

Animal Health 2008

The Report of the
Chief Veterinary Officer



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A PERSONAL INTRODUCTION BY THE CHIEF VETERINARY OFFICER (UK)

I am very pleased to present this report for the calendar year 2008. It provides a definitive record of government animal health and welfare activities across the UK. As with the report of 2007, the aim has been to set out an accessible, high-level overview of our work, referring readers who require more detailed information to other sources via weblinks, as most such information is published online.



Nigel Gibbens,
Chief Veterinary Officer (UK)

Joined-up working

Although animal health and welfare policy is fully devolved to the national administrations of the UK, so that key decisions are taken by the responsible departments and their ministers, such decisions are not taken in isolation. There is a framework of EU legislation that guides our activities, and all the administrations are committed to evidence-based policies. As Chief Veterinary Officer for the UK, I work with veterinary and animal health scientists, including the Chief Veterinary Officers for Wales, Scotland and Northern Ireland, to ensure that policy makers are guided by the most up-to-date science and sound veterinary analysis. I have participated in conferences and meetings within the UK, the European Union and the World Organisation for Animal Health, and conducted industry visits with stakeholders, consumers, relevant professional bodies and other external organisations including UK veterinary colleges. Collaboration and the sharing of veterinary expertise are particularly important in relation to the major animal diseases, with their potential for rapid spread, devastating consequences and disregard for national boundaries.

I am pleased that this partnership has worked well throughout 2008. Where differing directions have been taken – for example, with respect to bluetongue vaccination and the control of bovine tuberculosis – these have always been consistent with our common disease-control objectives, while reflecting different policy considerations.

Structure of this report

This report begins with introductory overviews from the four national administrations and our key delivery partners.

It goes on to provide an account of all our activities, structured under the reasons for government intervention that are set out in the Animal Health and Welfare Strategy for Great Britain:

- to protect human health
- to protect and promote the welfare of animals
- to protect the interests of wider economy, environment and society
- to protect international trade.

The administrations of England, Scotland and Wales jointly published the Animal Health and Welfare Strategy for Great Britain in 2004. Northern Ireland pursued a separate high-level strategy which recognises the epidemiological importance of the island of Ireland. However, our strategies have much in common and while we have referred to the Great Britain strategy to structure much of this report, it includes many activities undertaken in Northern Ireland and across the UK.

Government intervenes where the market on its own cannot deliver some or all of its animal health and welfare strategic objectives, and uses the Strategy's reasons for government intervention as its starting point for any deliberations on action.

Work in a particular area, such as animal identification or general disease control, can often contribute to more than one objective. In such cases we have reported the work under whichever of the four reasons for intervention was most relevant, while also noting any additional relevance. I hope that this approach will help illustrate how decisions on government action, and relative priorities, are made, enabling us to make best use of available resources at all levels.

The report concludes with an assessment of how we have acted across Great Britain to deliver the major themes of the Animal Health and Welfare Strategy:

- working in partnership
- prevention is better than cure
- ensuring a clearer understanding of costs and benefits of animal health and welfare practices
- understanding and accepting roles and responsibilities
- delivering and enforcing animal health and welfare standards effectively.

It is important that these aims remain central to our thinking, as they deliver benefits for animals, their owners, society, public health and the wider rural economy.

New challenges

The future will undoubtedly bring new challenges. Climate change may bring new disease threats to farmed and companion animals, and change the incidence and distribution of endemic diseases. Action to reduce the climate change impact of livestock production, or the response of producers to climate change itself, may alter the location, structure and operation of our livestock industries, again affecting the risk of disease and potentially impacting on animal welfare.

Animal health services must seek to address the challenges and minimise the impact wherever possible. Whilst there is uncertainty about the speed and nature of change, what is certain is that we must maintain and develop our capacity to detect and respond to new threats. We need to ensure good surveillance, research and laboratory diagnostic capacity and effective delivery of animal health and welfare controls in the field – not just our emergency response but those designed to prevent problems or reduce their impact.

This report describes the progress of our continuing efforts to – in the words of the Animal Health and Welfare Strategy for Great Britain – ‘make a lasting and continuous improvement in the health and welfare of kept animals while protecting society, the economy, and the environment from the effect of animal diseases’ across the UK. I hope you will find it interesting and informative.

In the coming year, I will be reviewing whether there is a continuing need for this annual report, given the large amount of information now provided electronically on our websites and in the annual report of national administrations and our delivery partners. I would welcome your views on the value of this report, its content and structure (email: gvs@defra.gsi.gov.uk).

Nigel Gibbens
Chief Veterinary Officer (UK)



Section 1 Overviews

CHAPTER 1: OVERVIEWS BY THE FOUR ADMINISTRATIONS

Animal health matters are fully devolved to the national administrations of the UK. The Chief Veterinary Officer (CVO) (UK) meets with the Devolved Administrations (DAs) of Scotland, Wales and Northern Ireland to ensure that each Department is kept up to date on policy issues of mutual interest to help ensure a consistent policy approach across national boundaries. The CVO (UK) is responsible for animal health and welfare issues in England, for overseeing developments in the UK and for representing the UK's interests internationally.



Left to right:
Charles Milne, former CVO (Scotland),
Christianne Glossop, CVO (Wales),
Robert Houston, CVO (Northern Ireland),
and Nigel Gibbens, CVO (UK)

CVO (UK)

Major successes

There have been some major animal health and welfare successes across the UK in 2008.

