

Assessment and training for agricultural emergencies

Terry Thomas examines agricultural emergency training

Abstract

Training for agricultural emergencies in Australia has been conducted over a long period, pioneered by the animal health sector. AUSVETPLAN, the agreed manual for strategies and response to emergency animal diseases (EAD) was developed in the early 1980's. In 1999 competency standards for EAD were developed and implemented. Plant and fish industries are in the process of developing strategy manuals and training material. The EAD competency standards are being revised, expanded, updated and are to be accredited nationally. Significant training activities, including exercises, are being conducted.

Why train for agricultural emergencies?

Australia has been fortunate that it has not had outbreaks of emergency animal diseases with severe economic and social consequences. It experienced outbreaks of Rabies and foot-and-mouth Disease in the 1800's but they were swiftly eradicated—a credit to the authorities of the time. In the past ten years we have experienced relatively minor outbreaks of Newcastle disease, Anthrax and Avian Influenza. Further outbreaks of Newcastle disease and Anthrax are likely. In the former case the genetic precursors to virulent virus are widespread in Australia and can mutate to the virulent form. In the case of Anthrax, soil contamination has occurred over decades and the agent can persist for long periods. It requires a combination of environmental factors for anthrax to reappear.

Other emergency diseases recently appearing in Australia have been minor. Australia has never experienced crippling outbreaks in the style of for example:

- Foot-and-Mouth Disease (FMD) in Britain in the 1960's and 2001;
- Bovine Spongiform Encephalopathy (BSE—mad cow disease) in Britain;
- Avian Influenza with a human dimension, as recently occurred in SE Asia;
- Foot-and-mouth Disease in South American countries.

Australia does have a fine record of eradicating economically important animal diseases and preventing their entry. Pleuropneumonia of cattle and Classical Swine Fever were eradicated in the 50's and 60's. Cattle Tuberculosis and Brucellosis were eradicated in the 70's and 80's (Lehane, 1996). The eradication of these diseases has proven difficult or impossible in several developed countries.

The world community that trades in agricultural commodities treats Australia as a single entity. In the event of an outbreak of an economically important disease such as FMD or BSE, no State or Territory would be allowed to export even if it were initially seen to be unaffected. Proof of freedom can be a lengthy and involved process. The discovery of a significant EAD in Australia will profoundly reduce animal and product exports with consequent effects on the balance of trade, the value of the dollar and living standards.

Responsibility for the control of agricultural emergencies resides in the State and Territory governments. No jurisdiction has sufficient resources to handle large emergencies and this implies co-operation between jurisdictions. As there are very small numbers of full-time agricultural emergency preparedness workers in each jurisdiction, an emergency animal response relies on taking government staff and non-government personnel from their usual employment.

Co-operation in the response to major animal diseases is covered by a national agreement (Emergency Animal Disease Response Agreement, Animal Health Australia, 2002) whereby parties have undertaken to share the cost of disease outbreaks and to have trained personnel available.

The emergency animal disease training program

The National Emergency Animal Disease Training Program was introduced in 1999 by Animal Health Australia—a non-profit company whose members are the Australian Government, State and Territory Governments and the livestock industries. It was developed to provide education and training to producers, veterinarians and government personnel.

This training system includes:

- standards describing the application of skills and knowledge required for Emergency Animal Disease Preparedness (EADP),

- an assessment method to identify and accredit those who have the skills and knowledge required to function in an EAD response, and
- a system to develop EADP-specific skills and knowledge.

The program was designed to train participants in the key roles of the 90 positions described in AUSVETPLAN, the agreed manual for an EAD response.

The skills and knowledge for key positions were identified and 25 units written for five functional areas—emergency management, field operations, veterinary investigations, managing data and information, and communication and public relations (see Figure 1). The units developed in this program were not intended for accreditation by the Australian National Training Authority. Assessors were identified and trained for each jurisdiction. Since 1999, over 5,000 competency units have been awarded to over 2,000 personnel.

Exercise Minotaur was conducted in 2002 as a means of assessing Australia's EAD preparedness as a consequence of the foot-and-mouth Disease outbreak in Britain in 2001. A number of recommendations resulted including that for a Rapid Response Team (RRT) of members from all jurisdictions who were to be trained and available at short notice to establish disease control centres anywhere in Australia, but particularly in NT, TAS and SA, the jurisdictions with the least animal health resources.

The RRT was established in 2003 and has since conducted three major training activities, including two five-day exercises in NT and TAS in 2004. RRT training has been longer and more intense than that previously conducted in this country and has significantly improved Australia's EAD response capability.

Figure 1. Current EADP standards framework

Functional areas	Levels of competence
<ul style="list-style-type: none"> • Emergency management • Field operations • Veterinary investigations 	<p>E (Expert): Has specialist and/or management skills and knowledge to perform tasks to specified standard</p>
<ul style="list-style-type: none"> • Managing data and information • Communication and public relations 	<p>C (Competent): Has skills and knowledge to perform tasks to a specified standard</p>
	<p>A (Aware): Has a basic understanding of concepts and practices</p>

The Australian Veterinary Reserve will be established in 2004 to train 100 private veterinary practitioners for surveillance duties during an EAD outbreak. Surveillance to rapidly establish the distribution of a disease is vital when a disease discovery is made. Veterinary practitioners may constitute the main surveillance effort in an EAD. Reasonably large numbers may be required and these should be trained, assessed as competent and available for rapid deployment.

The future

As a general trend, primary industry departments are developing emergency management units with generically trained staff who will be augmented by specialist staff in outbreaks—the primary skills being those of emergency management. Responses to animal, plant and fish emergencies will in future be handled similarly, with common nomenclature, similar documentation and generically trained personnel making full use of emergency management resources. The EAD training is being re-written in a generic form and will be nationally accredited. New competency units have been added to the existing training framework to enhance the skills and knowledge of those performing agricultural emergency response roles. A number of training activities are planned for the coming year

including a major exercise in conjunction with health authorities involving a zoonosis—an animal disease affecting humans.

References

- Animal Health Australia, 2001, *Guide to EADP Competency Standards*, National Learning Institute
- Animal Health Australia, 2002, Government and Livestock Industry Cost Sharing Deed in Respect of Emergency Animal Disease Responses
- R. Lehane, 1996. *Beating the Odds in a Big Country: The Eradication of Bovine Brucellosis and Tuberculosis in Australia*, CSIRO Publishing

Author

Terry Thomas has administered the Emergency Animal Disease (EAD) Training and Assessment Program for Animal Health Australia since its inception in 1999. For over ten years he served as a Principal Veterinarian in the (now) Dept of Primary Industries, Victoria in emergency disease management and training where he assisted in developing the EAD competency standards. He holds a bachelor degree in Veterinary Science and a Diploma of Agriculture. He served in the Army Reserve, Royal Australian Infantry Corps, retiring as Lieutenant Colonel in 1997.