



## AUSTRALIAN AND NEW ZEALAND COLLEGE OF VETERINARY SCIENTISTS

### FELLOWSHIP GUIDELINES *Beef Cattle Management and Diseases*

#### ELIGIBILITY

1. The candidate shall meet the eligibility prerequisites for Fellowship outlined in the *Fellowship Candidate Handbook*.
2. Membership of the College must be achieved prior to the Fellowship examination.
3. Membership may be in any discipline.

#### OBJECTIVES

To demonstrate that the candidate has sufficient training, experience, knowledge and accomplishment in Beef Cattle Management and Diseases to be recognised as an authority in this field by his/her colleagues in the veterinary profession.

#### DESCRIPTION (LEARNING OUTCOMES)

The candidate is required to have knowledge and experience of Beef Cattle Management and Diseases sufficient to be recognised by colleagues and Veterinary Boards as a specialist at an international level. Attainment of a Fellowship of the Australian College of Veterinary Science in Beef Cattle Management and Diseases requires knowledge of:

1. A **detailed**<sup>1</sup> **knowledge** of bovine anatomy and physiology.
2. A **detailed knowledge** of the aetiology, pathogenesis and pathophysiology of organ dysfunction in cattle.
3. A **detailed knowledge** of the epidemiology, diagnosis, treatment and control of diseases of beef cattle.

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<sup>1</sup> Knowledge levels:

**Detailed knowledge** — candidates must be able to demonstrate an in-depth knowledge of the topic including differing points of view and published literature. The highest level of knowledge.

**Sound knowledge** — candidate must know all of the principles of the topic including some of the finer detail, and be able to identify areas where opinions may diverge. A middle level of knowledge.

**Basic knowledge** — candidate must know the main points of the topic and the core literature.

4. A **sound knowledge** of clinical pharmacology and therapeutics as applied to beef cattle management and diseases.
5. A knowledge of exotic diseases of beef cattle and their importance to Australia and New Zealand.
6. An understanding of the measures to reduce the public health significance of those diseases of cattle which can be transmitted to man.
7. A **detailed** understanding of anaesthetics, surgery and post-surgical sequelae of surgical conditions of beef cattle.
8. A **detailed knowledge** of reproduction in male and female dairy cattle including fertility, infertility, infectious diseases, breeding soundness, artificial breeding, parturition, obstetrics, dystocia, and neonatology and the post-partum period.
9. A sound understanding of likely future developments in the industry.
10. An awareness and ability to express views on current problems in the industry which affect beef production. Examples of this are animal welfare issues, the effect of using antibiotics in livestock on human health and import and export of gametes and embryos to and from Australia and New Zealand. These may be quite contentious issues with a considerable range of views within the veterinary profession; however, the candidate must be able to express and justify a position on such issues.
11. A familiarity with the current concepts and literature including, but not limited to, the papers published over the previous three years relevant to beef production and medicine.
12. A detailed understanding of beef cattle nutrition as it applies to the Australian and New Zealand beef industry.
13. A **sound** understanding of Beef Production Medicine in Australia and New Zealand including:
  - a. The interpretation and use of diagnostic tests, understanding of concepts of study design, the role of confounding and interpretation of literature.
  - b. Principles of economics. The production, function, profitability, cash flow, basic farm accounting and partial budgeting of Beef operations. The application of simple economics to evaluate disease control or management strategies. The components of economic return and productivity on grasslands farms, feedlots and on combinations.
  - c. Disease control programmes for specific diseases, e.g. brucellosis, tuberculosis, cattle tick and tick borne diseases.

- d. Experience and detailed knowledge of herd health programmes and other clinical and sub-clinical disease recording and health monitoring programmes, and an understanding of the role of computers in data management, diagnosis, nutritional planning, reproductive management and a knowledge of the commonly used programs.
- e. Collection, analysis and interpretation of genetic and production data including bodyweight, and carcass traits.
- f. Genetic and economic improvement through selection and culling and through artificial breeding.
- g. Product Quality Control including factors affecting meat quality and their control.
- h. Rearing calves, weaners and replacement heifers.
- i. Recording of stock movement, purchase and sale, and animal identification.
- j. Diagnosis, recording and management of subclinical disease e.g. mastitis, trace element diseases and parasite infestation.
- k. Management procedures unique to feedlots.

## **EXAMINATIONS**

Refer to the *Fellowship Candidate Handbook*.

## **TRAINING PROGRAMS**

Refer to the *Fellowship Candidate Handbook*.

- 1 The candidate should be involved in patient-oriented (or herd-oriented) teaching rounds, regular teaching seminars, journal and text reviews. Clinically relevant didactic lectures and continuing education conferences should be attended where appropriate. Participation in regional, state, national and if possible international meetings is encouraged.
2. The candidate must make at least one presentation at a national or international scientific meeting.

## **TRAINING IN RELATED DISCIPLINES**

Refer to the *Fellowship Candidate Handbook*.

