

The Royal College of Veterinary Surgeons
Specialisation and Further Education

**DIPLOMA IN ANIMAL WELFARE SCIENCE, ETHICS AND LAW
SPECIFIC GUIDANCE NOTES FOR CANDIDATES**

[These notes must be read in conjunction with the B1 General Guidance Notes to Candidates]

MEMBERSHIP OF THE ROYAL COLLEGE OF VETERINARY SURGEONS

1. It is a requirement of the Animal Welfare Science, Ethics and Law Board that ALL candidates entering for the Diploma are Members of the Royal College of Veterinary Surgeons (MRCVS).

OBJECTIVES

2. The Diploma examination addresses the same subject areas as the Certificate. To meet the standard required for the Diploma, candidates must demonstrate a substantial increase in depth of knowledge and understanding of these subjects relative to that required for the Certificate. In addition they must demonstrate their ability to practise these specialist skills, acquired through further education and practical experience. The Diploma examination will test this ability to practise specialist skills, especially in the following areas:
 - a) The ability to analyse an issue in animal welfare according to first principles of science and ethics. (Covered by Paper II).
 - b) The ability to design and conduct an experiment to examine welfare issues according to scientific principles. (Covered by the Dissertation).
 - c) The ability to assess both the welfare state of animals (in a farm, zoo, laboratory, riding establishment etc.) and the provision of resources and management necessary to ensure good welfare. (Covered by the Practical).
 - d) An understanding of the workings of UK and international law as it relates to animal welfare and the ability to work with the law in the interests of animal welfare at the level of the individual animal, the livestock unit, livestock system or national policy. (Covered by the Case Reports).
 - e) An ability to assess the causes of suffering in animals and the actions necessary to prevent or alleviate 'unnecessary suffering', and the ability to defend this assessment under challenge. (Covered by the Oral II).

SPECIFIC EXPERIENCE

3. Candidates must have spent a period of time by the time of the examination, having substantial involvement in the field of animal welfare science, ethics and law.
4. 'Substantial involvement' is defined as **at least 30 hours per week** dealing with and advising on welfare issues, visits to farms for this purpose, diagnostic work, epidemiological investigations, research, literature reviews, preparation of reports, papers and articles and time spent in related activities. The Board would expect that a candidate would be involved in a variety of these activities.
5. As a result of devolution, there are significant differences in the provisions of animal welfare legislation as it relates to the constituent parts of the United Kingdom (England, Wales, Scotland, and Northern Ireland). Candidates should have a knowledge and understanding of the relevant law in each jurisdiction; to be able to compare and contrast both the substance of the legislation and its enforcement in the constituent parts of the United Kingdom; and to appreciate the reasons for, and the implications of, the variation in the law and its implementation as between England, Wales, Scotland and Northern Ireland.

Approved Centre or Approved Practice

6. The **normal procedure** for candidates wishing to gain experience for a Diploma is to register at an **Approved Centre** or an **Approved Practice**. These are defined in byelaws 5.4 and 5.3 respectively.
7. **HOWEVER**, as the 'Approved Centre' concept does not fit easily with Animal Welfare Science, Ethics and Law, the Board has agreed the following procedure for the foreseeable future:

Approved Tutor

8. Candidates wishing to apply to enrol for the DWEL **must** provide the following for the Board's consideration and approval:
 - a) A record of their veterinary experience over the previous 3 years, indicating a significant commitment during this time to the study or implementation of aspects of animal welfare as defined within the syllabus for the Diploma.
 - b) Evidence of formal education in Animal Welfare Science, Ethics and Law. Normally this would imply possession of the CertWEL.
 - c) Provisional identification of an **Approved Tutor** who would supervise the dissertation, case reports and training programme.
 - d) Outline of the proposed dissertation and specialist training programme necessary to meet the requirements for approved practice.
9. *The Board has discretion to increase the requirements for experience for any candidate above the minimum specified if it is considered to benefit the candidate.*
10. Experience accepted for the Certificate will count towards the experience required for the Diploma, at the discretion of the Board.

11. It would be valuable if at least one day (preferably one whole case if longer) were spent in Court during a welfare case, observing and (if possible) seconded to one or other Expert Witness). This might be arranged via the Veterinary Defence Society or the RSPCA.
12. It would be rare for the Diploma Examination to be taken four years after graduation. Rather, it would normally be taken some four or five years from the time when the candidate began to become involved full-time in animal welfare science, ethics and law - and this would probably have been two or three years (or more) after graduation.

FINAL APPROVAL OF EXPERIENCE ADDITIONAL REQUIREMENTS

Training Programme

13. In order to gain final approval of experience, candidates must provide evidence of **at least 200 days spent acquiring specialist experience through a structured training programme** specifically related to the syllabus for the Diploma. This must be planned and carried out under close tutorial supervision from the approved adviser. Normally a provisional programme would be planned with the Approved Tutor prior to the time of the initial application for enrolment. Relevant experience obtained before the initial application may be taken into account.
14. Examples of the type of experience which **may** be acceptable to the Board are:
 - a) a period of study/research at a laboratory involved in welfare science (this **could** be recognised as an 'Approved Centre' [Refer to Byelaw 5.4.]),
 - b) work as/with a Named Veterinary Surgeon (NVS) responsible for animal welfare within the Animals (Scientific Procedures) Act 1986.
 - c) direct experience of legal proceedings on matters of animal welfare.
 - d) welfare inspections of farms for DEFRA,
 - e) an approved programme of study in Animal Welfare Science, Ethics and/or Law,
 - f) participation in epidemiological or other on-farm studies of welfare problems (e.g. cattle lameness),
 - g) work as an SVS veterinarian.

ALL examples should involve a formal element of welfare study which should formally involve the candidate's Approved Tutor/adviser.

