



Opinion on Contingency Planning for Farm Animal Welfare in Disasters and Emergencies

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FAWC Opinions

FAWC Opinions are short reports to Government¹ on contemporary topics relating to farm animal welfare. They are based on evidence and consultation with interested parties. They may highlight particular concerns and indicate issues for further consideration.

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Osteoporosis and bone fractures in laying hens, 2010

The welfare of the dairy cow, 2009

Policy instruments for protecting and improving farm animal welfare, 2008

The welfare of farmed gamebirds, 2008

Enriched cages for laying hens, 2007

Beak trimming of laying hens, 2007

¹ Where we refer to “Government” we are addressing ourselves to the Department for Environment, Food and Rural Affairs in England, the Scottish Government and the Welsh Government, and other responsible Government Departments and Agencies.

Opinion on Contingency Planning for Farm Animal Welfare in Disasters and Emergencies

Scope

1. This Opinion examines the potential impacts that disasters and emergencies can have on farm animal welfare and considers the implications for contingency planning to protect the welfare of farm animals. It covers all potential disaster and emergency scenarios, either natural or resulting from human actions, and applies to all farmed species (including fish) in Great Britain.

2. The aims are to:

- Identify a range of possible disaster and emergency scenarios for which contingency planning for farm animal welfare might be necessary, from farm-based emergencies to large-scale disasters.
- Identify the welfare implications of these scenarios for farm animals.
- Explore strategies for protecting the welfare of farm animals and for mitigating welfare impacts, drawing on examples of best practice.
- Consider how these strategies might best be incorporated into contingency planning, focusing on identifying current gaps and reinforcing weak areas.
- Consider roles and responsibilities of livestock keepers/owners, Government (and its agents) and stakeholders with regard to farm animal welfare in emergencies and disasters.

Background

Extent and nature of the topic covered

3. A disaster is an event that exceeds the local capacity to deal with it. An emergency is an unforeseen or sudden occurrence that demands immediate action. An animal disaster or emergency can be defined as an event or situation which threatens serious harm to animals, their husbandry and care and which requires a timely response.

4. Disasters or emergencies that can result in animal welfare issues are listed below, with the scale of the incident having a significant impact on the extent of the animal welfare consequences. Some case studies are provided in Appendix 1.

Human disease, e.g. pandemic flu; SARS; food poisoning

An epidemic or pandemic poses a great threat to animal welfare as it has the potential to incapacitate a large part of the workforce upon whom farm animals rely for their husbandry.

Animal disease, e.g. Foot-and-Mouth Disease; avian influenza; rabies; anthrax

Outbreaks of animal disease can have various impacts on farm animal welfare, including the direct effects of the disease as well as movement restrictions and killing of large numbers of animals. There are also impacts resulting from potential zoonoses, for example avian influenza, such as quarantine.

Industrial accidents, e.g. the Sea Empress oil spill; the Buncefield fire; Chernobyl; dioxin contamination; the Fukushima nuclear incident

The main impact of an industrial accident on animal welfare is through contamination. Animals will also be affected if authorities prevent keepers from entering affected areas to tend them. There have been many examples of contamination from industrial accidents in the UK but relatively few have affected farm animals. Examples include dioxin contamination (e.g. in Northern Ireland in December 2008) and the Chernobyl nuclear accident in 1986 (some parts of the UK had livestock-related restrictions for 20 years).

Deliberate acts, e.g. terrorist attacks; arson; the release of chemicals, biological pathogens or radioactive material; attacks on IT/computer systems

These will create similar issues to an industrial accident but will be designed for maximum impact.

Severe weather, e.g. persistent freezing temperatures; heavy snow; heat waves; droughts; flooding; storms and gales

Severe weather can lead to problems of access to animals, husbandry, difficulties with movement of stock and the need for animal rescue. Heath or brush fires can be a consequence of hot, dry weather. There can also be injuries or deaths related to damaged housing or thermal stress.

Natural disasters, e.g. volcanic eruption, tornado, landslide, earthquake

The eruption of the Icelandic volcano in 2010 caused a hazard to grazing livestock because of the fluoride content of ash deposits.

Loss of power or technical failure, e.g. loss of electricity, bottled or North Sea gas or petroleum fuel supplies; loss of water supplies; IT failure; generator failure

Technical failures can be caused by other emergencies such as severe weather. Even localised loss of power can have a significant impact upon those who rely on these energy sources for husbandry.

Transport problems, e.g. accidents; strikes; enforced movement restrictions; breakdowns; traffic jams; animals straying onto roads or railway lines

Transporting animals by road, rail, air or sea can create a number of welfare issues. In the event of an accident, animals might be injured or they might escape and stray onto roads or railway lines. If animals cannot be moved, particularly in hot weather, their needs must still be catered for.

Damage to buildings, e.g. fire damage; roof collapse

There are the obvious direct dangers of fire or building collapse to housed farm animals, but there can also be welfare impacts if supplies of feed, bedding or other resources are consumed by fire or otherwise damaged.

5. Although the scale will vary according to the type and extent of the emergency, animal welfare needs will usually arise as a result of one or more of the following:

A direct result of the disaster. For example, in floods, welfare can be impaired through contamination of feed and water, prolonged exposure to water leading to hypothermia and pneumonia, an increase in skin lesions due to softening, contamination of pasture with debris and an increase in infectious diseases.

The way in which the animals are managed. Intensive husbandry systems often rely heavily on the continual input of resources, e.g. food, water, bedding, power for ventilation and frequent inspection. Any disruption to these will have greater consequences due to the large herd or flock size. For example, a common welfare issue for high yielding dairy cows in emergencies is mastitis arising as a consequence of disrupted milking facilities and routines.