Candidates for Fellowship in Beef Cattle Management and Diseases must spend time as stipulated by the *Fellowship Candidate Handbook* in any or all of the following related disciplines: Dairy Cattle Management and Diseases, Pathology, Reproduction, Epidemiology and Statistics.

**EXTERNSHIPS**

Refer to the *Fellowship Candidate Handbook*.

**ACTIVITY LOG CATEGORIES**

Refer to the *Fellowship Candidate Handbook*.

The Activity Log should be recorded using *Fellowship Candidate Handbook*, Appendix E2.

The Activity Log summary should be divided by technical procedure using Appendix F3.

**RECOMMENDED READING LIST**

The candidate is expected to read widely within the discipline, paying particular attention to areas not part of their normal work experiences. This list of books and journals is intended to guide the candidate to some core references, including comparative texts, and other source material. Candidates also should be guided by their supervisor. The list is not comprehensive and is not intended as an indicator of the content of the examination. This list should be upgraded by the Chapter.

The most recent editions of the following tests and the recent years of the Journals (especially those published since the last issue of the relevant texts).

**Text Books**

Radostits, Blood and Gay (1994). *Veterinary Medicine* 8th edition. Bailliere Tindall.

Everist, S.L. (1974) *Poisonous Plants of Australia*. Angus and Robertson, Sydney.

Greenough, P.R. et al., (1981). *Lameness in Cattle*. 2nd edition, Oliver and Boyd, London.

Arthur, G.H. et al. (1989) *Veterinary Reproduction and Obstetrics*. 6th Edition, Bailliere Tindall.

Roberts, S.J. (1986) *Veterinary Obstetrics and Genital Disease*, 3rd edition. Published by author, Ithaca, N.Y.

Sloss V. and Duffy J.H. (1980). *Handbook of Bovine Obstetrics*, Williams and Wilkins, Baltimore.

Morrow, D.A. (1986) *Current Therapy in Theriogenology*, (2nd Edition) W.B. Saunders, Philadelphia.

Noordsy, J.L. (1994) *Food animal Surgery*, 3rd Edition, VLS Books, Trenton, New Jersey.

Turner A.S. et al., (1982). *Techniques in Large Animal Surgery*. Lea and Febiger.

Radostits, O.M., Leslie, K.E. and Fetrow J. (1994). *Herd Health, Food Animal Production Medicine*, 2nd Edition, W.B. Saunders, Philadelphia.

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Last updated: November 2021

McDonalds, P. et al. (1988). *Animal Nutrition*, 4th Edition, Longman Scientific and Technical.

Nicholas, F.W. (1987). *Veterinary Genetics*, Clarendon Press, Oxford.

Lot feeding and Beef Production (Proceedings 137) University of Sydney Postgraduate Committee in Veterinary Science (1992)

Smith B.P. (1996) *Large Animal Internal Medicine* Publ. C.V. Molsby, St. Louis.

Post Graduate Committee in Veterinary Science, University of Sydney. "Cattle Diseases" A refresher course for veterinarians. Proceedings No. 42.

Post Graduate Committee in Veterinary Science, University of Sydney. "Beef Cattle Production" (1984) Proceedings No. 68.

Dyer I.A. & O'Mary C.C. (1977) "The Feedlot" 2nd Edition. Lea & Febiger, Philadelphia.

O'Mary C. C. & Dyer I. A. (1978) "Commercial Beef Production" 2nd Edition. Lea and Febiger, Philadelphia.

Alexander G. & Williams O. B. (1973) "The Pastoral Industries of Australia" Sydney University Press.

Molnar I. (1960) "A Manual of Australian Agriculture" 2nd Edition. Heineman, London.

Smith B.P. (1996) "Large Animal Internal Medicine" C.V. Molsby Company, St. Louis.

Howard J. L. (1986) "Current Veterinary Therapy" 2nd Edition, W. B. Saunders, Philadelphia.

### **Periodicals**

Candidates should have been consistent readers of the journals listed under 1 and have had the need to refer from time to time to those listed under 2.

List 1.

Veterinary Record  
 Veterinary Bulletin  
 British Veterinary Journal  
 Journal American Vet. Med. Assoc.  
 Cornell Veterinarian  
 New Zealand Veterinary Journal  
 Australian Veterinary Journal  
 Bovine Practitioner (and Proc. of AABP)  
 Theriogenology

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Preventive Veterinary Medicine  
Journal of Dairy Science  
Veterinary Clinics of North America

List 2

Proceedings of World Buiatrics Conferences  
American Journal Veterinary Research  
Journal of Dairy Research  
Journal of Comparative Pathology  
Journal of Animal Science  
Onderstepoort Journal of Veterinary Research  
Canadian Journal of Veterinary Research  
Journal of S. African Veterinary Association

### **FURTHER INFORMATION**

For further information contact the College Office

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