The voluntary Bluetongue (BTV) vaccination campaign in England and Wales was delivered in partnership with the veterinary profession and livestock industries. The driver for this partnership approach was the desire to see greater sharing of responsibilities and costs of disease risk management with industry. In England a Core Group of industry stakeholders, veterinary professionals and government was established to develop a strategy to respond to the disease, taking into account the uncertainties surrounding the science, and sharing responsibilities for its successful implementation. Scotland successfully delivered a compulsory BTV vaccination campaign and Northern Ireland chose to maintain freedom without vaccination. No circulating BTV 8 was found in the UK in 2008.

Two outbreaks of Highly Pathogenic Avian Influenza (HPAI) in England were controlled effectively. The coordinated response by Defra, Animal Health, the Veterinary Laboratories Agency (VLA), the Health Protection Agency (HPA), the Environment Agency (EA), Local Authorities (LAs) and – in the Oxfordshire case – the police protected the health of people working with affected birds and limited spread to wild birds or poultry populations. Similarly a coordinated response and enactment of the Defra contingency plans also helped to contain in quarantine the case of rabies in an imported puppy.

Salmonella is an important cause of food-borne illness in humans, and reduction of its prevalence in food animal production is an essential factor in the sustainable control of levels of the disease in humans. Considerable progress has been achieved to reduce *Salmonella* in primary production sectors through introduction of National Control Programmes (NCPs) as part of the implementation of the EU Zoonoses Regulation (EC) No 2160/2003 and Directive 2003/99/EC. UK results for breeding flocks of domestic fowl (*Gallus gallus*) and turkeys were very encouraging, with prevalence figures of below 0.1 per cent and below 1 per cent respectively for the designated *Salmonella* types. Although the UK results from the EU-wide prevalence survey of *Salmonella* in slaughtered pigs were higher than the EU average, we welcome the proactive approach from the industry to address the issue, particularly the launch of the Zoonoses Control Programme (ZNCP) in pigs. This industry initiative involves both farmers and processors making progress on reducing *Salmonella* prevalence before official controls come into force.

The UK Veterinary Surveillance Strategy (VSS) continues to deliver good results, strengthening the collaboration between government and organisations conducting surveillance for animal health issues. Chapter 7 provides examples of the strategy in action. New initiatives launched in 2008 were the Small Animal Veterinary Surveillance Network (SAVSNET) and the Prioritisation project. Both projects play a role in the targeting of surveillance and in controlling threats that have the greatest potential to affect human health, animal welfare and the economy.

Likewise, the newly formed committee the United Kingdom Zoonoses, Animal Diseases and Infectious Group (UKZADI) brings together experts from human and animal health fields across the UK to advise governments on risk and hazards posed to human and animal health from pathogens (including zoonoses).

The UK influence in negotiating a compromise to the Animal By-Products (ABP) Regulation is another example of the administrations working together to achieve common aims and goals. In addition, we have been successful in working with non-governmental organisations to mount the International Forum on Global Aspects of Farm Animal Welfare in April 2008. This has led to increased backing for the EU demand that animal welfare be included in World Trade agreements.

In Northern Ireland good progress has been made towards eradicating Aujeszky's disease. The Northern Ireland Brucellosis initiative has delivered real benefits by contributing to a decline in annual herd incidence.

There are continuing challenges, the most significant being the increasing incidence of Bovine Tuberculosis (bTB) in England and Wales. The administrations worked with stakeholders to develop their long-term control strategies with a view to eradication, while Scotland maintained controls to protect its low-incidence status. There was an announcement by the Secretary of State that government policy in England would be not to issue licences to cull badgers to prevent bTB in cattle, and that government will commit £20 million to be spent on TB vaccine development over three years. Work is now under way to establish a Badger Vaccine Deployment Project. The Bovine TB Eradication Group was set up to make recommendations to Ministers on bTB and its eradication. In Wales more public funds were committed to support a comprehensive bTB Eradication Programme which includes the testing of all cattle herds. Northern Ireland continues to implement its bTB control programme and is pursuing a new strategic approach for dealing with bTB to address three key strands together: real partnership between government and industry; controlling the spread of bTB between cattle; and addressing the wildlife factor.

We are pleased that Bovine Spongiform Encephalopathy (BSE) cases continued to decline as the World Organisation for Animal Health (OIE) confirmed the UK's controlled risk status for this disease.

In the area of animal welfare, the creation of the Welsh Assembly Companion Animal Welfare Enhancement Scheme provides a real opportunity to raise standards. England and the devolved administrations welcomed the Commission's proposal to review the Directive on the welfare of animals at slaughter or killing.

The stakeholder bodies set up by Defra, the Scottish Government and the Welsh Assembly Government are continuing to help in guiding the Animal Health and Welfare Strategy (AHWS) to delivery.

Delivering the strategy in England

The England Implementation Group (EIG) continued to oversee the delivery of the AHWS in England – encouraging, challenging and supporting all those who can help deliver the strategy to make a difference in this area. Its activities in 2008 included the following:

- In April the group launched an online England Implementation Plan (www.defra.gov.uk/animalh/ahws/eip/index.htm) showing what key stakeholders are doing to help implement the strategy. It also published an associated report on the progress being made (www.defra.gov.uk/animalh/ahws/eig/pdf/second_prog_report2008.pdf).
- EIG encouraged debate on responsibility and cost sharing in animal health and welfare, taking a leading role in Defra's spring 2008 consultation on principles by chairing national and regional stakeholder discussions.
- The group continued to meet with the regions to challenge them on their progress – in particular the South East and South West. It explored the use of funding from the Rural Development Programme (RDP) for England to support livestock health and welfare, encouraging joined-up thinking across the sectors.
- February saw the inaugural meeting of an EIG subgroup intended to oversee Defra's 2007 Animal Welfare Delivery Strategy (www.defra.gov.uk/animalh/ahws/pdf/awdelivery-strategy.pdf) which can be seen as a sub-strategy of the AHWS.
- In November, EIG hosted a workshop discussion on poultry welfare, bringing together producers, welfare groups, retailers and others. Participants committed to continue as a Poultry Welfare Forum, meeting for the first time in 2009.