The effect on farm or emergency workers. If farm workers are themselves affected by an emergency, they might not be able to care for their animals' needs. The emergency responder's resources might be stretched by caring for human needs with the consequence that animal needs can be marginalised.

The way in which the emergency is managed. The standstill orders during the Foot-and-Mouth Disease outbreaks in 2001 and 2007 caused several welfare issues. Cows that were about to calve could not be moved to calving areas and over-crowding occurred in enterprises that relied upon transporting animals from one unit to another. Animals' needs are closely related to the farmer's. For example, if the latter is unable to sell his animals, then this can have a major impact on his ability to look after his stock. Operation of markets, slaughterhouses and

transport may have a crucial impact on animal welfare and it is important that normal business is resumed as quickly as possible.

6. Contingency planning is *“a mechanism for anticipating and thereby proposing responses to unexpected and unintended events and emergencies”*. It is founded upon the anticipation of possible scenarios, the informed projection of consequences, preparation to mitigate consequences, and post-event reconstruction and restitution. Effective contingency planning has to balance the costs of planning for possible scenarios against the likelihood of those events occurring and the severity of impact. The greater the likelihood and/or impact of a disaster, the more important will be contingency planning.

Welfare concerns and opportunities to protect welfare

7. Animal welfare needs in disasters and emergencies can be broadly categorised as: clean air (and/or water for fish); feed and drinking water; evacuation; shelter, including requirements for evacuated animals; veterinary care (including First Aid) and humane killing.

8. Humane killing can be necessary in the following circumstances: i) immediate emergency response when an animal is in an extreme, non-recoverable situation (e.g. fractured limbs during a road traffic accident); ii) irresolvable interruption to essential resources such as feed and water; iii) failure of environmental management systems; iv) inability to transport animals to normal slaughter (e.g. during an infectious disease outbreak); and v) prevention of disease spread or control of contamination. In several types of emergencies, the need for humane killing can be greatly reduced by appropriate contingency planning.

9. In an emergency, it might not be possible to operate the humane killing methods used under normal circumstances. Animal housing might be partially or completely destroyed, access to the animals and surrounding infrastructure might be severely impaired, the owner might not be present and resources might be limited due to human or other needs. Various considerations apply, including issues associated with carcase disposal.

Number of animals involved, duration and extent of welfare issues

10. Planning for agricultural emergencies is complicated. In 2010, there were over 174,000 livestock holdings out of 222,000 agricultural holdings in the UK². The former are unevenly distributed across England with a particular concentration in the South West.

² Defra: Agriculture in the United Kingdom, 2010

11. Emergencies or disasters can occur suddenly or can build up over several days. Their impact can be immediate, while the effects might last for much longer, even several years. Over the last 10 years, emergencies caused by severe weather have been prevalent in the UK, with an average of around 16 extreme weather events recorded per year between 2004 and 2009³; climate change is likely to increase the number of extreme weather incidents in future years. A number of natural disasters within the UK (for example, the 2007 and 2009 floods, the severe winter of 2009/2010 and the storms of 1987 and 1990) have had a major impact on animal lives and welfare. Animal disease has been the next most common cause of emergencies in the UK. Appendix 2 provides a list of exotic notifiable disease outbreaks and incidents over the last 10 years.

12. On a smaller scale, fires, accidents, trappings, strandings and other lesser emergencies occur regularly, often with serious implications for welfare. For example, Hampshire Fire and Rescue Service attended approximately 350 animal rescues in 2010. Large animal incidents attended between 2006 and 2009 are shown in the table below.

Numbers of large animal incidents attended by Hampshire Fire and Rescue Service

Year	Number of incidents	Examples
2009	84	Cows/horses trapped in ponds, mire, bog, ditches, slurry lagoons; Barn fires, horse-box fires; transportation; Animals on road; and Animals hurt in road accidents.
2008	95	
2007	72	
2006	53	

Legal context

13. The Animal Welfare Act 2006 makes owners and keepers in England and Wales responsible for ensuring that the welfare needs of their animals are met. [Similar legislation exists in Scotland: The Animal Health and Welfare (Scotland) Act 2006.] Section 9 places a duty on the person responsible for an animal to ensure its welfare, and section 4 makes it an offence for a responsible person to cause or allow an animal to suffer if that suffering is unnecessary. This responsibility remains in emergencies or disasters. Under the Act, “a person (is) responsible for an animal whether on a permanent or temporary basis”.

14. The reference to “temporary basis” essentially means that if a keeper is unavailable in an emergency, the obligation passes to the person taking care of the

³ Wiseweather, 2011

animal. A veterinary surgeon, for example, attending an animal in distress in an emergency might have an obligation to kill it humanely, even though the owner is not present to provide consent.

15. Some legislation refers explicitly to contingency planning. For example, Schedule 1 of The Welfare of Farmed Animals (England) Regulations 2007 requires provisions to be made in case of failure of automated or mechanical equipment essential for the health and well-being of animals, such as back-up and alarm systems. [Similar regulations exist in Wales and Scotland: the Welfare of Farmed Animals (Wales) Regulations 2007 and the Welfare of Farmed Animals (Scotland) Regulations 2010, respectively.]

16. Section 18 of the Animal Welfare Act 2006 provides powers for the police to remove animals to a place of safety if they are considered to be in distress in order to alleviate suffering, and section 18(5) provides powers to remove an animal if *“it is likely to suffer if its circumstances do not change”*. Section 19 provides for the power of entry for an authorised inspector for these purposes.

17. Council Regulation (EC) No. 1/2005 on the protection of animals during transport and related operations requires that those applying for authorisation of transporters to carry out journeys of long duration must submit contingency plans in the event of emergencies.