15. The candidate may wish to concentrate on one aspect of the three subjects (i.e. Animal Welfare Science, Ethics and Law) to reflect their own interests in the dissertation. They will need to show how that topic links in with the other two (or sometimes not in the case of Ethics and Law).

THE EXAMINATION

16. The examination consists of three Sections:

- a) A Dissertation PLUS 2 case reports
- b) TWO written papers, and
- c) a written assignment, an oral and practical examination .

SUBMITTED WORK FOR EXAMINATION

Dissertation AND Case Reports

17. As part of the Diploma examination, candidates are required to develop new expertise, which could include original research, particularly via their submitted work which will consist of a Dissertation AND **TWO** Case Reports, PLUS a written report of a specific assignment designed to test the candidate's ability to use their knowledge of welfare law.

Dissertation

18. Candidates will be expected to provide convincing evidence of their ability to link **all three of the major areas** of the discipline i.e. Animal Welfare Science, Ethics and Law in the Dissertation and the Case Reports, notwithstanding that on occasions there may be inherent tensions.

19. A preliminary choice of in-depth subject may be made at the time of enrolment (on Form E1). A final choice must be made before **1 November** prior to entry to the examination.

20. Candidates are asked, when proposing a subject, to submit an outline showing clearly what the dissertation will cover and how much of the work will be undertaken by the candidate personally.

21. Candidates may not include work, which has already been included in a submission for any other RCVS postgraduate qualification **unless** that work forms only a minor part of the submission, the major part of which must be distinct from any previous submission for any other postgraduate qualification.

22. Candidates should declare on Form E1B which part, if any, has previously been used for another postgraduate qualification and outline how it is proposed to re-work/develop the work in respect of this Diploma.

Dissertation Word Count

23. A Dissertation should have a total text word count of **5,000 – maximum of 10,000 words** (excluding appendices and references) **(total word count to be shown on the cover of the Dissertation)**.

Format

24. The pages should be numbered, and each sub-section should also be numbered using the decimal format (eg. 1.1, 1.2, 2.1, 2.2 and so on). Sections should include, at least -

Introduction
Description of work carried out
Results
Discussion
Conclusion
References

25. Any supporting papers should be contained in appendices which should be limited to 10 pages maximum. Illustrations and tables should be included as appropriate. The dissertation should be of a high standard with good literary and scientific presentation.

Case Reports

26. These should consist of **TWO** Case Reports which explore a common unified theme on an issue or problem of substance e.g. 'Care and Animal Use', 'Mutilations' and which discuss a particular ethical/legal issue set in context.

Case Report Word Count

27. **The total word text count should not normally be more than 3,000 words per case report (EXCLUDING appendices, which again should be limited to 10 pages maximum) such as references, tables and figures**. The word count must be shown on the cover of each case report. Candidates are asked to submit an electronic version of their submitted work together with their hard copy. This will be retained at RCVS unless requested by the examiners for purposes such as checking the word count. The electronic version should be Microsoft Office 2000 or XP compatible and should be submitted on either CD or floppy disc/s. Please ensure that the disks are easily identifiable by placing them in an envelope with your name, and 'Electronic version of submitted work for Diploma In Animal Welfare Science, Ethics and Law' marked clearly on the front.

Marks Scheme

28. The submitted work will be graded "Good Pass"; "Pass" or "Fail":

- **Good Pass** – the work will be lodged in the RCVS Library as a suitable example for future candidates.
- **Pass** – The work is adequate to enable the candidate to proceed to the remaining sections of the examination, but the submitted work may need to be revised by the date of the clinical, oral and practical for lodging in the Library if the candidate is successful in the examination as a whole.
- **Fail** – the work is not adequate to enable a candidate to proceed to the remaining sections of the examination for the year in question.

WRITTEN EXAMINATION

Format

29. Candidates are warned that answers should be given specifically and that illegible handwriting may result in examiners being unable to award marks for information which candidates intended to convey.
30. This Section consists of TWO 3-hour written papers in the following format:

Written Papers

Paper I - 3 hours (covering the breadth of the General Syllabus)

Section A - consisting of 8 **compulsory** short questions

Section B - a **choice** of 3 out of 6 x 30 minute questions.

Paper II – 3 hours (Structured Argument) consisting of a choice of 1 out of 6 topics.

In this Paper, you will be asked to write a 3-hour essay on ONE of SIX broadly chosen topics. There is no simple 'right' answer to any of these questions. You will be marked on the basis of your ability to:

- a) structure and analyse your argument from first principles of animal science, ethics and law
- b) illustrate your structured argument with evidence from published work and practical experience
- c) justify your conclusions on the basis of a) and b) above.

Candidates should 'quote' names and references in all three of the areas of animal welfare science, ethics and law. It will not, however, be necessary to cite the exact reference but, candidates will be expected to illustrate their essays with reference to published work, (e.g. "Nicol demonstrated that hens who had learnt to associate dyed grain with food aversion, attempted to convey this learned behaviour to their chicks'.) "

Marks Scheme for the Written Papers:

31. Written examination:

Paper I (General Syllabus) will be marked out of 50 marks

Paper II (Structured Argument) will be marked out of 50 marks.

WRITTEN ASSIGNMENT, PRACTICAL AND ORAL EXAMINATIONS

32. There will be a written assignment, a practical and two orals:

Written Assignment

33. Candidates will be required to submit a specific written assignment designed to test their ability to use their knowledge of welfare law.
34. The assignment for each candidate will be set by the Board in November after approval of the topics chosen for the Dissertation and Case Reports. It will take into account the topics chosen by each candidate and will be examined by a Specialist Examiner who is fully competent in animal welfare law.

Practical

35. This will take 1 hour as follows:

- 30 minutes in which the candidate will make an inspection of a case/situation and conduct a welfare audit of an animal unit (e.g. farm, kennels, laboratory animal colony), in the presence of one examiner and a stockperson, and assess the unit with regard to the provision of resources and the welfare of animals and prepare their evidence for an audit e.g. Quality Assurance for Freedom Foods.

