## Contents

Contributors, ix
Preface, xi

### Section I: Modern Cattle Practice

1 Sustainability and One Health, 3  
   Judith L. Capper

2 Modern Cattle Practice: a Blueprint for the Future, 11  
   Jos P. Noordhuizen

3 Education and Cattle Practice: 'What Do We Do? What Should We Do?', 26  
   Peter D. Cockcroft

4 Evidence-Based Veterinary Medicine and Clinical Audits in Cattle Practice, 41  
   Peter D. Cockcroft

5 Practice-Based Clinical Research, 49  
   Mark A. Holmes

6 Expert Witness, 55  
   Paul Roger

### Section II: Practice Management and Professional Skills

7 Practice Management – Developing a Progressive Veterinary Practice, 63  
   Peter Orpin

8 Veterinary Leadership and Communication Skills, 69  
   Michelle McArthur and Adele Feakes

9 Marketing, Promotion and Farmer Education, 77  
   Peter Orpin

10 Veterinary Equipment in Ambulatory Practice, 85  
   Karin Mueller

11 The Practice Laboratory, 97  
   Allan Kessell

12 Safety: Handling and Restraint of Cattle, 110  
   Mandi Carr

### Section III: Clinical Skills

13 Herd Health Investigations in Cattle Practice, 117  
   Cheryl L. Waldner and John R. Campbell

14 Diagnosis and Clinical Reasoning in Cattle Practice, 124  
   Peter D. Cockcroft

15 Special Diagnostic Procedures, 133  
   Phil Scott and Peter D. Cockcroft

16 Bovine Haematology and Biochemistry, 146  
   Allan Kessell

17 Post-Mortem Examination and Sample Taking in Cattle, 161  
   Elizabeth F. McInnes

18 Microbiology for Cattle Practitioners, 175  
   Bryan Markey

19 Epidemiology: the Important Concepts, 184  
   Michael P. Reichel

20 Biosecurity, 189  
   Wayne Boardman

21 Applied Clinical Parasitology for Cattle Practitioners, 198  
   Mike Taylor

22 Cattle Poisoning: Principles of Toxicological Investigations, 211  
   Jo Payne, Chris Livesey and Alan Murphy

23 Antimicrobial Selection in Cattle Practice, 225  
   Peter D. Cockcroft

24 Pain Management in Cattle Practice, 238  
   Peter D. Cockcroft

25 Bull Health and Breeding Soundness, 246  
   Peter Chenoweth

26 Euthanasia of Cattle, 262  
   Karin Mueller
Contents

Section IV: Herd Health
27 Important National and International Diseases of Cattle, 273
   Michael P Reichel and Charles G B Caraguel
28 Population Medicine and Herd Health Planning, 280
   Nigel B. Cook
29 Welfare and Cattle Behaviour, 291
   Clive Phillips
30 Rumen Health in the Dairy Cow, 297
   Dai Grove-White
31 Genetics for the Bovine Practitioner, 305
   Nicholas N. Jonsson and Emily K. Piper
32 Abortion and Perinatal Mortality in Cattle, 312
   Richard D. Murray

Section V: Dairy Cattle Herd Health
33 The Prevalence and Cost of Important Endemic Diseases and Fertility in Dairy Herds in the UK, 325
   Alastair Macrae and Richard Esslemont
34 Dairy Cow Housing Audit, 338
   Chris Watson
35 Cattle Signs, 347
   Kiro Petrovski
36 The Farm Audit: Health and Management of the Calf, 360
   Katrine Bazeley
37 Heifer Rearing, Weaning to Second Calving: Optimising Health and Productivity, 373
   Peter D. Cockcroft
38 The Farm Audit: Health and Management of the Transition Cow, 381
   Ian J. Lean and Peter J. DeGaris
39 The Farm Audit: Clinical Dairy Cow Nutrition, 388
   Tom Chamberlain
40 The Farm Audit: Udder Health, Mastitis Milk Quality and Production, 396
   Andrew Biggs
41 The Farm Audit: Foot Health, Lameness and Footcare, 406
   Nick Bell
42 Reproductive Technologies: On-Farm Applications, 418
   Tim Parkinson
43 Optimising Herd Fertility: the Farm Audit, 436
   Rob Smith
44 A Hazards Analysis Critical Control Point Approach to Improving Reproductive Performance in Lactating Dairy Cows, 450
   I.J. Lean, A.R. Rabiee and N. Moss
45 Practice-Based Dairy Health Planning and Plans, 465
   Jonathan M.E. Statham
46 Organic Dairy Farms, 476
   Kathryn Ellis

Section VI: Beef Cattle Herd Health
47 Beef Suckler Cow Diseases: Monitoring and Surveillance, 489
   Phil Scott
48 Beef Suckler Herd Health: Key Intervention Points, 493
   Phil Scott
49 Auditing Beef Cow Herd Reproduction, 501
   George Caldow and Iain Riddell
50 Farm Audit – Replacement Beef Heifers, 506
   Robert L. Larson
51 Cattle Housing: Design and Management, 517
   Jamie Robertson
52 Bovine Respiratory Disease (BRD): Diagnosis, Prevention and Control, 525
   Peter D. Cockcroft
53 Farm Audit of Beef Cattle Nutrition, 531
   Colin Morgan
54 Audit of Semi-Intensive Beef Finishing Systems, 537
   Peter D. Cockcroft
55 Beef Cattle Feedlots – How to Measure, Manage and Monitor, 543
   Mandi Carr
56 Organic Beef Farms, 549
   Kathryn Ellis
57 Marketing Beef Cattle Practice, 555
   Brad J. White

Appendix I  Vade Mecum of Cattle Conditions, 560
   Kiro Petrovski
Index, 639