18. The Welfare of Animals (Slaughter or Killing) Regulations 1995 (as amended) and Council Regulation (EC) No. 1099/2009 on the protection of animals at the time of killing (which will come into force on 1 January 2013) include derogated provisions for emergency killing. These enable keepers to take all necessary measures to kill animals which are injured or have a disease associated with severe pain or suffering, and where there is no other practical possibility, as soon as possible.

19. The legal responsibilities of animal keepers during disease or non-disease emergencies are laid out in the Codes of Recommendations for the Welfare of Livestock, and cover fire, flood and disruption of supplies. Statutes provide for animal welfare contingency planning at the level of the animal keeper only.

National and regional considerations

20. The way in which emergency response is co-ordinated in the UK is set out in Appendix 3. In England, Defra is responsible for exotic animal disease control, with separate arrangements in Scotland and Wales, where the relevant governments are responsible. Outbreaks are managed through a hierarchical strategic-tactical-operational structure. Contingency plans⁴ in each territory have framework and operational response components, but deal with the response to exotic animal diseases only. An overarching Great Britain and Northern Ireland Contingency Plan

⁴ <http://www.defra.gov.uk/foodfarm/farmanimal/diseases/control/contingency/exotic.htm>

for Exotic Notifiable Diseases of Animals⁵ was published recently by all UK administrations.

21. Defra's Animal Welfare Team has an unpublished contingency plan which outlines the action to be taken by the Team to ensure animal welfare is protected in the event of a disease outbreak or other national emergency.

22. Defra has also recently created 14 rural and farming network groups throughout England, which feed back the impact of local emergencies, such as flooding, on rural communities, businesses and the food and farming industries.

23. The Cabinet Office has published non-statutory advice⁶ on Emergency Response and Recovery to accompany the Civil Contingencies Act 2004:

“Animal Health [now the Animal Health and Veterinary Laboratories Agency, AHVLA] does not have an operational delivery role over and above its normal regulatory or enforcement responsibilities in incidents or emergencies not involving exotic notifiable animal diseases.”

Nevertheless, AHVLA will provide advice and expert opinion to local (Strategic Coordinating Group (SCG)) response planning when needed.

24. Civil response structures at the local level under the Civil Contingencies Act 2004 are generally based around a generic template⁷ produced by Local Government Regulation (formerly LACORS). The formal position is that local authorities (county councils, unitary authorities and metropolitan authorities) are autonomous in relation to their animal welfare plans. They have the power to enforce and institute proceedings under the Animal Welfare Act 2006, but are not legally obliged to do so. The economic climate may also restrict the development of animal welfare support planning in a non-disease emergency because it is not a (funded) statutory requirement.

25. Some local authorities (e.g. Somerset, Surrey, and Hampshire) have, however, been proactive in relation to animal welfare, with specifically dedicated staff and the production of advisory leaflets for livestock owners on preparing for, and coping with, a disaster.

International considerations

26. Surprisingly, the EU does not have coordinated emergency plans for animal welfare. Since 2008, the Directorate General (DG) for Humanitarian Aid and Civil Protection has been developing a civil disaster response action plan for people and property. DG Agriculture and Rural Development has not addressed the issue specifically. The Commission responds to requests for disaster relief, which so far

⁵ <http://www.defra.gov.uk/publications/files/pb13714-animal-disease-plan-gbni-120228.pdf>

⁶ <http://www.cabinetoffice.gov.uk/media/353478/err-guidance-050410.pdf>

⁷ <http://www.lacors.gov.uk/lacors/ViewDocument.aspx?docID=20317&docType=C>

have come mainly from countries other than Member States, and have not involved animal welfare.

27. Outwith Europe, animal welfare considerations (other than disease control) are also rarely included in contingency planning. The USA, for example, has a multi-jurisdictional contingency planning system for its citizens but not for farm animals; FEMA is its federal emergency management authority. Although companion and working animals were incorporated into contingency planning after Hurricane Katrina in 2006, farm animals remain outwith US emergency contingency laws or planning structures.

Evidence

Extent of contingency planning for farm animal welfare

28. From the evidence collected, it appears that specific contingency plans for farm animal welfare during non-disease emergencies at national or EU level do not exist. Farmers link in to national or regional planning through disease control measures rather than non-disease contingencies. The overall situation appears to be similar in England, Scotland and Wales.

29. From the responses received to our consultation, it appears that the Fire and Rescue Service (FRS) is the only emergency service that has focused specifically on animal welfare, and then only for localised incidents. The police describe their role as being primarily in relation to animal movements and breaches of the peace during animal disease crises. The RSPCA describes its role as responding to emergencies with advice and rescue although it is currently preparing contingency plans for animal welfare in line with the requirements of the Civil Contingencies Act 2004.

30. Each FRS undertakes integrated risk management planning as part of its duties under the Fire Services Act 2004, which provides for them to “*equip themselves for eventualities which may cause harm to ... animals*”. Some have developed dedicated animal rescue plans. FRSs also collaborate for special training. There is a Standard Operating Procedure (SOP) covering individual large animal rescues, e.g. road accidents or entrapment. A parallel response in relation to large scale incidents such as floods or fire is currently under development by some services; this inevitably will involve a more complex multi-agency structure. Lantra offers training courses for the uniformed services and transport providers on dealing with animal-related incidents in a number of circumstances.

31. The farming industry’s contingency planning appears generally to occur at unit level. Some farm assurance schemes, such as AFS Red Tractor, require members to have emergency plans in place on farm and during transport. Plans are based on templates⁸ and comply with the Welfare Codes for each species.

⁸ The emergency plans required by AFS can be found at:

32. The requirements of such schemes are based on planning at the unit level yet such emergency plans can only be fully completed in the context of planning which includes and extends beyond the local level and is integrated into regional and national plans. Engagement of these plans with those of suppliers, utilities and regional and national emergency services is not apparent.