AND

- 30 minutes in which the candidate will be required to present a balanced report, evaluating their evidence to emphasise both the strengths and weaknesses of the unit.

Oral I - (30 minutes)

- The candidate will be questioned on the Dissertation and their Case Reports plus questioning on the overall content of the syllabus, as well as exploring further any issues arising from the written papers.
- Special emphasis will be placed on the candidate's ability to relate general principle to specific instances and personal experience, and to provide clear analysis and practical advice.

Oral II - 30 minute oral on the written assignment

- The candidate will receive, at least 1 month in advance, material relating to an animal welfare issue.

The candidate will be required to prepare a written statement of 1000 words in the light of this material. The exact form will be determined by the examiners at the time it is set.

- For information - the difference from the first oral examination is that there will be no requirement to prepare the report for the 'benefit' of prosecution or defence.

Marks Scheme for the Oral/Practical:

36. The breakdown of marks in the oral and practical examination, out of a total of 100, is as follows:

Practical – 40 marks

Oral I (Dissertation and Case Reports) - 30 marks

Oral II (Cross Examination and Written Assignment) – 30 marks

SYLLABUS AND READING LIST

37. A detailed syllabus and commentary is provided which gives an indication of the depth and range of knowledge required.

The Law Element

38. Candidates who have attained the Certificate can be assumed to have a good general understanding of animal protection legislation. The object of the law element of the Diploma is to enable candidates to demonstrate an advanced understanding of the way in which legislation is drawn up and applied in practice. The object is to equip the candidate to:

- act as an expert witness
- play an informed role in public policy-making
- play an informed role in the policy-making of the veterinary profession
- participate in statutory inspections and other administrative enforcement mechanisms
- advise commercial and other non-statutory bodies.

Reading List

39. A reading list is provided. However, in view of the increasing ease of access to the internet, and ready availability of on-line literature searches, the Board has agreed that the existing reading lists should be frozen in 2002 and that in 2-3 years' time these lists will be withdrawn altogether. In future, candidates will be expected to do their own research and are encouraged to seek advice on suitable reading matter from their advisers and from the RCVS Library and Information Services. The RCVS Library produces quarterly awareness updates on animal welfare issues.

ADVISERS

40. It is likely that most candidates will concentrate on one of the three aspects (Science, Ethics or Law) for their specialist study and dissertation. Nevertheless, they will need to demonstrate a significant increase in depth of understanding beyond that required for the Certificate in all three aspects. We recommend therefore that candidates seek formal assistance from advisers competent to supervise structured programmes of directed self-education in all three aspects.

41. Candidates are requested to approach an adviser, in advance of their enrolment. A list of Certificate and Diploma holders in Animal Welfare, Science, Ethics and Law, can be found at the back of the RCVS Register of Members. It is then for the candidates to take the initiative and bear any expense involved in contacting or visiting their advisers.

42. All advice for RCVS Certificates and Diplomas is given on a 'goodwill' basis and there is no provision for payment of a fee/honoraria by the RCVS to advisers.
42. There have been requests by some advisers in Animal Welfare Science, Ethics and Law, who are non-veterinarians, for payment for assisting candidates in the preparation of their submitted work. Any payment for such advice is **entirely a matter between a prospective adviser and a candidate**.
43. Candidates should ensure that they copy the current information documents contained within this information pack for their respective advisers. In particular, they should ensure that their adviser has an up to date copy of the requirements on the submitted work (B2), and the Guidance Notes to advisers.

ATTENDANCE AT SHORT COURSES

44. There is provision in the byelaws to make attendance at short courses compulsory for those wishing to take the Diploma examination. The Board is not, for the time being at least, introducing such a compulsory requirement, but it may advise candidates when they enrol of any additional training which, in the Board's opinion, would be of benefit to them, and will give advice on where this can be obtained.

ADDITIONAL INFORMATION RELATING TO THIS QUALIFICATION

45. Candidates may wish to use the library of tapes and videos at the University of Birmingham Medical School - (Contact: Professor D B Morton - telephone 0121 414 3616, FAX 0121 414 6979). Videos are also available for viewing at the Cambridge University Department of Clinical Veterinary medicine - telephone 01223 337643).

MEMBERSHIP OF VETERINARY ASSOCIATIONS/SOCIETIES

46. Enrolled candidates are encouraged to become Members of relevant societies and associations e.g. Animal Welfare Science, Ethics and Law Veterinary Association, and attend meetings.

Contact Address: Mr G J P Dixon MA VetMB CertWEL MRCVS
Hon. Secretary, AWSELVA
Dept of Clinical Veterinary Science
Division of Animal Health and Husbandry
Langford House
Langford
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BS40 5DU

Website: <http://www.awselva.co.uk>

ABBREVIATION FOR QUALIFICATION

47. Successful candidates are permitted to use the abbreviation 'DWEL' after their names, in the RCVS Registers of Members, and on practice plates, stationery, etc. Certificate holders who obtain the Diploma in the same subjects cease to use the Certificate abbreviation.

December 1997

Revised Feb 1998, Nov 1998,

Further revised following the Examiners' meeting in February 1999

Revised Nov 1999, Nov 2000.

Nov 2001, Nov 2002

April 2008

Last revised April 2009

**GENERAL GUIDANCE NOTES FOR DIPLOMA CANDIDATES
ON THE PREPARATION OF A DISSERTATION**

The dissertation should be presented in the normal format for a scientific article unless there are strong reasons why this is not appropriate: any different format should be approved by the supervisor before the first draft is produced.

The normal sections are:

Introduction

This should include a brief review of the literature on the subject giving appropriate references. References may be cited in one of two ways e.g. 'Smith and Brown (1993) found that parasites increased in July' or 'Previous studies have shown that parasites increased in July (Smith and Brown, 1993)'.