Veterinary Head of Profession, Government Veterinary Surgeons (GVS)

GVS continued to make good progress in 2008, as highlighted by the GVS 2008 conference. This well-attended event was held in June in partnership with Cardiff University, under the banner theme of Positive Partnerships, Positive Impact.

A new Royal College of Veterinary Surgeons (RCVS) postgraduate modular certificate was developed during the year, with public sector-specific modules on epidemiology, international animal health, disease control, animal welfare and public health in relation to both food assurance and zoonoses.

The Meat Hygiene Service (MHS) produced an updated draft protocol for extra-mural study in abattoirs, for Official Veterinarians, food business operators and veterinary students in support of veterinary public health learning. A final draft protocol will be published shortly.

We have recently produced an extra-mural studies leaflet setting out how students can gain experience and progress their studies through working with government departments and agencies. We are continuing to work with our delivery partners and GVS agencies to support student placements.

More than 400 students attended three teaching days at the Royal Veterinary College, Cambridge and Bristol veterinary colleges in January 2008. The aims were several: to provide teaching on veterinary legal responsibilities and the legal framework around international, EU and national law-making; to raise awareness of the veterinary statutory role, both inside government and in wider employment; and to provide some introductory training in risk assessment and problem-solving skills.

Welsh Assembly Government

Promoting animal welfare

In April 2008, the Welsh Assembly Government launched the Companion Animal Welfare Enhancement Scheme (CAWES), a three-year programme designed to help provide guidance and education, promote an understanding of the issues affecting Wales and result in effective enforcement in the area of companion animals and wild animals in captivity.

It is recognised that many animal species other than dogs and cats – including rabbits, rodents, cage birds, exotic species, and ornamental fish – provide companionship to people. The Animal Welfare Act 2006 gave Welsh Ministers powers to take forward issues in this area.

CAWES is a real opportunity to raise standards of animal welfare. LAs are working in partnership with animal welfare organisations through the Animal Welfare Network Wales programme, itself facilitated by the Voluntary Sector Partnership. Twenty-one LAs signed up to deliver the scheme, for which the Government made £950,000 available in the first year. Codes of practice for dogs, cats and equines have already been published, and a similar code for rabbits is scheduled to be made during 2009.

A decision by the Minister for Rural Affairs, in June 2008, allowed work to continue on the development of a ban (with exemptions) on the use of electric shock collars. A consultation on the Regulations was issued in February 2009.

New ABP proposal

Wales has been working with Defra to negotiate a compromise on the Regulations regarding fallen stock, EU Regulation 1774/2002 (ABP Regulation) to allow on-farm containment prior to disposal, and has succeeded in obtaining support for its proposal.

Regulation 1774/2002, which introduced a ban on on-farm burial of fallen stock, was made in response to concerns about spread of disease, possible environmental damage and contamination of groundwater supplies. However, on-farm containment appears to meet many of the industry's concerns over cost and biosecurity, as well as providing a more environmentally sustainable option which does not increase risk to human or animal health.

The final text was agreed at the interservices triologue and voted through in the European Parliament in April, and the new Regulation is likely to come into force in 2010.

Countering endemic diseases

The Wales Animal Health and Welfare Steering Group has been actively advising and assisting the Welsh Assembly Government on its Action Plan 2008/09, including priorities such as the bTB eradication programme. It has also been discussing Wales' preparedness for exotic diseases, with the threats of BTV and Avian Influenza (AI) the main focus of concern.

The Welsh Assembly Government has been investigating a possible re-emerging risk of hydatid – caused by the dog tapeworm *Echinococcus granulosus*. A pilot scheme is being implemented on cattle and sheep farms in South Powys, carrying out tests on dogs and raising awareness of the importance of regular worming and hygiene practices.

In November 2008, the Minister for Rural Affairs agreed to consult with key stakeholders to gather views on proposed measures for tackling sheep scab in Wales. The disease is an ongoing problem for many Welsh producers, raising significant welfare issues in addition to financial and productivity implications.

Guarding against exotic diseases

2008 was, unfortunately, the year of BTV, with movement controls being declared to stop the disease entering the country. A government supply of vaccine was made available, but its uptake was severely hampered by delays in supplies from the manufacturer. However, expert opinion had held that the risk to Wales was not as high as in those areas of England where the virus was circulating, or which were included in a surveillance zone.

When South East Wales was finally declared a Protection Zone (PZ) in late June 2008 the uptake of vaccine was around 70 per cent, but after availability was extended to the rest of Wales in September it averaged only 23 per cent. Contributing factors included ill-founded rumours about suspected adverse affects, the success of vaccination in England (which played a major part in preventing re-emergence during 2008), and the impracticality of gathering animals – many of them pregnant – late in the year. The low uptake leaves Welsh livestock relatively unprotected against the virus, and a potential burden on Welsh taxpayers arising from the underwriting of the cost of unused vaccine.