33. In addition, informal local networks may exist; these are effective for minor emergencies. Inclusion of farmers or local networks into a regional or national network to protect animal welfare during a non-disease emergency has not yet been formalised. This could be particularly critical when animals need to be urgently moved to regional bases for their own safety and welfare. Other than the provisions of the Animal Welfare Act 2006, it is not clear as to the legal responsibilities and liabilities of stakeholders, government and rescue services in non-disease, large scale emergencies.

34. Defra has produced a booklet⁹ for farmers on the dangers of farm fires and the plans that should be made to prevent and deal with fire emergencies. In Scotland, farmers are encouraged to have their own contingency plans for bio-security¹⁰ and for winter preparedness¹¹. The Welsh Government has encouraged farmers to draw up contingency plans for their businesses.

35. The potential impact of insurance cover on the level of preparedness for movement and care for animals in an emergency is important. Further work is needed to establish the precise mechanism(s) by which insurance cover could be used to incentivise good practice in relation to contingency planning and preparedness for farms to reduce risk.

Best practice contingency planning

36. Using established principles of contingency planning developed in other contexts, it is possible to define best practice contingency planning for livestock.

37. *Anticipation.* Various measures can be taken before a disaster strikes to reduce the risks for livestock. Hazard-specific measures include raised (standing and lying) areas for cattle in floods and flood-proof feed storage, as well as general measures such as back-up generators, evacuation plans and livestock welfare disposal schemes. Currently a national risk register is sent to local planning authorities for listed risks that apply within their region and plans are developed

http://assurance.redtractor.org.uk/resources/000/553/460/DP.2_Emergency_contact_freshproduce_V2.pdf

⁹ <http://www.defra.gov.uk/publications/2011/04/12/pb9326-farm-fires/>

¹⁰ SAC have produced technical notes, e.g.

<http://www.sac.ac.uk/mainrep/pdfs/infonote85biosecurity.pdf> and

<http://www.sac.ac.uk/mainrep/pdfs/tn581foursbiosecurity.pdf>

¹¹ <http://www.scotland.gov.uk/Topics/Justice/public-safety/ready-scotland/Winter/Prepare/petsandlivestock>

accordingly. This register could include specific risks that apply to livestock, either locally or nationally. A national risk assessment would provide a more realistic estimate of the overall risk to livestock from natural disasters and the required resources to meet these needs. Early warning systems can provide a useful way of alerting farmers to emergencies (Appendix 4).

38. *Preparedness of organisations and individuals.* Emergency personnel must be appropriately trained and qualified. Emergency responders dealing with livestock require animal-specific knowledge and training in how to handle animals appropriately. For example, FRSs run training courses for emergency personnel and veterinarians. Clear roles and responsibilities should be identified for animal and emergency stakeholders. The AHVLA has no responsibility for animals in disasters other than infectious diseases, although in practice at a local level, the agency may well be involved in the management of animals in other emergencies. The development of a resource inventory detailing physical and human resources ranging from possible evacuation grounds to technical rescuers with animal expertise would be invaluable.

39. *Subsidiarity.* Decisions should be taken at the lowest appropriate level, with co-ordination at the highest necessary level. Traditionally, farmers have a reputation for helping each other at the local level during small-scale emergencies. This could be formalised by including a representative of the farming community at all levels of the contingency planning process (ranging from Local Resilience Forums to national level). Making this standard practice for preparedness planning could facilitate response. The National Farmers' Unions could play an important role in this regard.

40. *Direction.* Clarity of purpose comes from a strategic aim and supporting objectives that are agreed, understood and sustained by all involved. Integrating response efforts at different levels is likely to work best if objectives are similar and agreed in advance.

41. *Information.* Dissemination of information is critical to emergency response and recovery. There is a need to communicate clearly to farmers their responsibilities and legal duties in disasters and emergencies. Defra has produced advice¹² for farmers, for example, on coping with severe weather. In addition, the Codes of Recommendations for the Welfare of Livestock include species-specific guidance on contingency planning. The information is relevant and practical although awareness amongst farmers of these documents may be limited.

42. *Integration.* Animal welfare considerations should be integrated at all levels of contingency planning. Contingency plans should be designed to be easily scaled up.

¹² <http://www.defra.gov.uk/food-farm/animals/welfare/weather/>

Horizontal integration requires collaboration between different agencies and stakeholders.

43. *Cooperation.* Flexibility and effectiveness depends on positive engagement and information sharing between all agencies and at all levels, including the AHVLA. This is not easily achieved unless addressed prior to the emergency. In practice this entails training animal responders in the command and control system. It is also facilitated if relevant agencies such as the fire services and the RSPCA for example have Memoranda of Understanding and operational agreements. Including relevant agencies in emergency simulation(s) will improve cooperation in the field.

44. *Continuity.* Emergency response and recovery should be part of the existing functions of organisations and ways of working. Most animal needs in many disasters can be met by existing resources of the animal-keeping community if integrated with emergency management bodies. Creating an inventory of capabilities and resources helps identify gaps in provision. An inventory might include feed, water and transport providers, specialised expertise in technical rescue and available equipment in relation to location. It should include the capacity and local range of the resource as well as a contact person/telephone number, and should be kept at a location accessible to the local and regional network.

The role of stakeholders

45. Various stakeholders play an important role in the management of animal welfare in emergencies:

Farming community. As damage usually occurs within the first 72 hours of a disaster — when the demand on emergency services is usually extremely high — the most effective initial responses are on farm. Farmers and the farming community have the most important role in preventing welfare problems. Farm assurance schemes can provide support in preparing contingency plans and play an important role in their implementation.