It should be a critical review to indicate what is already known and where the gaps are in our knowledge which you have set out to remove. At the end of the introduction, it should be possible to say ' In the light of the literature I have reviewed, the aims of this study are to plug the following gaps by carrying out the following work' or something to the same effect!

Materials and methods

This should include an account of the animals or flocks or specimens used and the experimental methods and techniques you have used in order to obtain your results. There is no need to give details of well-known techniques but it is important that a reader should be able to repeat the work and certainly be able to decide on the reliability of your techniques, which obviously affect the value of your results. If you use techniques developed by other people, you should refer to a book or journal where the details are published.

Results

There should be a logical description of what you have found by the techniques you have described. This section may benefit by the inclusion of tables, graphs, figures or photographs which should have captions which are sufficiently self-explanatory to stand alone, though they should also be referred to in the appropriate part of the text. This section should not contain any comments on the significance of the results or to any inconsistencies or problems encountered.

Discussion

This section should contain a critical discussion of the significance of the results and of the extent to which the aims described in the introduction have been achieved. It should also relate the new findings to previous work and it may therefore be necessary to quote again some of the papers cited in the introduction but for a different purpose. In the introduction, it was to show where the gaps were, here it is to show how your results agree, disagree or add to the previous work. Any conclusions or new ways of tackling the problem should be indicated here.

References

Unfortunately, there are a number of different ways used by different journals to list references in this list, so it isn't possible to lay down the one correct way! Since you might also wish to write your work as

a paper for a journal, however, it is best to use a style which can be adapted to any journal, which means that the reference should be cited in full as follows:

Smith, M. J. and Jones, W. B. (1993). The seasonal fluctuations in parasite numbers in sheep in Britain. *Veterinary Record*, 134, 123 - 134.

A very careful check should be made to ensure that the references in the text are exactly the same as those in the list. (Trying this out on articles in any journal will give you a good idea as to the care with which the articles are edited by the authors or the journal).

Acknowledgements

This section gives you the opportunity to thank anyone who has helped with the work or the dissertation.

Appendices

If there is a great deal of detailed data such as laboratory findings, it may be helpful to place most of it in appendices with only summaries such as mean values in the results section.

*Prepared by Professor M J Clarkson
April 1997*

***Syllabus for the RCVS Diploma in
ANIMAL WELFARE SCIENCE, ETHICS AND LAW***

Commentary

Candidates sitting the Diploma will be expected to have the knowledge required for the Certificate but in greater depth and breadth.

In pursuing this syllabus, candidates would be expected to demonstrate familiarity with, and even an ability to use effectively, relevant primary materials such as the Official Journal of the European Communities; legislation; law reports, Hansard; government and parliamentary publications; other official publications.

Candidates will be required to present evidence of specialist expertise acquired through a structured training programme appropriate to the requirements of the Diploma. This must be carried out under close tutorial supervision from an approved advisor. Normally, it will involve study in depth of a chosen, specialist topic in animal welfare. Nevertheless, candidates should also provide evidence of how they have advanced their understanding of topics other than their selected area of specialist study. For example, the selected topic (and principal tutor) may be mainly concerned with animal welfare science, but, in this case, candidates must also demonstrate how they have advanced their understanding of ethics and law and their application to animal welfare. We recommend therefore that candidates seek formal assistance from more than one advisor to supervise their advanced study in all three aspects of the Diploma.

The following syllabus addresses the 'core' knowledge base for the Diploma and should be considered as additional (or complementary) to the detailed list of topics provided in the syllabus for the Certificate. This list of individual topics is equally pertinent to the Diploma and need not be reproduced here. Diplomates will, however, be expected to show a much deeper level of understanding of the scientific and ethical principles that should underpin both our current approach to animal welfare and any actions designed to improve it. Equally, it will not be sufficient for Diplomates simply to know the Law as it relates to animal welfare; they should also be equipped to undertake an analysis of the strengths and weaknesses of existing law and investigate opportunities for improvements of welfare through existing or new legislation. The topics listed below are intended to highlight only the most important of these underpinning principles.

In the examination, special emphasis will be placed on the candidate's ability to relate general principles to specific circumstances and to provide clear analysis and practical solutions to real problems.

1. Animal Welfare Science

1.1. The scientific basis of good husbandry

- practical recognition and assessment of animal wellbeing based on the principles of the 'Five Freedoms'
- contemporary approaches to the scientific assessment of animal stress and wellbeing based on an appropriate selection of scientific disciplines including ethology, physiology and neuroscience
- methods for assessing and enhancing animal environments and husbandry systems e.g. for the purposes of quality assurance
- analysis of the economics of conventional and 'high welfare' systems of husbandry
- principles for assessing stockmanship and education of stockpeople.

1.2. The scientific basis of animal suffering and wellbeing

- genetic, environmental and evolutionary determinants of behaviour in simple and higher animals
- the nature of motivation and cognition in higher animals
- humane approaches to the manipulation of animal behaviour
- the nature of pain, fear and problems of 'affect' (mood).

1.3 The impact of science on animal welfare

- licensed scientific procedures likely to cause 'pain, distress or lasting harm'
- commercial application of scientific procedures: e.g. embryo transfer, genetic engineering, cloning.

2. Bioethics

2.1. The nature of scientific truth and moral value

- rational assessment of objectivity and subjectivity in science and ethics
- morality v. social biology as a basis for human behaviour.

2.2. The philosophical issues and concepts involved in animal use

- utilitarian v. deontological (duty based) considerations
- analysis of harms and benefits (e.g. in animals used for research)
- emerging ethics: e.g. patenting of animals, xenotransplantation.

