include :

- Swollen udder
- Unwillingness to allow the calf to suckle
- Stiffness and lameness in the back leg/s

The problem is caused by several different types of bacteria that can be picked up through the teat from a dirty or unhealthy environment and flies may be responsible for spreading summer mastitis.

Several preventative measures can be followed :

- Management at weaning – teat dipping and use of a long-acting ‘dry cow’ antibiotic, the use of anti-fly medication and restricted feeding or use of low quality fodder e.g. straw
- Anti-fly tags or medication during the summer months

PARASITES

Both internal and external parasites can cause problems.

Internal parasites (intestinal 'worms' and liver fluke) can be a problem, particularly in intensive or wet grazing environments and cows may need to be treated with an effective oral, injectable or pour-on anthelmintic at least once a year. Newly bought stock should always be treated as soon as they come onto the farm.

Ecto-parasites e.g. lice are usually only in winter housing and animals should be treated at housing and / or when a problem is detected.

DISORDERS

Hypomagnesaemia ('Staggers') – results from insufficient magnesium in the cow's blood stream and the first symptom is a dead cow. Lactating or newly weaned cows are most at risk and the problem is usually encountered :

- At turnout to lush spring grass
- When cows are stressed when moved or weaned
- When temperatures drop or poor weather are experienced

Prevention is usually the only option and magnesium supplements should be offered in spring and autumn and spring applications of slurry and potash fertilisers to grazed grassland avoided.

Milk fever / Hypocalcaemia – caused by falls in blood calcium levels during or, most commonly, after calving. The problem must be spotted quickly and a sub-cutaneous injection of calcium given.

INFECTIOUS DISEASES

In addition to potentially catastrophic diseases that might infect farms locally, regionally or nationwide such as Foot and Mouth Disease or Bluetongue, possible infectious diseases include :

- Tuberculosis (TB) – herds will be tested on an annual / biennial / four year basis depending on location
- Brucellosis
- Bovine Viral Diarrhoea (BVD)
- Infectious Bovine Rhinotracheitis (IBR)
- Leptospirosis
- Johne's Disease

Often symptoms are obvious but, in many instances, only careful monitoring of herd performance will arouse suspicion. Record keeping, observation and close collaboration with the farm vet are key issues if they are to be prevented or controlled. Biosecurity is a key issue and buying in of stock either avoided or done with careful sourcing and use of quarantine and any infected animal or carrier should be disposed of as soon as possible.

HERD HEALTH PLANNING

A Herd Health Plan is essential if these problems are to be kept under control or prevented.

A plan should cover :

- fertility
- milk quality and mastitis
- lameness
- infectious and parasitic disease
- nutrition
- calves and youngstock

Key themes are:

- Measure – know the base-line, identifying the impact of health on the performance of stock, using good record keeping to allow benchmarking, identification of problem areas.
- Manage – Deal with the most pressing health issues in a planned way – prioritising control measures for these problems using the most effective management methods.
- Monitor – As the year progresses check effectiveness of the plan, using good recording; assessing whether measures have been effective and ensuring that health plans are revised.

CONCLUSION

Tips for herd health :

1. Don't buy in disease – maintain a self-contained herd or buy replacements from sources of known health status
2. Ensure your housing and management practices are sound
3. Monitor disease by blood sampling
4. Work closely with the vet to draw up an effective health plan

5. Record details of herd performance and health and cull infected animals
6. Vaccinate against diseases that cannot be eradicated
7. Get on top of problems quickly

INFORMATION SOURCES