Voluntary organisations. The RSPCA has a number of staff trained to respond in emergencies. In the USA, animal welfare organisations now commonly train volunteer teams to comply with national emergency worker requirements and are authorised to work in emergencies in activities such as animal shelter management. Animal welfare organisations can play an important role in developing contingency plans, as well as providing training material and training volunteer support forces.

Emergency services. Police and FRSs have an important role to play. Although there is a large pool of expertise, it is likely that in cases of larger-scale emergencies, their resources would be prioritised to attend human, rather than animal, needs.

Including these services in contingency planning and capability building programmes could minimise potential conflicts.

Private veterinarians. The veterinary profession should be closely involved in contingency planning. Training in dealing with disasters and emergencies, including First Aid and euthanasia, should be part of the undergraduate curriculum. There is also a need for short-course training for veterinarians, who could then be part of an emergency response team, provided they had access to appropriate equipment and transport.

Other government agencies. Other government agencies are likely to be needed where there is a failure to respond adequately to animals' needs. Capacity exists, for example, within the AHVLA and the Official Veterinarian¹³ network, to organise and manage evacuation and emergency shelter as well as providing First Aid. Training and capacity building in emergency management as well as development of SOPs in conjunction with other emergency management agencies could increase this valuable capacity.

Critical issues

46. The welfare of farm animals is at risk during disasters and emergencies. Confinement means that farm animals rarely have the option to escape danger. Dependence upon humans for food and water, shelter and other interventions, ensures that when these are disrupted, animal harm may result. Unlike companion animals, farm animals rarely accompany humans to safety. Although they are often critical to the rural economy, they are usually invisible in disaster planning and management.

47. While formal structures already exist to plan for and manage disease outbreaks, contingency plans specifically for farm animal welfare during non-disease emergencies do not currently exist at national or EU level.

Ethical context

48. There is a moral duty to protect the welfare of farm animals and prevent unnecessary suffering, including in disasters and emergencies.

49. Human welfare is prioritised in disasters and emergencies, but is inextricably linked to animal welfare; it may be compromised if animal welfare is not protected. In an emergency, people may be reluctant to leave their animals and thus may endanger their own lives, livelihoods and food security.

¹³ Official Veterinarian is the term used to describe veterinary surgeons who perform work on behalf of an EU member state.

50. The needs of animals are defined legally in Great Britain but do not correspond exactly with the Five Freedoms nor reflect the new concept of a life worth living. Legislation provides a useful framework for contingency planning. For emergency scenarios, the primary focus should be on providing for the statutory needs of an animal in a disaster or emergency.

51. Farm animals' dependence on human activity for their husbandry makes them especially vulnerable in disasters and emergencies; contingency planning specific to each farm is a moral imperative.

Conclusions

52. Farm animals are particularly vulnerable in disasters and emergencies.

53. The risk of extreme weather combined with the trend towards intensification and scale of livestock production present particular hazards for farm animal welfare.

54. Although there are formal structures to manage disease outbreaks, contingency plans specifically for farm animal welfare during non-disease emergencies do not currently exist at national or EU level.

55. National/regional civil and animal health response plans have not been designed to cope with the threats to farm animal welfare posed by non-disease crises. This omission is a source of concern. The absence of an EU framework is a further problem.

56. Protection of farm animal welfare during emergencies and disasters relies on the individual animal keeper, who lacks formal support networks.

57. Risk reduction measures to protect farm animal welfare in the event of non-disease emergency or disaster are limited at all levels.

Recommendations

58. All farm animal keepers should be cognisant of their responsibilities and legal duties towards animals in their care in case of disaster or emergency. Keepers should make their own contingency plans. The Codes of Recommendations for the Welfare of Livestock and Farm Assurance schemes should be revised accordingly.

59. Planning at all levels for disasters and emergencies should take into account potential hazards to farm animal welfare. National/regional civil and animal health contingency plans should explicitly address protection of farm animal welfare and establish formal responsibilities for welfare during non-disease emergencies. In particular, responsibility for farm animal welfare in a non-disease emergency should be clarified as it is in disease emergencies.

60. The national risk register should include consideration of specific hazards and risks to farm animal welfare.

61. Contingency plans for farm animal welfare should be proportionate to the risk and should include an inventory of capabilities and resources, such as veterinary expertise, First Aid, transport and housing.

62. Partnerships with clearly defined roles and responsibilities should be forged between non-governmental organisations and others to provide assistance in disasters and emergencies.

63. Local farm animal emergency networks should be developed that involve relevant stakeholders and services in contingency planning and emergency response. National Farmers' Unions and other stakeholders should be active in developing such networks, which should be integrated into regional and national emergency plans.

64. Category 1 and 2 responders, as defined within the Civil Contingencies Act 2004, should take account of the need to protect farm animal welfare in all disaster and emergency situations. They should involve local farm animal emergency networks and, where necessary, should seek help and advice from the Animal Health and Veterinary Laboratories Agency.

65. The Animal Health and Veterinary Laboratories Agency Disease Alert Subscription Service should be expanded to cover other types of emergency.

66. There should be greater veterinary involvement in the development and review of emergency action plans and in supporting local emergency networks in contingency planning for farm animal welfare.

67. Training for veterinarians in emergency response should be promoted.

68. Contingency plans should include humane methods of slaughter and carcase disposal.

69. Town and country planning, and fire regulations, should take account of hazards to farm animal welfare.

70. Insurers should encourage livestock farmers to have contingency plans, which include protection of animal welfare, through incentives associated with the terms and price of insurance.

APPENDIX 1. CASE STUDIES

Cattle rescue following a road traffic accident

In 2006, a cattle trailer towed by a tractor overturned on a roundabout just off junction 2 of the M27. The trailer had overturned on a lamp post and one cow was in contact with live wiring causing mild electrocution. The incident was attended by Hampshire Fire and Rescue Service. Initial police responders released some animals, however, once the specialist animal rescue team arrived, the cattle were collected, a replacement vehicle provided and all livestock loaded safely.