2.3 Ethics and human behaviour with respect to animals and animal use

- the historical and cultural foundations of human perception and treatment of other animals
- morality v. sentiment as a basis for concern regarding animal welfare
- the ethical basis of professional conduct - the concept of 'virtue'
- conflicts between human and animal needs (e.g. animals in sport, research, guide dogs)
- conflicts between individual animal welfare and holistic environmental concerns.

3. Law

Candidates who have attained the Certificate can be assumed to have a good general understanding of animal protection legislation. The object of the law element of the Diploma is to enable candidates to demonstrate an advanced understanding of the way in which legislation is drawn up and applied in practice. The object is to equip the candidate to:

- *act as an expert witness*
- *play an informed role in public policy-making*
- *play an informed role in the policy-making of the veterinary profession*

- *participate in statutory inspections and other administrative enforcement mechanisms*
- *advise commercial and other non-statutory bodies.*

Candidates will therefore be required to demonstrate an understanding of:

- *The origin of legislation and the relationship between different types of rules*

WTO; Council of Europe Conventions; European Union Law, Acts of Parliament; secondary legislation enacted at Westminster; legislation emanating from the Scottish Parliament, the Welsh Assembly and the appropriate body in Northern Ireland; codes of practice; recommendations; formal guidance; advice; and the role of the courts in developing case law.

- *The factors which influence the development of public policy and legislation*

Public opinion; pressure groups; scientific evidence; recommendations of advisory bodies such as FAWC and the APC; the impact of MPs and members of the devolved bodies; economic and social considerations; constraints on national legislation arising from the WTO and the European Union.

- *The policy-making process*

The way in which EU institutions, national government departments, the devolved executives, local authorities, and other relevant public bodies make policy and administrative decisions.

- *The legislative process*

EU legislation; national primary and secondary legislation; legislation passed by the devolved bodies; the impact of the WTO and EU law.

- *The nature of discretionary administrative power exercised by public bodies*

Powers exercised by SVO's, Home Office Inspectors and relevant local authority officers; statutory powers and duties of veterinarians' powers of licensing authorities; the significance of judicial review.

- *Enforcement mechanisms not involving the courts*

Grant, renewal and revocation of licences; licence conditions; inspection; codes; recommendations; guidance; proficiency criteria for those responsible for the care of animals; assurance schemes, the role of the veterinarian in relation to such enforcement.

- *Enforcement through the courts*

WTO dispute resolution; European Court of Justice; judicial review; prosecutions.

- *Regulation of the veterinary profession*

Relevant European and domestic Law, Code of Professional Conduct; the maintenance of professional standards.

Originated and approved by Council November 1997

Revised February 2000

DIPLOMA IN ANIMAL WELFARE SCIENCE ETHICS AND LAW

Candidates should note that the reading list for the SUBJECT was frozen in 2002 and will eventually be withdrawn. Candidates are expected to research the literature for themselves and are recommended to make use of the RCVS Library and Information Service for this purpose (<http://www.rcvslibrary.org.uk> , e-mail - library@rcvs.org.uk or telephone 020 7222 2021). Candidates should also seek advice on suitable reading matter from their advisers.

READING LIST

1. Animal Welfare Science - Core Reading

Appleby, M.C. and Hughes. B.O. Animal Welfare CAB International 1997

Broom, D.M. & Johnson, K.G. Stress and Animal Welfare. London: Chapman and Hall 1993.

Dawkins, M.S. Through our eyes only ? A journey into animal consciousness. Oxford: W.H.Freeman 1993.

Farm Animal Welfare Council (FAWC) Reports – All

All publications from FAWC are constantly added to therefore, candidates should ensure that they have a complete up-to-date set which can be obtained from: FAWC, 1A Page Street, SW1P 4PQ or Mr M Mulbocus on 0207 904 6535

Lawrence, A.B. and Rushen, J.(eds). Stereotypic Animal Behaviour: Fundamentals and Applications to Welfare. CAB International 1993

HMSO: Code of Practice for the housing and care of animals in designated breeding and supplying establishments. HMSO London

DEFRA. Codes of recommendations for the welfare of livestock. Sheep, cattle, pigs, domestic fowls etc. London: DEFRA publications 1990

Manning, A.N. & Dawkins, M.S. An introduction to animal behaviour. 5th ed. Cambridge: Cambridge University Press ISBN 0-521-57024-7 1998.

Spedding, C.R. W. (2000) Animal Welfare. Earthscan Publications ISBN 185 383 6729

Webster, J. In: Animal Welfare. A cool eye towards Eden. ISBN 0-632-03928-0. Oxford: Blackwell Science 1995

Animal Welfare Science - Additional Sources of Reference

Paton, W. Man and Mouse. Animals in Medical Research. Oxford University Press, 2nd ed. 1993

Dantzer, R. Stress and Immunity: what have we learned from psychneuroimmunology. Acta Physiologica Scandinavica 161: No5640 :43-46 1997