Post-import testing revealed a consignment including two cases of cattle with BTV-8. Fortunately, the local midge population did not become infected and there was no evidence of circulation of disease. No additional surveillance was undertaken by the Welsh Assembly Government. The farming industry was reminded of the need for serious consideration before importing from BTV-infected countries.

Tackling bTB

During the year to December 2008, 12,201 herd tests (including use of gamma-IFN) were carried out in Wales, with a total of 1,408,492 cattle being tested. There were 1,193 new herd incidents across Wales, and 12,043 cattle slaughtered as a consequence. Compensation in 2007/08 rose to £15.9 million (from £1.8 million in 2000/01.)

An additional £27.7 million of public funds was made available over three financial years to support a programme to pursue the eradication of bTB. The Minister for Rural Affairs launched the bTB Eradication Programme in April 2008, including the following:

- All cattle herds in Wales are being tested for bTB in the 15 months ending December 2009, to provide a clearer picture of the disease across the country and allow earlier identification of infection.
- Inconclusive reactor policy has been changed. There is now only one retest for inconclusive reactors, rather than two, bringing Welsh policy in line with EU Directives and allowing this source of disease to be removed more quickly.
- Consultation has taken place with stakeholders on changes to compensation policy, including linking payments to performance as regards disease control and biosecurity.
- Preparatory work is taking place to establish an Intensive Action Pilot Area (IAPA) in the north Pembrokeshire area, where all measures would be applied to deal with the transmission of disease in cattle and wildlife, including a cull of badgers.

Northern Ireland Executive

Towards an all-Island strategy

As well as supporting the departmental goal of enhancing animal health and welfare, the development of an all-Island Animal Health and Welfare Strategy was a priority in Northern Ireland during 2008.

The practical benefits of an all-Island approach were obvious in continuing efforts to prevent the entry of BTV to the island of Ireland. Prevention was achieved by a combination of strict checks at importation points and a wide-ranging publicity campaign, supported by industry, to prevent unnecessary importation of susceptible livestock.

Fighting exotic and endemic diseases

Contingency planning against exotic diseases was another important activity during the year, with exercises such as Brown Cow, Red Rover and Kestrel for Foot and Mouth Disease (FMD), rabies and AI respectively. As global travel and trade and the effects of climate change increase, the ongoing development of such plans, in cooperation with operational partners, will remain a high priority.

During the year the Minister announced a brucellosis initiative and a new bTB strategy, designed to counter these costly endemic diseases. The brucellosis initiative has already contributed to a decline in annual herd incidence of the disease, while the phased bTB strategy that has been agreed with stakeholders will serve to strengthen the partnership between government and industry, control the spread of the disease and address the wildlife factor over the long term.

Considerable progress was also made in the eradication of Aujeszky's disease, and we are hopeful both that an eradication programme will be approved this year and that regional freedom will be achieved in the following two years.

Getting the best from information technology (IT)

Ongoing developments in IT – in particular the Animal and Public Health Information System (APHIS) – have brought benefits to both industry and government. During the year APHIS has allowed market and meat-plant operators to check and record all animals presented, so freeing Animal Health and Welfare Inspectors to concentrate on other key activities, while automatic population of routine forms is helping alleviate the bureaucratic burden. APHIS has been used increasingly by industry during the year, both in research and to model future trends in the red-meat sector.

Making enforcement work

Enforcement of animal health and welfare legislation remains an important strand supporting all our programmes, and during the year the Veterinary Service Central Enforcement Team strengthened its relationship with investigators from across the EU by hosting a meeting of the Heads of Medicines Agencies and Working Group of Enforcement Officers.

Scottish Government

BTV

Throughout the year the Scottish Government worked closely with stakeholders to support a sustainable livestock industry. At the forefront of this activity was the design of the BTV vaccination campaign jointly by the Scottish Government and industry stakeholder group.

The Scottish Government commissioned a research project to examine the epidemiological scenarios and economic consequences of BTV incursions into Scotland. The results informed discussions with stakeholders, who requested a compulsory vaccination campaign in recognition of the benefit that early mass vaccination would offer in protecting the livestock industry. The compulsory campaign started on 3 November 2008, with vaccination of all cattle and sheep required by 30 April the following year.

Looking back

Alongside this work to protect against the threat of emerging diseases, we also published former CVO Professor Jim Scudamore's review into Scotland's handling of the 2007 FMD outbreak, along with reviews of livestock movement patterns and industry structure. The review concluded that the outbreak had been handled well overall, but identified a number of areas where improvements could be made. The Scottish Government has subsequently revised the Exotic Diseases Contingency Plan, which has also been tested in exercises to ensure it remains relevant and fit for purpose.

Controlling Bovine Viral Diarrhoea (BVD)

Data collected by the Scottish Agricultural College (SAC) on the prevalence of BVD in dairy and beef suckler herds was considered by the Scottish Animal Health and Welfare Advisory Group, and momentum has been building for control of BVD across Scotland. The industry has already established two regional control schemes.

Conference

The two-day Scottish Animal Health and Welfare Conference was well attended by veterinary surgeons from varied backgrounds, along with industry stakeholders and representatives of the science community.

Research success

The Scottish Government-funded research programme held a successful review day and many other events during the year to transfer knowledge from the science base to industry. A formal review of the programme found it to be providing relevant, high-quality science in animal health and welfare.