Photo courtesy of Hampshire Fire and Rescue Service

Flooding

Dairy and livestock farmers faced a number of problems during and after the floods of 2007. In some cases, farmers had to save their animals from drowning or prevent them from drinking contaminated water; about 1,000 sheep were reported to have died in Staffordshire while several thousand chickens drowned in Lincolnshire. Dairy and livestock farms also experienced loss of grazing and forage crops, creating an additional expenditure on animal feed as well as affecting growth rates and milk production.

The water requirements of farms and farm animals also present a problem. For example, dairy cattle require between 70 and 90 litres of water per head per day. The National Farmers' Union (NFU) state that farmers affected by the loss of mains water as a result of the flooding felt that their needs were not adequately provided for, as they were often left to source their own water supplies for animals removed from pastures and housed in barns to escape the floods. The NFU suggest that this may have been because water companies and emergency responders were unaware of the location of farms or the potential impact of flooding on farm animals, particularly livestock.

Fire in a poultry shed

Over 60,000 chickens were killed at a poultry farm in Leicestershire in August 2010, when a severe fire caused a poultry house to collapse. Fire fighters spent 13 hours trying to control the fire but were unable to save the birds. One possible cause was an electrical fault. The fire was not treated as suspicious, but it is not known what fire prevention, detection and evacuation procedures were in place or whether the farm met legal or assurance scheme requirements. The owner/animal keeper was reported as being absent over the weekend when the fire occurred.

Severe winter weather

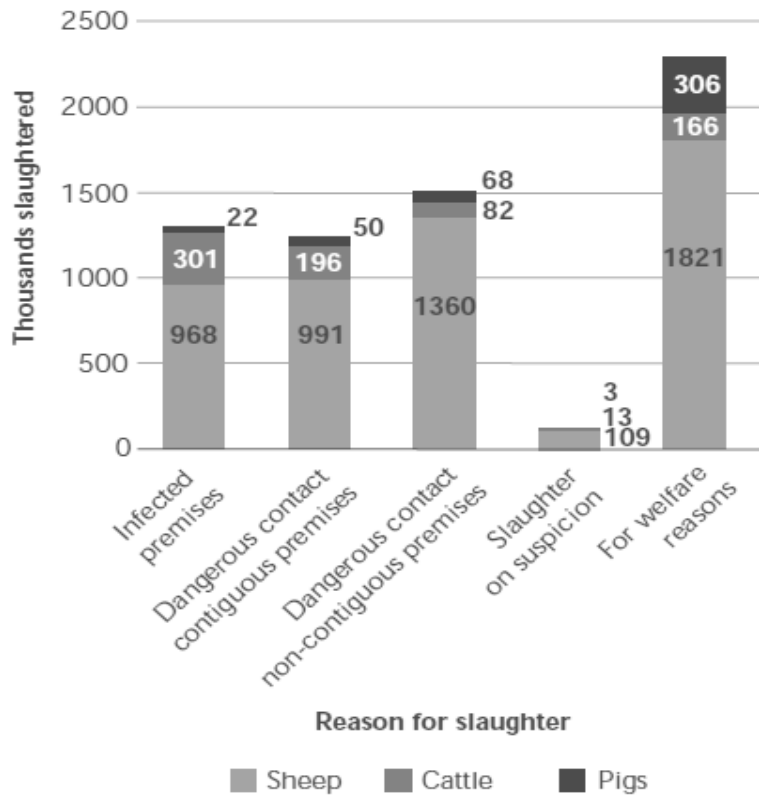
In November 2010, much of the UK was hit by exceptionally severe weather, leaving many parts of the country cut off by snow. Local groups such as the NFU responded to appeals for help from farmers. The Defra Animal Welfare Team took the lead in ensuring that web-based advice was available to farmers and others responsible for pets and livestock. This explained how to protect animals and ensure that they had access to feed and water. The Welfare Team also established contact with others including AHVLA, the NFU and the RSPCA to collate information on the welfare of animals affected by the severe weather and to relay this information to those co-ordinating the Government's response.

Key issues included feed shortages, particularly in relation to intensively-reared poultry, and access to feed mills and poultry production sites. Salt supplies for road gritting were prioritised and Defra's interventions helped ensure that roads were gritted to enable feed lorries to access supplies. Defra worked closely with the Department of Transport to ensure that the restrictions on driver hours did not hamper efforts to protect the welfare of animals affected by the snow. A number of animals became stuck in drifts or were not easily accessible to allow feed to be brought to them. Although it proved impossible to obtain military assistance as in previous emergencies, Defra was able to work through local agencies, including the national parks, to facilitate local self-help solutions.

Foot-and-Mouth Disease Outbreak 2001

More than 6 million animals were culled over the course of the 2001 Foot-and-Mouth Disease (FMD) outbreak; 4.2 million for disease control purposes and 2.3 million for welfare reasons or under the Light Lambs Scheme. The Livestock Welfare (Disposal) Scheme, introduced on 22nd March 2001, was a voluntary scheme intended to alleviate the suffering of animals which were not directly affected by FMD but which could not be sent to market because of movement restrictions. The Light Lambs Scheme was operated between 3rd September and 26th October 2001 by the Rural Payments Agency, to slaughter lambs which could not be marketed because of the ban on exports and other movement controls and which could otherwise have faced severe welfare problems. Livestock keepers received compensation for animals culled for disease-control purposes and payments were also made for animals culled for welfare reasons or under the Light Lambs Scheme. The totals culled for welfare reasons included ~1,768,000 sheep, cattle and pigs under the Livestock Welfare (Disposal) Scheme and ~525,000 lambs under the Light Lambs Scheme.