- Dawkins, M.S. From an animal's point of view: motivation, fitness and animal welfare. *Behav. Brain Sci.* 13:1-9, 1990
- Dawkins, M.S. *Animal Suffering: the Science of Animal Welfare*. London: Chapman and Hall 1992
- Fraser, A.F. & Broom, D.M. *Farm Animal Behaviour and Welfare*. London, Bailliere Tindall 3rd Ed. 1990
- Fraser, A.F. *The Behaviour of the Horse*. CAB International ISBN 0-851-98785-0 1992
- Grandin, T. (ed) *Livestock handling and transport*. CAB International 1993. (New edition due out in 2000)
- Gregory, N.G. & Temple Grandin *Animal Welfare and Meat Science*. CAB International ISBN 0-851-9929-6 1999
- Griffin D, R. *Animal Minds*. University of Chicago Press. Introductory chapters ISBN 0-226-30863-4 1994.
- Harrison, R. *Animal Machines*. London, Vincent Stuart 1964
- Hessa, D. Kneirim, U. vanBorrell, E. Herrman, H. Koch, L. Muller, C. Rauch, H.W. Sachser, N. Schwabenbauer, K & Zerb, R. F. Voluntary procedure for animal housing equipment according to Animal Welfare Act of 1998 *Deutsche Tierarztliche Wochenschrift* 1: No 4:138-141 1999
- Jessup, D.A. Veterinary contributions towards improving capture, medical management and anesthesia of free-ranging wildlife. *Journal of the American Veterinary Medical Association* 200:653-658 1992
- Jones, R.B. & Hocking, P.M. Genetic selection for poultry behaviour. *Animal Welfare* 8: No 4:343-359 1999
- Kesslak, J.P. So, V. Gomez – Pinilla, F. Spatial learning and physical activity contribute to the induction of fibroblast growth factor: neural substrates for increased cognition associated with exercise. *Neuroscience* 85: No1:53-61 1998
- Kestin, S.C. Su, G. & Sorensen, P. Different broiler crosses have different susceptibilities to leg weakness in broiler chickens. *Poultry Sci.* 78:1085-1090 1999
- Kleiman, D.G. Allen, M.E. Thomson, K.V. Lumkins, S. (eds) *Wild Animals in Captivity: Principles and Techniques*. University of Chicago Press ISBN 0-226-44003-6 1997
- Martin, P. & Bateson, P. *Measuring behaviour: an introductory guide*. 2nd ed. Cambridge University Press 1993
- McGreeby, P. & Nicol, C.J. Physiological and behavioural consequences associated with short term prevention of crib biting in horses. *Physiology and Behaviour* 65: No 1:15-23 1998
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Meat Hygiene Service – Manual and Videos (ONLY available from course).

Useful journals for current literature

Animal Welfare
Applied Animal Behaviour Science
Journal of Applied Animal Welfare Science (from June 1997)
Laboratory Animals
New Scientist
Research in Veterinary Science
Veterinary Record

Information Resources (eg databases for literature searches)

Animal Welfare Information Centre
National Agricultural Library (AWIC)
10301, Baltimore Blvd., Room 05
Beltsville, MD 0705
301 504 612 Fax 301 504 5472

Animal Welfare Institute
PO Box 3650
Washington DC 0007
20 337 233 Fax; 02 338 9478

Applied Research Ethics
National Assoc. (ARENA)
13 Boylston Street - 4th Floor
Boston, MA 02116
518 44 3510 Fax; 518 44 3560

Center for Animals in Public Policy
Tufts University
200 Westboro Road
North Grafton, MA 01535
508 839 5302 Fax 508 839 953

The Hastings Center
255 Elm Road
Briarcliff Manor
NY 10510
914 762 8500 Fax 914 762 2124

National Institute of Health
National Library of Medicine
Bethesda, MD 20894
301 496 3147 Fax 301 480 3537

Scientists Center for Animal Welfare (SCAW)
4805 St Elmo Avenue
Bethesda, MD 20814
301 654 6390

University of California Alternatives in Education, Research & Testing (UCALERT)
UC Center for Animal Alternatives,
University of California,
Davis School of Veterinary Medicine.

Web Sites and Addresses

RSPCA: international@rspca.org.uk
<http://www.rspca.org.uk>

Animal Welfare: <http://www.vetinfo.demon.nl/aw/index.html>

DEFRA: <http://www.defra.gov.uk/animalh/welfare>

Updated November 2002

Details of the establishment in which experience is being gained over AT LEAST THREE CALENDAR YEARS to meet the requirements of the byelaws for the **Diploma in Animal Welfare Science, Ethics and Law:**

(If more than one establishment please photocopy this form and complete in respect of each such centre)

1. Name of veterinary centre and address _____

2. Description of your post (i.e. title) and date of taking up employment (and date of leaving if relevant) at the establishment:

3. Brief description of the type of establishment and, if appropriate, numbers of Veterinary Surgeons usually working in your place of employment:

6. Please list any previous (or subsequent) employment relevant to animal welfare science, ethics and law and give brief details:

7. Please list below any other involvement in animal welfare science, ethics and law including membership of relevant associations, attendance at short courses, meetings, symposia, etc., and publications.

8. Applicants MUST indicate below how they propose to gain the required experience in work specifically related to the Syllabus.

Provisional Training Programme

9. Please attach the proposed Training Programme you have agreed with your 'Approved Tutor' indicating the type of experience you expect to obtain.

Signature _____

Date _____

DIPLOMA IN ANIMAL WELFARE SCIENCE, ETHICS AND LAW

CASE REPORTS

(For use where a candidate has not previously applied for approval)

Application to be completed and returned to the RCVS, Belgravia House, 62-64 Horseferry Road, London SW1P 2AF **no later than 1 November in the year prior to that in which it is planned to enter for the examination.**

1. **NAME** in full (block letters)

2. **PROPOSED TITLES OF TWO CASE REPORTS (on a unified theme)** - giving a brief summary of content of each

UNIFIED THEME: _____

Signature _____

Date _____

Please enclose a S.A.E. for acknowledgement

Specialisation and Further Education

DIPLOMA IN ANIMAL WELFARE SCIENCE, ETHICS AND LAW

Application for FINAL approval of experience and for permission to submit an entry to the next examination

to be completed and countersigned by your Adviser before being returned to the RCVS, Belgravia House, 62-64 Horseferry Road, London SW1P 2AF

by 1 November prior to the examination.