Electronic Identification (EID) pilot

The forthcoming deadline for EID of sheep in 2010 was recognised through the Government's commissioning of a research pilot project to learn practical lessons about how systems can be used on farms and in markets and abattoirs. The results of this pilot will inform the introduction of electronic identification in the industry.

Enabling exports

On the international front, we were successful in working with the Russian authorities to obtain approval for a number of Scottish fish-processing plants, thereby allowing them to resume exports to Russia.

CHAPTER 2: OVERVIEWS BY OUR DELIVERY PARTNERS

Animal Health

Animal Health plays a key part in delivering the Animal Health and Welfare Strategy (AHWS) for Great Britain. We work to prevent, control and eradicate both exotic and endemic notifiable diseases, to minimise the economic impact of such diseases, to ensure high standards of welfare in farmed animals, to protect endangered species and to guarantee the safety of the food chain. We work with stakeholders to drive down risks related to animal health and welfare.

During 2008 Animal Health continued to play an important role in maintaining a sustainable food and farming industry, in protecting public health and in conserving endangered wildlife. We worked hard to understand and meet the needs of our stakeholders around Great Britain – both in managing outbreaks and in our wide range of other activities.

Fighting exotic diseases

The year saw continued efforts to prevent, prepare for and manage outbreaks of exotic diseases. We successfully eradicated an outbreak of H7N7 Avian Influenza (AI) in Oxfordshire in June, and managed a case of rabies in a quarantine facility in April and two cases of European Bat Lyssavirus (EBLV) in May and October respectively. To further improve our capability, we trialled the introduction of mobile Forward Operations Bases (FOBs) in order to establish a command structure closer to infected premises.

Animal Health continued to respond to the threat posed by Bluetongue (BTV), undertaking veterinary investigations of all 458 reports of suspected disease in the year and imposing movement restrictions on suspected premises. We sustained a comprehensive programme of post-import BTV testing, and expanded the now Great Britain-wide BTV protection zone on a county-by-county basis in England and across Wales and Scotland, to enable the introduction of vaccination programmes.

Recognising that vaccination is the only means of protecting animals against further incursions of BTV-8 we also supported the industry-led Joint Action against Bluetongue (JAB) campaign to encourage livestock keepers to vaccinate their animals.

Countering endemic diseases

Controlling endemic diseases continued to consume a large proportion of our resources during the year, in particular Bovine TB (bTB). We significantly increased our level of surveillance, testing some 6.3 million cattle during 2008 – up from 5.9 million and 5.5 million in the two previous years.

Responding to the Welsh Assembly Government's One Wales commitment 'to vigorously pursue a programme of bTB eradication', Animal Health began to implement bovine TB Health Check Wales, the compulsory one-off bTB testing of all herds in Wales between October 2008 and December 2009. TB Health Check Wales, which is being carried out to a demanding timescale, will provide policy makers with a comprehensive disease map to help in decision-making and in our key role of assessing and mobilising veterinary capacity across Wales.

We continued to work closely with industry and policy colleagues in the delivery of the Bovine Spongiform Encephalopathy (BSE) and scrapie controls, including the Ram Genotyping Scheme and the Compulsory Scrapie Flocks Scheme. Farm visits to blood-sample rams under the Ram Genotyping Scheme ceased in December 2008, in preparation for the scheme's closure in March 2009.

Improving welfare

Our quick responses contributed to improvement of animal welfare during the year. When cases of unnecessary pain or distress were disclosed, we took appropriate action within nine days on average, well within our 21-day target.

Thinking strategically

During the year we collaborated with policy customers, industry and stakeholders to create a new corporate strategy. This was designed to underpin our development and ensure we make the biggest contribution possible to reducing animal health and welfare-related risks across Great Britain.

The strategy has already improved our customers' experience. One example is centralisation of certain activities into specialist service centres, the first of which, in Carlisle, is now providing exporters with a single source of expert advice and support.

We also began implementing our business reform programme, introducing a customer contact database that will improve our customer knowledge and enable us to respond more effectively to future disease outbreaks.

With our new strategy has come a new corporate structure, introducing senior, customer-focused directors to make our field operations more reflective of the differing needs of our England, Scotland and Wales policy customers. At the same time we have significantly revised our organisational structure in England, aligning our divisions with the Government Office Network to support regional collaborative working.

The Veterinary Medicines Directorate (VMD)

VMD promotes the responsible, safe and effective use of veterinary medicinal products, thereby protecting public health, animal health and the environment, and promoting animal welfare.

We are an increasingly outward-facing organisation with a strong focus on the needs of our customers and stakeholders. We support Defra's objectives of protecting public health and ensuring high standards of animal welfare, and promoting a sustainable, competitive and safe food-supply chain that meets consumers' requirements. We support the Food Standards Agency (FSA) in improving food safety and we work with the devolved administrations to develop veterinary medicines policy and so contribute to their strategic objectives.

Helping counter the BTV threat

VMD works closely with Defra to identify therapeutic gaps and treatments needed to contain diseases. This year we played a significant part in the disease control strategy for BTV-8 by liaising with veterinary pharmaceutical companies developing a vaccine.

Working proactively with these companies, we enabled research data to be assessed earlier than normal and ensured its availability for the swift issue of provisional marketing authorisations for a vaccine. This provided the opportunity to use vaccination as part of Defra's disease control strategy, the success of which was demonstrated by an absence of outbreaks.

Fighting bTB

VMD achieved much in the area of bTB this year. We advised Defra on tuberculin supply problems, assisting in efforts to identify an alternative supplier. We have also been working closely with Defra on the development of badger and cattle vaccines, by providing advice on the data required to apply for product licences (a Marketing Authorisation).