Animals slaughtered for disease control and welfare purposes



Source: National Audit Office: *The 2001 Outbreak of Foot and Mouth Disease*

APPENDIX 2. EXOTIC NOTIFIABLE DISEASE OUTBREAKS AND INCIDENTS IN GREAT BRITAIN FROM 2001 TO 2010¹⁴

February 2001 - FMD (GB wide, first found in Essex)
July 2005 - Newcastle Disease in pheasants (Surrey)
April 2006 - H5N1 HPAI in Wild Swan (Cellardyke, Scotland)
April 2006 – Anthrax (Wales)
May 2006 - H7N3 LPAI Laying Hens (Dereham, East of England)
October 2006 - Newcastle Disease in game birds (Fenton Barns, Scotland)
February 2007 - H5N1 HPAI Turkeys (Holton, East of England)
June 2007 - H7N2 LPAI Backyard poultry (Corwen, N Wales / NW England)
August 2007 - Foot and Mouth Disease (Surrey, South East England)
September 2007- Bluetongue (BTV-8) (Ipswich but spread throughout England)
November 2007 – H5N1 HPAI Turkeys, Ducks & Geese (Redgrave, Suffolk)
January 2008 - H5N1 HPAI in Wild Birds (Abbotsbury, South West England)
April 2008 - Rabies in Quarantine (Essex, East of England)
June 2008 - H7N7 HPAI Free Range Poultry (Banbury, West Midlands)
February 2010 - EIA (Wiltshire, South West England)
November 2010 – EIA (Northumberland, North East England)
November 2010 – EIA (Devon, South West England)

¹⁴ FMD – Foot and Mouth Disease; HPAI – Highly Pathogenic Avian Influenza; LPAI – Low Pathogenic Avian Influenza; EIA – Equine Infectious Anaemia

APPENDIX 3. RESPONDING TO DISEASE EMERGENCIES

Local Response

Local responders are the basis of the response to any emergency in the UK. Emergencies or major incidents are routinely handled by the emergency services and other local responders without the need for significant involvement by central government. Examples include major road crashes, localised flooding and many industrial accidents. The police will normally take the lead in coordinating the local response where a crime has been committed or if there is a threat to public safety.

Strategic Coordinating Groups

If the scale and nature of an incident is such that it requires strategic guidance, the local multi-agency response will be coordinated through a Strategic Coordinating Group (SCG). The SCG is made up of senior representatives with executive authority from each of the key organisations involved in the local response. Membership will normally be drawn from Category 1 and Category 2 responders (as defined in the Civil Contingencies Act 2004) but may also include military representation. Other responders such as the AHVLA will also be invited where appropriate. The SCG has a very similar membership to the Local Resilience Forum (LRF), the multi-agency body responsible for planning for emergencies. There are 42 LRFs in England and Wales and 8 SCGs in Scotland.

The SCG is normally chaired by a senior police officer during the response phase, although on occasions, particularly where there is no immediate threat to life, a senior local authority official or other trained and experienced individual may assume the role. The SCG takes strategic decisions on managing the emergency locally. Operating alongside but separate from the SCG are individual agencies' own command structures, in many cases headed up by each agency's own 'Gold Commander'.

Subgroups may be convened at the request of the SCG Chair. These usually include a Recovery Coordinating Group (RCG), led by the relevant local authority, to prepare for the recovery phase and advise the SCG on response decisions that can potentially affect longer term recovery activity; and a Science and Technical Advice Cell (STAC), led by the relevant expert organisation with representation from other leading scientific and technical organisations.

Once the initial crisis response is complete, leadership of the incident will normally transfer to the RCG and the relevant local authority to oversee the recovery phase. In most scenarios, police response and local authority led recovery groups will work in parallel within a single police force area until the SCG is stood down.

Organisations and agencies involved in the local response work to the following objectives:

- i. saving and protecting human life
- ii. relieving suffering
- iii. protecting property
- iv. providing the public with information
- v. containing the emergency – limiting its escalation or spread
- vi. maintaining critical services
- vii. maintaining normal services at an appropriate level
- viii. protecting the health and safety of personnel
- ix. safeguarding the environment
- x. facilitating investigations and inquiries
- xi. promoting self-help and recovery
- xii. restoring normality as soon as possible
- xiii. evaluating the response and identifying lessons to be learned.

Operating below the local (multi-agency) SCG are three levels of command at single agency level: Strategic (Gold); Tactical (Silver) and Operational (Bronze). These will often be implemented without

the need for multi-agency coordination through the SCG with any necessary coordination taking place at silver or bronze level.

Central Government Response

The principle of subsidiarity emphasises the importance of local decision-making supported, where necessary, by coordination at a higher level. In order to aid planning and to provide guidance to responders and central government planners on when they might expect central government involvement in responding to an incident, three broad types (or levels) of emergency have been identified, which are likely to require direct central government engagement in addition to those emergencies described above which are solely managed locally. These are:

Significant emergency (Level 1) has a wide focus and requires central government involvement or support, primarily from a lead government department (LGD) or devolved administration, alongside the work of the emergency services, local authorities and other organisations. There is, however, no actual or potential requirement for fast, interdepartmental/agency, decision making which might necessitate the activation of the collective central government response, although in a few cases there may be value in using the Cabinet Office Briefing Rooms (COBR)/Cabinet Sub Committee Scottish Government Resilience (CSC-SGOR)/Emergency Coordination Centre (Wales) (ECC(W)) complex to facilitate the briefing of senior officials and ministers on the emergency and its management. Examples include most severe weather-related problems and most consular emergencies overseas.