1. **NAME** in full (block letters) _____

2. **DEGREES/DIPLOMAS/CERTIFICATES** _____
in abbrev.form

3. **ADDRESS** for all correspondence (block letters) _____

4. **TELEPHONE NO(s)** for contact during day _____

FAX NO for contact during day _____

5. **DATE OF ENROLMENT** _____
MONTH/YEAR)

6. **PERIODS OF EXPERIENCE BEING OFFERED** to meet the requirements of the byelaws

6.1. **General experience:** Please provide evidence of your relevant general Veterinary experience over the last 3 years as described in Para 6a of document B2 (Specific Guidance Notes to Candidates). This may include a variety of activities such as:

- welfare inspections on farms, laboratories or animal breeding establishments
- operation of herd health or quality assurance programmes
- 'welfare science': e.g. epidemiological investigations, ethological studies.
- other diagnostic or husbandry procedures of welfare significance.

Has an outline been submitted on Form E1 and approved by the Board?

YES / NO

10. SUBJECTS OF CASE REPORTS (on a unified theme)

Please confirm below your choice of unified theme and subjects:

YOUR UNIFIED THEME

CASE No. 1

CASE No. 2

11. ATTENDANCE AT RELEVANT SHORT COURSES OVER PAST THREE YEARS

Title of course attended:

Dates and venue:

12. ATTENDANCE AT CONGRESSES, SYMPOSIA, ETC.OVER PAST THREE YEARS

List any attendances at relevant congresses, conferences, meetings, symposia, etc., with dates:

Please send a photocopy of your RCVS CPD Record Cards covering the period of experience being offered.

13. **I HEREBY APPLY FOR FINAL APPROVAL OF EXPERIENCE AND FOR PERMISSION TO SUBMIT AN ENTRY TO THE NEXT DIPLOMA EXAMINATION IN ANIMAL WELFARE SCIENCE, ETHICS AND LAW.**

I certify that the period of experience being offered has not been/is not being offered to meet the requirements of the byelaws for any other RCVS Certificate or Diploma.

14. **CONFIRMATION OF INTENT TO SIT THE EXAMINATION**

I confirm my intention, if approval of experience is granted, of submitting an entry to the next examination.

Signature _____

Date _____

Please enclose a S.A.E. for acknowledgement

The following section should be completed by your Adviser

I confirm that I am acting as this candidate's Adviser

Name _____

Signature _____

Date _____

RCVS CERTIFICATE AND DIPLOMA IN ANIMAL WELFARE SCIENCE, ETHICS AND LAW

[For Certificate, Diploma holders and Specialists, please refer to the lists published in Section 3 of the RCVS Register of Members]

SUGGESTED LIST OF ACADEMIC ADVISERS (non veterinarians)

It is advisable for a Candidate to approach an Adviser in each of the three areas of animal welfare science, ethics and law. However, where an RCVS Diplomate is acting as a Candidate's Adviser, it is unnecessary for a Candidate to have three Advisers in each of the separate areas of animal welfare science, ethics and law.

It is for the candidate to approach an Adviser to seek their agreement to act and to travel to meet them, if necessary.

NAME	ADDRESS	TELEPHONE/FAX	SUBJECT
Dr Harry Bradshaw	University of Cambridge Veterinary School Maddingley Road Cambridge CB3 OES	TEL: 01223 330885 FAX: 01223 330886	Animal Welfare Science
Prof. Don Broom	University of Cambridge Veterinary School Maddingley Road Cambridge CB3 OES	TEL: 01223 764080	Animal Welfare Science
Dr J Cooper	Animal Science Dept. De Montford University Caythorpe Court Caythorpe Nr. Grantham Lincs NG32 3EP	TEL: 01400 272 275602	Animal Welfare Science
Dr Mike Gentle	Roslin Institute Midlothian	TEL: 0131 527 4200 FAX: 0131 440 2726	Animal Welfare Science

NAME	ADDRESS	TELEPHONE/FAX	SUBJECT
Dr Alison Hanlon	Faculty of Veterinary Medicine University College Dublin Belfield Dublin 4 Ireland	TEL: + 353 1 7166249 FAX: + 353 1 7166253	Animal Welfare Science
Dr Steve Kestin	University of Bristol Dept. of Animal Husbandry Langford House Langford Bristol BS40 5DU	TEL: 0117 928 9313	Animal Welfare Science <u>Particular interest</u> <i>Broilers, Fish</i> <u>and Wild Animal Welfare</u>
Dr Jeremy Marchant	De Montford University Caythorpe Court Caythorpe Nr. Grantham Lincs NG32 3EP	TEL: 01400 272521	Animal Welfare Science
Dr Michael Mendl	University of Bristol Langford House Langford Bristol BS40 5DU	TEL: 0117 928 7679	Animal Welfare Science <u>will only be able to advise one Dip. cand. at a time</u>
Dr Daniel Mills	School of Agriculture and Horticulture Caythorpe Court Caythorpe Grantham Lincs NG32 3EP	TEL: 01400 275629	Animal Welfare Science
Dr Richard D Murray	Dept. of Vet. Clin. Science & Animal Husbandry University of Liverpool Leahurst Neston South Wirral L64 7TE	TEL: 0151 794 6056 FAX: 0151 794 6065	Animal Welfare Science

NAME	ADDRESS	TEL:	SUBJECT
Professor Christine Nicol	University of Bristol Dept. of Animal Husbandry Langford House Langford Bristol BS40 5DU	TEL: 0117 928 9473	Animal Welfare Science <u>will only advise one Dip. cand. at a time</u>
Dr Natalie Waran	Institute of Ecology & Res. Man. University of Edinburgh School of Agriculture Bldg. West Mains Road Edinburgh EH9 3JG	TEL: 0131 667 1041 FAX: 0131 667 2601	Animal Welfare Science
Dr James Kirkwood	UFAW & HSA The Old School Brewhouse Hill Wheathampstead St. Albans Hertfordshire AL4 8AN	TEL: 01582 831818	Animal Welfare Science & Ethics