Advising on policy

We continued to provide advice to Ministers on veterinary medicines policy issues such as organophosphate sheep dips and antimicrobial resistance, and lead the negotiation on veterinary medicines legislation in the EU. Our staff focused on several key policy areas, including:

- improving the availability of veterinary medicines for a broader range of animal species and ailments
- countering antimicrobial resistance to antibiotics
- applying pharmacovigilance (acting on reports of adverse reactions to medicines from across Europe)
- improving the process related to authorisation of veterinary medicines and surveillance of residues arising from their use
- making regulatory decisions increasingly transparent.

This year we also set up a team to counter illegal sales of medicines over the internet.

Working with partners

As a result of VMD's liaison with colleagues in other member states during the year, some €2 million worth of illegal medicines destined for the UK were seized in France and Belgium.

Staying in the Defra family

Following a consultation on the benefits of merging VMD with another agency, as recommended by the Hampton review on regulatory inspections and enforcement, Ministers decided that VMD would remain an executive agency of Defra.



The Veterinary Laboratories Agency (VLA)

VLA is internationally recognised as a centre of excellence in veterinary research. We provide a wide range of applied research consultancy, diagnosis and surveillance on farm animal diseases to the Government, livestock health industry and private sector.

We are a national and international reference laboratory for a wide range of farm animal diseases, with close links to research institutes and universities worldwide.

Informing policy

The nearly 100 scientists working at our Centre for Epidemiology and Risk Analysis (CERA) made a significant contribution to informing policy this year, through their input of epidemiology, statistics, risk analysis, database design and other disciplines to our programmes of work.

Modelling and risk assessment evidence presented to the Spongiform Encephalopathy Advisory Committee (SEAC), for example, was instrumental in the decision to raise the age of cattle testing for BSE from 24 to 48 months (implemented in January 2009). And a multi-centre Foot and Mouth Disease (FMD) modelling project led by CERA resulted in amendments to Defra's contingency planning.

CERA has also provided consultancy internationally, to organisations including the World Health Organisation (WHO) and the European Food Safety Authority (EFSA).

International activities

With the export of veterinary capability being the best guard against the import of disease, VLA acts as a major international reference laboratory for many exotic animal and zoonotic diseases. We also support the World Organisation for Animal Health (OIE) in its initiative to build capacity to improve veterinary services. We are partnering laboratories in China (classical swine fever and rabies), South Africa (AI and Newcastle disease) and Turkey (mycoplasma) to improve their capability to detect rapidly and control these diseases.

Our international reputation was enhanced this year by our organisation of the Brucellosis 2008 International Research Conference, held at the Royal Holloway College, London. Co-sponsored by VLA, Defra, WHO and the Technical Centre for Agricultural and Rural Cooperation, the meeting attracted over 300 delegates from 60 countries, reflecting the global nature of the disease. Covering many areas of current understanding, from applied aspects of surveillance and control programmes to the latest cutting-edge research into the biology of the pathogen, the conference made a significant contribution to the control and prevention of brucellosis – a disease with substantial economic and social impact worldwide.

Ensuring a science base for the future

Foundations were laid during 2008 to increase the number of PhD studentships at VLA. In conjunction with a network of top-ranked academic research partners, we are offering a series of PhD studentships in topical animal, veterinary and public health subjects, and it is anticipated that during 2009 we will have at least 16 additional students.

Working together to fight disease

Scientific collaboration with the Institute for Animal Health (IAH) continued throughout the year in order to utilise fully skills and facilities across the two organisations. A meeting organised by VLA and IAH discussed new approaches to detecting and assessing the prevalence of animal diseases,

bringing together colleagues from industry, government and academia. A key achievement during the year was the development of our testing service for BTV by Polymerase Chain Reaction (PCR) and Enzyme Linked Immunosorbent Assay (ELISA) for pre-movement and export purposes.

VLA laboratories confirmed AI in Oxfordshire in June, and rabies in a quarantine facility in April and EBLV in May and October. We also carried out large-scale screening for BTV and gamma interferon testing for bTB control.

A new way forward

In October 2008 Professor Steve Edwards, VLA's Chief Executive until 2008, handed over the reins to Professor Pete Borriello, formerly Director of the Health Protection Agency's (HPA) Centre for Infections at Colindale, London. Professor Borriello brings a wealth of experience from the public health arena that will help VLA and Defra fulfil our objective of protecting both human and animal health.

During 2008/09 we consulted a wide range of stakeholders on our strategic focus. The result is a new and refreshed strategy that has at its heart the delivery of real benefits.

The Meat Hygiene Service (MHS)

MHS, an executive agency of FSA, carries out official controls including meat inspection duties in fresh meat premises in England, Scotland and Wales. Our role is to verify that the meat industry complies with relevant legislation to safeguard the health of the public and the health and welfare of animals at slaughter.

A new structure

We introduced a new management structure in 2008 to support more effective and efficient delivery. The five regional offices were closed, and delivery is now based around 37 'clusters' of premises across Great Britain.

Nearly all veterinary resources for delivering official controls in approved meat establishments have been obtained through competitive tender to the National Tender Panel (the results of which were published in October 2008), which included Defra, as a major customer of MHS. The new cluster structure was implemented in February 2009 following the recruitment of employed Lead Veterinarians and the appointment of contract-based Lead Veterinarians.

The clusters are managed in groups by a new team of 12 business managers and two new business directors covering the south and north of Great Britain.

