

# Feet and Other Cattle Facts

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Bowness on Windermere provided the setting for the 1987 spring meeting of the British Cattle Veterinary Association. Driving to the venue delegates were greeted by "a host of golden daffodils". The initial part of the programme was entitled 'Feet, Facts and Parasites.' **Dr. Graham David**, Veterinary Investigation Centre, Shrewsbury gave his ideas on behavioural and managemental factors associated with high incidence of lameness in dairy cattle. He began by saying that at one time lame cows were dealt with on an individual basis but now it was very much more a herd problem due to intensification. Despite this there was very little information and much was based on circumstantial evidence. Often veterinary surgeons considered it to be due to feeding and this allowed them 'off the hook.' However, in Israel where milk yields were much higher than Britain, lameness was not a problem.

Dr. David went on to describe 10 herds where the main lesion was solar ulcer. These had various feeding margins and ratios of concentrates to forage. However, most were acceptable, as was the silage pH. Many involved other factors such as a new cubicle house or concrete based cubicles, inadequate or unsuitable bedding or insufficient space. Several problems affected the heifers and there was abrupt introduction to the main herd at calving, abrupt introduction to concrete flooring at calving and abrupt introduction to the buildings. The solar ulcer began as ischaemic necrosis at the sole/heel junction and then increased by pressure. Almost all were on the outside hind claw. Work by ADAS showed the type of bedding in cubicles had led to different lying times. Thus concrete produced 7.2 hours resting whereas Enkamat K produced over 14 hours. When getting up the cow had to put its head forward and this required 0.7-1.0 metre. When this space was not available the cow had to direct its head into the neighbouring cubicle. Problems such as hip, back or knee injuries could occur. Teats could become trapped in some cases cattle got up the wrong way round. All the factors described exacerbated the condition.

Practical ideas on the aetiology of white line disease and solar ulceration were described by **Dr. David Bee** (Liss). He believed practitioners had a role to play in research. Lameness problems are partly due to the type of concrete produced. In his own area aggregate was dredged up and often consisted of many sharp flints. In some herds walking on flint concrete produced white line disease in 35% of cows. The factors involved in the condition were mainly the environment and poor underfoot conditions. He described five herds with over 20% incidence. The herdsman was often partly responsible as the condition was worse when the cows

were pushed along by him. Surprisingly the herds did not show much solar ulceration. David then went on to consider the cause to be multifactorial, ending in damage to the germinal epithelium as well as changes in quality and quantity of horn, allowing entry of environmental organisms. The problem was exacerbated by unfamiliar or uncomfortable conditions, insufficient exercise and social upsets. In addition feeding can lead to chronic ruminal acidosis, followed by laminitis.

**Dr. Alec Russell** (Compton) looked at the influence of sire on lameness in cows by making a retrospective study of material from 5,500 cows at Compton between 1977 and 1983. Solar ulceration was used in the study as it was highly detectable and not easy to misdiagnose. It was not seen before two years of age but occurred at a maximum at six years, and after nine years old the cases deteriorated. In three herds the data were amalgamated, looking at 120 cases out of 550. It was found that some bulls produced more cases of solar ulceration and white line disease. This was just one of many factors which could be studied in this way.

Over the past year there has been considerable interest in the use of ivermectin as a 3,8,13 regime. It has been wondered what immunity would be like in the second grazing season and results of trials at Glasgow and London veterinary schools were presented by **Bill Ryan** (MSD Agvet). The initial trials where cattle were exposed to seeder calves had shown that injecting ivermectin at 3, 8 and 13 weeks produced good immunity to parasitic gastroenteritis. The control calves became ill with husk and some vaccinated with live *Dictyoacaulus viviparus* vaccine also showed disease. In the second year the problem was to see if cattle were immune to disease. Parasitic bronchitis was detected by patent infections and respiratory rate increase but did not occur. In the case of parasitic gastroenteritis there were interesting results in that high levels of infected larvae were found. However there was a 22 kg advantage in weight gain for ivermectin-treated animals compared with others.

Computers are becoming more often seen on farms and one system produced by Dairyfax was described by **Dr. Graham Lake** (Milk Marketing Board). The system involved a television, telephone, jack plug and a keyboard and adapter. The process worked on local telephone call rates and was different from Oracle and Ceefax in that it was capable of two-way communication. It allowed information to be obtained, including quotations and orders for goods and services, messages to be sent to other users, computing to be done and access gained to personal information held on

computers. The system gave access to MMB monthly reports, current information, National Milk Records information, central testing, mastitis, sire match, and EEC information, etc. A quota plan helped the farmer to look at his options to obtain the best margins, taking into account the herd's calving pattern etc. In addition national milk records could be called up, together with action lists for fertility examinations, etc. The system could be changed

should new options be required. Total bacterial counts could be obtained after the first sample. If not in Band A then farmers could take action to make the milk more healthy. Mastitis results were also obtainable. The whole package of Dairyfax was a new service and could also be used by veterinary surgeons provided they received permission from the clients.

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## Growing Cattle Management and Disease Notes

### Part I — Management

by *A. H. Andrews*

167 pages. £7.00 including postage and packing.

Published by the author: A. H. Andrews,  
25 Mardley Hill, Welwyn, Herts. AL6 OTT

This is the first of two volumes dealing with cattle from three months old to their entry to the dairy or suckler herd or their slaughter for beef. It provides a natural progression from the author's previous book "Calf Management and Disease Notes". The book is a simplified and easy to follow text for the non-specialist to learn about this important sector of the agricultural industry.

The initial chapters describe the Cattle Industry, Cattle Growth and Forage and Feed Additives. The various cattle systems are then described logically, dealing with the type of animal required, the system, the production performance on the system, the types of feed and buildings required, the advantages and disadvantages to the farmer, veterinary problems, mortality and the alternatives or improvements available to the system. The systems are described in chapters entitled Intensive Beef Production, Semi-Intensive Beef Production, Suckled Calf Production, System for Purchased Stores and Suckled Calves, Rearing Breeding Replacements.

### Part II — Disease

Price: £15.00 (including postage and packing).

If purchased with Part I, price for Parts I and II: £18.00 (including postage and packing).

All cheques should be made payable to the publisher: A. H. Andrews.

Address:

This book complements Part I which deals with management of cattle after weaning until the time when they are slaughtered for beef or they enter the dairy herd as down calving heifers or pubescent bulls. This is an important and often neglected period in the development of cattle and the book follows on from "Calf Management and Disease Notes".

Part II deals with: Endoparasitic, Alimentary and Respiratory Conditions, Other Infections and Infestations, Urogenital Conditions, Deficiency Diseases, Poisons and Other Conditions.

The diseases are dealt with under the headings of Aetiology, Occurrence, Signs, Necropsy, Diagnosis, Differential Diagnosis, Therapy and Prevention. Of special interest are the differential diagnosis tables which deal with such complex problems as respiratory disease, diarrhoea, skin conditions, etc. Other tables give recommended therapeutic drug dose levels.

The book is aimed at the student and practicing veterinary surgeon. However, it will also be of considerable use to the college-trained farmer, stockman or adviser.