Serious emergency (Level 2) is one which has, or threatens, a wide and/or prolonged impact requiring sustained central government coordination and support from a number of departments and agencies, and where appropriate, the devolved administrations. The central government response to such an emergency would be coordinated from COBR/CSC-SGOR/ECC(W), under the leadership of the LGD. Examples include terrorist attack, widespread urban flooding, widespread and prolonged loss of essential services, a serious outbreak of animal disease, or a major emergency overseas. The H1N1 Swine Flu pandemic, the 2007 summer floods, and the 7th July bombings in London were level 2 emergencies.

Catastrophic emergency (Level 3) is one which has an exceptionally high and potentially widespread impact and requires immediate central government direction and support, such as a major natural disaster, or a Chernobyl-scale industrial accident. Characteristics might include a top-down response in circumstances where the local response had been overwhelmed, or the use of emergency powers to direct the response or to requisition assets and resources. The Prime Minister would lead the national response.

The majority of incidents are, however, managed at the local level, with little or no involvement from central government nationally.

Responding to Outbreaks of Animal Disease

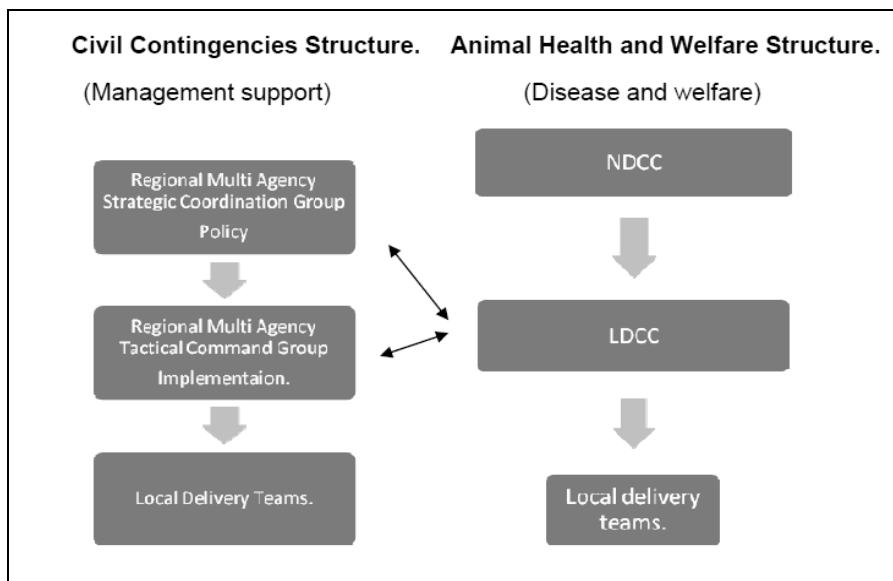
Unlike most other major incident and emergency responses, in an animal disease outbreak, Defra and the Scottish and Welsh Governments are not only the LGDs, but together with the AHVLA are directly responsible for both the local and national disease control and animal health and welfare response. The LGD and AHVLA ensure there is a co-ordinated multi-agency response.

The tactical response in Great Britain is coordinated through a National Disease Control Centre (NDCC) appropriate to the level required to handle the outbreak/incident. The NDCC brings together policy functions provided by the LGD with operations functions provided by AHVLA and other operational partners.

At the operational level, AHVLA establishes the Local Disease Control Centre(s) (LDCC(s)), headed by a Regional Operations Director (ROD) in England, Wales Operations Director in Wales and a LDCC Director in Scotland and appropriate to the level required to handle the outbreak/incident. The LDCC coordinates and implements the disease control operation, ensuring that local operational partners and stakeholders are appropriately engaged. The LDCC follows tactical direction and policy guidance set out in the relevant disease control strategies, contingency plans and operational instructions.

Although AHVLA is not a Category 1 or 2 responder, civil contingency and animal health structures are designed to operate synergistically during animal disease outbreaks with LDCCs having a critical interface function with the LRFs and SCGs if established, as shown below.

The civil contingency structures monitor and review the wider consequence management aspects of outbreaks and emergencies, whilst AHVLA deals with the disease control and animal health and welfare aspects.



Agency responsibilities in animal disease emergencies.

APPENDIX 4. ALERTS AND WARNINGS

1) Animal Health and Veterinary Laboratories Agency Disease Alert Subscription Service

AHVLA's free subscription service is designed to help people keep in touch with the latest developments regarding animal disease. The service is mainly for farmers and livestock keepers, although it is available to everyone. Information can be received (via text message, fax, voicemail or email) on notifiable animal diseases: i.e. foot-and-mouth disease; bluetongue; avian influenza; Newcastle disease; classical swine fever; and exotic equine diseases.

2) Environment Agency Flood-line Warnings

Flood-line Warnings Direct is a free service which sends subscribers a direct message (by telephone, mobile, email, text message or fax) when flooding is expected which might affect their property.

3) SEPA Floodline direct warning

Scotland's direct flood warning service provides free flood warnings to a landline or mobile phone, notifying the subscriber when a flood warning message has been issued for their local area.

APPENDIX 5. THOSE WHO PROVIDED EVIDENCE OR ASSISTANCE

FAWC gratefully acknowledges the information supplied by:

Animal Health and Veterinary Laboratories Agency
Association of Chief Police Officers
Assured Food Standards
Avian Science Research Centre
British Veterinary Association
Cattle and Sheep Health and Welfare Groups
Chief Fire Officers' Association
Civil Contingencies Secretariat, Cabinet Office
DG Sanco D5, Animal Welfare, European Commission
LACORS
Lantra
Local Government Regulation
National Beef Association
National Farmers' Union
NFU Mutual
National Farmers' Union, Scotland
National Pig Association
Quality Meat Scotland
Regional Resilience Team, Government Office for the South West
Rill UK
Royal Society for the Prevention of Cruelty to Animals
Scottish Government
Surrey County Council
Welsh Government
World Society for the Protection of Animals

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