

stimulate further learning and discussion” and stresses the need for good planning, training and practical exercises to equip responders for the field. In this context, the training section is an excellent resource. The chapters on small and large animal first aid, triage, humane euthanasia and carcass disposal were particularly informative and well written. The chapters on zoonoses and zoonotic diseases seem clumsy due to the inclusion of a wide range of disparate diseases that might potentially be considered as potential weapons of mass destruction, which seems to result in a large amount of information lacking any cohesive direction. Chapters on hazardous materials, personal protective equipment and decontamination provide much useful information, but also have an emphasis on the present obsession with weapons of mass destruction which will perhaps be of greater value to military than civilian personnel.

Section 2 — ‘Planning’ is perhaps the most USA-centric. The aftermath of Hurricane Katrina has resulted in a complete revamping of the US disaster management system, and legislative change which requires the inclusion of animals in disaster planning. The new system is described in detail — eg chapter 2.6 ‘Federal response to veterinary disasters’, question 28 — ‘describe what the acronyms DMAT, DMORT, NMRT and NVRT stand for’ — clearly has little relevance to anyone outside the USA. However, the approach to disaster planning, from federal and state level to communities, right down to individual homes or businesses, such as veterinary practices and farms, contains much common-sense and practical advice and is well worth reading.

Section 3 — ‘Preparation’ remains at the more personal level on how to prepare family, farm or veterinary practice for a disaster, and also covers what to do in the immediate aftermath of a disaster. The human-animal bond and the importance of animals in disasters are given brief consideration here. Subjects covered vary from a discussion on hazard mitigation for the most commonly encountered disasters, to questions such as ‘what can I do about my monthly bank loan payments?’ and ‘should I seek a disaster loan?’ On the whole, this section seems much more basic than the rest of the book, and some of the more common-sense questions seem even out of place. This section also contains a section on the ethical dilemmas of disaster response, starting from the basic: ‘why spend (waste) resources on animals when it could be spent to the benefit of humans?’. This section is a worthwhile read, but presents more of a personal view than an attempt to find a sustainable ethical basis for response to animals in disasters. The chapter is titled ‘Noah’s Burden: a prolegomenon (cf preface) to the ethics of veterinary disaster response’ and, as such, achieves its end, but I feel that perhaps this is an opportunity lost.

Section 4 — ‘Recovery’ includes a useful section on ‘care for the caregiver’ which discusses the psychological and emotional needs of responders after the response — a brief overview but an important and often neglected subject. The rest of this section appears to contain a lot of repetition of subjects covered in section 3.

In summary, this book must be recommended reading to anyone involved in animals in disasters, whether as a veterinarian, volunteer responder or professional disaster planner and manager. For those within the USA, I am sure it will become a required standard text; however, there is plenty to interest others from around the world. As the authors freely declare, this book is too broad in scope to be a definitive text on any one subject, but serves as a useful ready reference and points to sources for further detailed study. The question and answer format does not endear itself to this reader, and makes information difficult to access due to lack of detailed listings of chapter contents. Despite this drawback, the quality of the subject matter shines through.

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Veterinary Disaster Medicine: Working Animals

WE Wingfield, SL Nash, SB Palmer and JJ Upp (2009). Published by Wiley-Blackwell, 2121 State Avenue, Ames, Iowa 50014-8300, USA. 344 pp Paperback (ISBN 978-0-8138-1017-1). Price US\$69.99.

Veterinary Disaster Medicine: Working Animals is an A3-size ring-bound, soft-backed book of around 300 pages, and so is a size which would be feasible to carry in a field setting. The authors’ declared purpose in writing this book is to provide a ready resource for anyone assisting animals that become victims of a disaster — be they veterinarian or veterinary technician, search-and-rescue personnel or members of emergency medical services present to deal with the human victims. Therefore, although the person assisting the working animal may be a professional with knowledge of first aid, they may not be familiar with the species with which they are faced. The scope of this book is restricted to working dogs and horses, with a few references to other species that disaster responders may encounter.

This book does not follow the same question and answer format as *Veterinary Disaster Response* following a standard format of numbered headings, but does suffer from the same lack of a listing of numbered headings and subject matter at the beginning of each chapter, making accessing information cumbersome.

The ten chapters in this book cover first aid for working dogs and horses, triage and euthanasia, and also specific chapters on bomb blasts, weapons of mass destruction, chemical and radiological events, and a chapter on selected animal pathogens. There is an emergency response contacts directory at the end of the book.

The first-aid chapters contain much of the same information, and are of the same high quality, including many of the same pictures and illustrations, as the chapters in *Veterinary Disaster Response*. Being restricted to only two species, this book is able to include more detail, including practical field restraints, and dosages of drugs for chemical restraint and non-steroidal anti-inflammatories. The chapters on triage and euthanasia again contain much the same information as the larger volume, including the same tables.