Diverse activities

MHS continued to deliver animal health and welfare objectives throughout the year, working in areas as diverse as collecting meat samples for testing for residues, verifying BSE testing of older cattle and taking samples from sheep for scrapie testing. During inspections staff also carried out surveillance for bTB and other animal health issues, compliance with animal identification Regulations and compliance with Animal By-Products (ABP) Regulations. Our staff also monitored and enforced legislation on animal welfare at slaughter.



The Local Authorities Coordinators of Regulatory Services (LACORS)

LACORS is the local government central body responsible for overseeing local authority regulatory and related services in England and Wales. We coordinate the regulatory services delivered by local government, which range from protecting consumers against illegal doorstep selling to checking hygiene standards in restaurants and food factories.

Meeting national and local needs

The important partnership between LACORS, Local Authorities (LAs), Defra and the Welsh Assembly Government continued to flourish in 2008. The introduction of a National Indicator for council work in England relating to animal health, along with setting national priorities in Wales and the development of a revised National Animal Health and Welfare Framework for England and Wales, emphasised government's respect for the hard work and commitment of local authorities in this area.

Both the National Indicator and Framework help LAs to understand key national priorities, but also provide the essential flexibility for them to respond to the unique needs of their individual farming communities. Priorities at a national level are focused on contingency planning, risk assessment, intelligence sharing and changing the behaviour of non-compliant businesses. Authorities are proactively building on these principles to help address the concerns of their own communities, ranging from bTB and poultry disease to support in isolated rural areas.

LACORS and LAs will be working hard with Defra, the Welsh Assembly Government and Animal Health in 2009 to ensure that the National Indicator, the national priorities and the Framework deliver the anticipated outcomes for all partners, industry and communities.

Working in partnership

LACORS also aims to ensure that the needs of LAs and their farming communities continue to be reflected in wider policy developments. We anticipate that the responsibility and cost-sharing agenda, proposals for a new animal health policy body, technological advances for the identification of animals, animal welfare and the continued problem of bTB will be key areas for further partnership work in the coming year.

LACORS and LAs will continue working with Defra, the Welsh Assembly Government and delivery partners to increase partnership working and intelligence-sharing to limit the burdens on businesses.

The Centre for Environment, Fisheries and Aquaculture Science (Cefas)

Cefas is an internationally renowned aquatic scientific research and consultancy centre. We aim to be the prime source of high-quality science used to conserve and enhance the aquatic environment, promote sustainable management of its natural resources, and protect the public from aquatic contaminants.

Securing Viral Haemorrhagic Septicaemia (VHS)-free status

A successful application to the European Commission this year resulted in approved-zone status for Great Britain for VHS, following a two-year surveillance programme by Cefas.

Great Britain was classified free of VHS, one of the most serious diseases of farmed rainbow trout, for many years until an outbreak in 2006 on a trout farm in North Yorkshire. The disease was successfully controlled, but approved-zone status was suspended in the affected area.

Two years of regular inspection and testing of susceptible species showed no evidence of the presence of VHS, however, and approved-zone status was reinstated for the whole of Great Britain in November 2008.

Investigating emerging diseases

New diseases continue to emerge in aquatic animals, and Cefas's investigations helped ensure that appropriate action was taken to protect both wild and farmed stock. Here are just some of 2008's investigations:

RED MARK SYNDROME (RMS)

Work was carried out to map the distribution of RMS, a disease causing skin lesions in rainbow trout and resulting in financial losses to farmers. Mapping showed that the number of affected farms in Great Britain has increased considerably in recent years to some 72 sites out of 237. Epidemiological studies to identify risk factors are under way.



Diseased fish – red mark syndrome

DISEASED RIVER SALMON

In collaboration with the Environment Agency (EA), we have been investigating wild Atlantic salmon with swollen or bleeding vents that have been observed in an increasing number of rivers in 2007 – 23 in England and Wales and more than 50 in Scotland. Clinical signs and pathology appear to be associated with larvae of the nematode *Anisakis simplex sensu lato*, but monitoring of the situation is ongoing.

FRANSISCELLA

Our Fish Health Inspectorate (FHI) investigated mortality at a tilapia farm, leading to confirmation of Fransiscella infection – the first occurrence of this bacterium in Great Britain. We are now working with the tilapia industry to improve biosecurity.

COCKLE INFECTIONS

Research by Cefas has investigated the potential role of parasites in the decline of cockles in the Burry Inlet fishery, the largest of any fishery in Wales and estimated to contribute as much as £20 million to the Welsh economy each year. Particular attention is being paid to the two digeneans parasites *Meiogymnophallus minutus* and *Bucephalus minimus*, which have been implicated in previous cockle mortality events.



Infected cockles

Fisheries Research Services (FRS)

FRS provides expert scientific and technical advice on marine and freshwater fisheries, aquaculture and the protection of the aquatic environment and its wildlife in Scotland.

We also act as the National Reference Laboratory for the diagnosis of fish and shellfish diseases, presenting our findings and scientific papers at EU Reference Laboratory meetings.

Researching disease

During 2008 we carried out scientific research into several areas of fish and shellfish disease, epidemiology and the environmental impacts of aquaculture, publishing the resulting scientific and technical papers.

Implementing through inspection

Our FHI is responsible for implementing domestic and European fish health legislation. Its main regulatory role is detecting, controlling and eradicating listed fish and shellfish diseases to prevent the introduction and spread of serious disease in Scotland, so supporting a healthy, sustainable aquaculture industry and safeguarding the health of wild fish stocks.