NAME	ADDRESS	TELEPHONE/FAX	SPECIALTY
Dr R Ashcroft	Imperial College School of Medicine Dept. Primary Health Care & Gen. practice Norfolk Place London NW2 1PG	TEL: 020 7 594 3369 e-mail: r.ashcroft@ic.ac.uk	Ethics
Dr Heather Draper	Dept. of Biomedical Science & Ethics The Medical School University of Birmingham Edgbaston Birmingham B15 2TT	TEL: 0121 414 3616	Ethics
Dr Jennifer Jackson	University of Leeds Dept. of Philosophy Leeds LS2 9JT	TEL: 0113 233 3280 FAX: 0113 233 3260 e-mail: J.C.JACKSON@LEEDS.AC. UK	Ethics
Dr David Lamb	294 Leigh Road Chandlers Ford Hants SO5 3AU	TEL: 01703 269 687	Ethics
The Reverend Giles Legood	The Royal Veterinary College Royal College Street Camden Town London NW1 OUT	TEL: 020 7 468 5000	Ethics
Prof. Roy McClelland	Dept. of Mental Health The Whitlea Medical Building 97 Lisburn Road Belfast BT9 7BL	TEL: 01232 245133	Ethics
Dr Kate Rawls	Lancaster University Furness College Lancaster LA1 4YG	TEL: 01524 65201 Ext. 2500	Ethics

NAME	ADDRESS	TELEPHONE/FAX	SUBJECT
Rev. Bryan Vernon	University of Newcastle Dept. of Primary Care Medical School NE2 4HH	TEL: 0191 222 8954	Ethics
Dr Marie Fox	Dept. Law University of Manchester Oxford Road Manchester M13 9PL	TEL: 0161 275 3570 FAX: 0161 275 3579 email: Marie.Fox@man.ac.uk	LAW <u>Will advise not more than 2 Dip. Cands at one time</u>
Dr Mike Radford	School of Law Taylor Building University of Aberdeen Old Aberdeen AB24 3UB	TEL: Direct line: 01224 272416 email: m.radford@abdn.ac.uk	LAW

November 2004

ROYAL COLLEGE OF VETERINARY SURGEONS
DIPLOMA EXAMINATION IN ANIMAL WELFARE SCIENCE, ETHICS AND LAW

MONDAY 6 JULY 2009

PAPER I

General

(Total 3 hours)

PAPER 1 CONTAINS TWO SECTIONS A and B

(Suggestions on the way in which the time available should be allocated to each Section are made below).

Illegible handwriting or failure to answer the question in the form requested may result in examiners being unable to award marks for information which candidates intended to convey.

If insufficient time is available to answer a question fully, it will be acceptable to complete in note form.

SECTION A

(1½ hours)

**ALL EIGHT questions MUST be answered;
approximately 1½ hours should be allowed for this Section.**

1. What are the major factors to take into consideration when reviewing a method of slaughter for humaneness?
2. What are the major factors to consider when proposing a measure for farm assurance?
3. What measures are required to protect the welfare of horses competing in international competitive sport e.g. (Federation Equestre Internationale - FEI)?
4. **Define** stereotypical behaviour. **Briefly describe** one stereotypy commonly observed in **each** of the following species: pigs, horses and elephants.
5. What are the major changes to the minimum standards for the protection of laying hens in the European Union which were introduced by the 1999 Directive?
6. What are the major factors affecting the welfare of farmed fish such as salmon or trout?

P.T.O. for Questions 7 – 8

7. **List** the main **advantages and disadvantages** of using activation of the sympathetic nervous system as a measure of poor welfare state. **Briefly state** how you might reconcile these.

8. What legislative and administrative measures are currently in place to protect the welfare of animals kept in zoological collections in the United Kingdom?

P.T.O. for Section B

ROYAL COLLEGE OF VETERINARY SURGEONS
DIPLOMA EXAMINATION IN ANIMAL WELFARE SCIENCE,
ETHICS AND LAW

MONDAY 6 JULY 2009

PAPER 1
SECTION B
(1½ hours)

THREE of the following SIX questions must be answered;
approximately 1½ hours should be allowed i.e. 30 minutes per question.

9. **Design** an experiment to test the hypothesis that laying hens with keel fractures consciously experience pain. **Identify** the principal argument(s) there might be to your conclusion.

10. **Discuss** how measurements made for farm assurance can be or have been validated.

11. **Discuss THREE** ethical issues raised by the Animal Welfare Act 2006 giving the ethical principles involved and how compliance might be measured.

12. **Discuss** why special consideration should be given to primates in research.

13. **Describe** the principal provisions of the Animal Welfare Act 2006, with an emphasis on the ways in which its provisions are similar to, and different from, those of the Protection of Animals Acts, and **discuss** the extent to which the relevant legislation differs in the constituent parts of the United Kingdom.

14. Explain the difference in the nature of an appeal and a judicial review. Give **ONE** example for **each**.

—————

ROYAL COLLEGE OF VETERINARY SURGEONS

DIPLOMA EXAMINATION IN ANIMAL WELFARE SCIENCE, ETHICS AND LAW

MONDAY 6 JULY 2009

PAPER II

(Total 3 hours)

PAPER II CONTAINS A CHOICE OF ONE OF SIX QUESTIONS

You are required to write an essay on **ONE** of the following topics. You will be marked on the basis of your ability to structure and analyse your argument from first principles of animal welfare science, ethics and law, and to illustrate your structured argument with evidence from published work and practical experience. These principles and this evidence should be used to justify your conclusions.

Illegible handwriting or failure to answer the question in the form requested may result in examiners being unable to award marks for information which candidates intended to convey.

1. A Duty of Care.
 2. World Trade, The Market and Food Animal Welfare.
 3. Animal Welfare Assessment.
 4. Ethics, Religion, Culture and Animal Welfare.
 5. Ethical Issues in Veterinary Practice.
 6. The controlled hunting of charismatic megafauna by trophy tourists in Africa.
-