The chapters on bomb blasts, chemical injury and radiological events are aimed strongly at military working animals in war zones. The chapter on biological agents as weapons of mass destruction seems to be rather theoretical and unlikely to be of use to anyone in a field setting. The chapter on selected pathogens concentrates mostly on pathogens listed as foreign animal diseases (FADs) by the US government, and therefore require precautions to avoid their introduction into the USA. This is obviously of concern if working animals are to be brought back into the USA after working on disasters elsewhere in the world. However, this rather exhaustive list, in alphabetical order and with no systematic approach to clinical signs or differential diagnosis, does not seem to be particularly useful in a field guide.

In summary, the first-aid, triage and euthanasia sections in this book are a useful field guide for anyone who may have to render first aid for working horses and dogs in a disaster setting. The rest of the book has a more specialised appeal to those involved with working animals in a military setting.

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Technical Large Animal Emergency Rescue

R Gimenez, T Gimenez and KA May (2008). Published by Wiley-Blackwell, 2121 State Avenue, Ames, Iowa 50014-8300, USA. 432 pp Hardback (ISBN-13-978-0-8138-1988-3). Price \$US124.99.

Natural and man-made disasters can affect domesticated animals in many ways. The scale of the problems can vary from the small: the road accident involving a single horse, dog, cat or sizeable wild mammal, the cow bogged-down in marshy ground — through the smallish: the lorry load of animals in a road smash, vehicle and farm fires — to the large: the effects of hurricanes, widespread flooding, forest fires, lengthy droughts, extensive outbreaks of highly infectious disease, bioterrorism, industrial and nuclear accidents etc.

There have been moves in many countries, especially in the USA since the 1970s, by national and local governmental and voluntary organisations, including veterinary and humane (animal welfare) groups, to work out strategic policies and practical means for coping with these various small and large disasters.

One of the concerns that has surfaced, is that the first responders to an incident, ie fire and rescue services, police, animal welfare society personnel and concerned members of the general public are sometimes (some would say often) inexperienced in the restraint and handling of injured/frightened and potentially dangerous (to humans and others) large domesticated animals. A number of training courses have been started and a number of instructional booklets have been produced — often very useful and usually associated with training initiatives but generally rather limited in coverage and circulated in a somewhat restricted manner.

The text under review, *Technical Large Animal Emergency Rescue* which is largely written by and, presumably, edited

by Rebecca and Tomas Gimenez (a father and daughter veterinarian team) and by Kimberly May (Assistant Director of Professional and Public Affairs, American Veterinary Medical Association) has, seemingly, been produced to help overcome the problem of the naïve and frequently untrained first-responders arriving at the scene of a disaster and initially making things worse.

It is not a training manual, but a substantial textbook which contains masses of background and practical information upon which training courses can be based. The volume arrives at an opportune time for the UK where, over the last few years, an increasing interest has been taken in the subject of animal rescue. It seems that the national fire and rescue service — the group, after perhaps the police, most likely to be initially contacted and often inevitably involved — were the first to realise that there was a problem. It has been suggested that the UK fire service rescues some 10,000 animals a year (approximately 10% of which are large animal incidents). In October 2008, the Chief Fire Officers' Association, in loose co-operation with the British Equine Veterinary Association which, in itself, has been interested in horse rescues for some time and believes that there may be some 4,000 to 5,000 incidents a year, with the RSPCA with its so-called 'rope rescue teams' in each of its 10 regions and now with the British Cattle Veterinary Association, has formed the Animal Rescue Practitioners' Forum to establish a standard set of techniques in animal rescue.* This initiative will inevitably affect the training courses set up by some county fire and rescue services and now by one or two university veterinary schools. The textbook will be most useful to all concerned with the improvement of animal rescue services and especially those involved in developing and running training courses.

The book itself contains 22 chapters — 13 of which are written by Rebecca Gimenez alone, two by Tomas Gimenez and two jointly between them. The remaining five are the responsibility of the other nine members of the writing team. The subjects of the chapters include (amongst other things): a historical overview of the development of the subject; large animal behaviour in disaster situations; animal restraint and handling; the catching of loose animals; fires; the rescue of animals from water and unstable ground; rope and lifting techniques; the role of the veterinary surgeon; the value of sedation and anaesthesia; field euthanasia; the place of local and regional planning; the importance of rescue scene management. There are four short technical appendices, a four-page glossary, a references section containing some 280 items and a substantial and most useful 29-page (three columns to a page) index. One helpful feature, included at the end of most of the chapters, is a list of the acronyms and abbreviations used in that chapter — this feature should, perhaps, have been fully, ie not selectively, incorporated into the glossary.

There is some mention of handling wild animals and of transported zoo animals escaping and having to be rounded-up but, somewhat surprisingly, little or no coverage of how to deal with stranded marine mammals.