

Cloning is dealt with in terms of the technical background and its potential impact on animal production, cloning of children, and then, with an eye to the future, the use of embryonic stem cells and other cells for therapeutic purposes in humans (eg organ generation *in vitro* obviating the need for immunosuppression). The next chapter on euthanasia gives the case for and against, as well as dealing with the difficult issues of prolonging dying (and life), resuscitation, permanent (or should it be persistent) vegetative states, defective brain stem function, withholding and withdrawal of treatment, and conjoined twins. This chapter is unique in that three case studies are appended. The final chapter covers the use of animals in research and gives some of the relevant philosophical background as well as a breakdown of how animals are used (this is somewhat out of date and was potentially misleading; eg cosmetic testing was banned in the UK in 1999). A useful addition to the table given on medical milestones reached as a result of animal research could easily have included freezing of semen, *in vitro* fertilisation and embryo transfer, to link in with earlier chapters. I also felt that the summary dismissal of self-awareness in animals was ignoring the body of evidence that has now accumulated on this topic over the past 10 years or so; but, again, the chapter sets the scene well for debate.

In summary, this is a textbook geared to a particular course at Exeter, but is none the worse for that. It is obviously limited in what it covers but it must be a fascinating course for the students and it is easy to understand the frustration of the teachers (and students) in not being able to find such reading material easily. It may have been more helpful if more case studies and ethical questions on which to focus had been given at the end of each chapter to help those teachers who are perhaps less used to teaching in this area as the authors. But despite these criticisms it is a book that morally serious scientists should dip into in order to help them engage in the scientific and ethical debate, which is becoming more commonplace in laboratories as advances in biotechnology impact on ourselves (as patients and scientists) as well as on the environment and public safety.

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### ***A Manual of Lambing Techniques***

A C Winter and C W Hill (2003). The Crowood Press, Crowood Lane, Ramsbury, Wiltshire SN8 2HR, UK. 96 pp. Hardback (ISBN 1 86126 574 3). Price £14.99.

This updated version of the authors' manual, first published in 1998, is aimed at providing practical information to undergraduate students and those undertaking a lambing assistant position for the first time. While many sheep farmers may consider themselves too skilled and experienced to read such a manual, their confidence, not to mention arrogance, is not supported in a sector when perinatal ewe and lamb deaths have not declined over the past four decades. This is a particular welfare concern in an industry where ever-reducing inputs and increasing flock size are implemented to reduce costs in an attempt to maintain profitability.

The 20 chapters cover basic lambing equipment, abortion, prolapses, malpresentations and malpostures, and conditions of the newborn lamb. The line diagrams add clarity to the obstetrical manipulations but colour plates would have been helpful, especially when illustrating the typical appearance of the allanto-chorion and meconium staining of newborn lambs. However, such photographs would have increased the cost of the manual from its present excellent value.

The authors clearly state that “if in doubt, stop or leave well alone and seek the help of someone with more experience, usually your veterinary surgeon”. Whilst politically difficult, some indication of veterinary fees would have been welcome in the text because recently published studies have indicated that farmers are five times more likely to shoot a ewe presenting with dystocia than to request veterinary assistance. What would the authors recommend if the cost of veterinary attention/surgery was greater than the financial value of the sheep? More discussion of welfare considerations and moral issues would also have been very welcome from such experienced authors. However, such debate has been avoided by the veterinary profession at large for the past 20 years and it would prove extremely difficult to counter such apathy in a textbook dedicated to practical instruction.

It proves very difficult to strike the correct balance between providing detailed instructions to allow clients to correct dystocia and related conditions, and straying onto subjects which clients should not undertake. In this respect, replacement of vaginal/uterine prolapse must be deemed an act of veterinary surgery. This is an aspect of veterinary work that has increased in this reviewer’s daily work since the adoption of extradural anaesthesia. A series of photographs showing correction of a vaginal prolapse in the standing ewe simply by blocking tenesmus after extradural injection would have emphasised veterinary expertise to an increasingly sceptical farming audience.

The authors have succeeded in producing the essential basic information on ovine obstetrics and related problems in a very practical format which will be readily understood and appreciated by shepherds and students. The book is very affordable and provides the essential introductory information which can be further developed in practical sessions organised by veterinary practitioners. The authors have done the hard work; it is now up to veterinary practitioners to develop the concepts and concerns detailed in this book in their practices. This book should be left in the practice waiting room for perusal when farmers visit the practice with a stock held for sale. It is especially recommended to veterinary surgeons who have clients entering the sheep sector of the industry.

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***Wild Health: How animals keep themselves well and what we can learn from them***

C Engel (2002). Published by Weidenfeld and Nicolson, Orion House, 5 Upper Saint Martin’s Lane, London, UK. 276 pp. Hardback (ISBN 0 297 64684 2); Price £20.00. Paperback (ISBN 0 753816768); Price £8.99.

It has long been held that most wild animals live healthy lives while modern man and his domesticated livestock are often plagued with disease and degenerative conditions. Of course, wild animals which become sick, injured or infirm are likely to be quickly killed and consumed by predators and scavengers. Only those larger ones at the top of food chains are likely to survive for any length of time. Diseased small animals (or their remains) are not often found. Wild animals are usually alive and healthy (although often with some parasite load) or else dead and eaten.

Cindy Engel discusses in the early parts of her book *Wild Health* the whole concept of health and disease. She clearly distinguishes between infection and illness (showing signs/symptoms of disease): many animals become infected with disease organisms but, through a whole battery of protective mechanisms and, without showing outward signs of illness, either throw off the infection or fight it to a standstill. Some become ill but finally control or eliminate the infection but others, of course, may succumb and die.