Its sampling and surveillance programmes in 2008 included:

- monitoring wild and farmed populations for notifiable diseases, and acting appropriately where these were found
- implementing control and eradication programmes for Bacterial Kidney Disease (BKD) and *Bonamia ostrea*
- diagnostic sampling in response to reported mortality events.

FHI also:

- introduced a programme of inspections and audits under the Aquaculture and Fisheries (Scotland) Act 2007, to ensure satisfactory measures on fish farms as regards sea lice control and containment of farmed fish
- updated the contingency plans for *Gyrodactylus salaricus*, a parasite of fish which though absent from Scottish and UK waters would be a major threat to wild stocks of Atlantic salmon
- made progress towards implementing new European Council Directive 2006/88/EC, and developed a risk-based surveillance option for introduction in 2009
- maintained relations with Member States and third countries in relation to effective trade legislative requirements for the control of fish and shellfish disease
- became involved in investigations of fish mortalities in South West Shetland, resulting in the confirmation of infectious salmon anaemia virus at the beginning of 2009.

SAC Consulting: Veterinary Services

SAC Consulting, part of the Scottish Agricultural College, provides independent, impartial advice to the rural sector and associated industries through 27 consultancy offices across Scotland and the north of England. Veterinary surgeons and scientific and support staff at our eight veterinary disease surveillance centres provide a comprehensive service to veterinary practices and the farming community in Scotland.

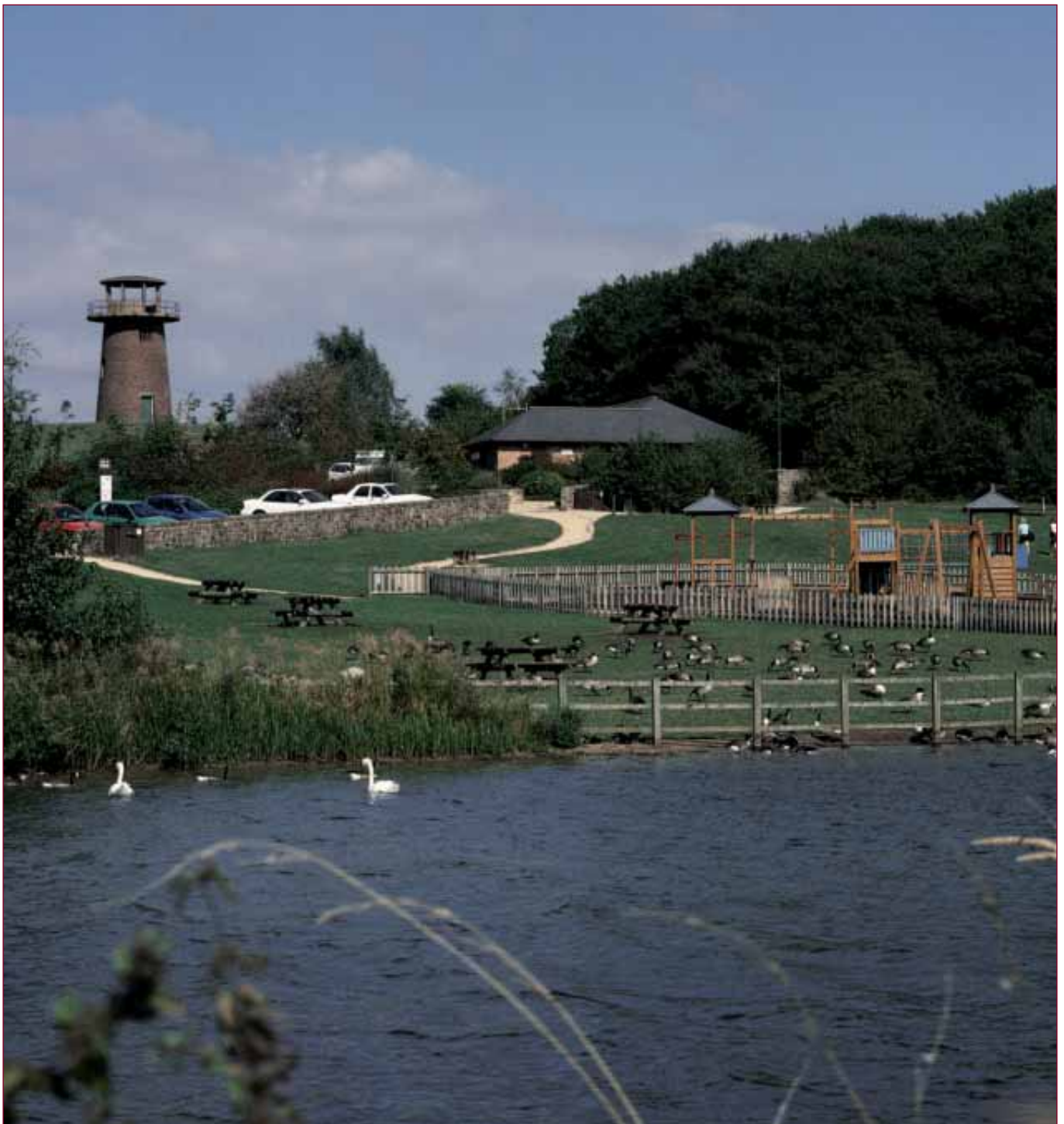
Supported by the Moredun Research Institute, our results contribute to national surveillance of farm animal diseases in Great Britain.

Testing and diagnosing

SAC tests agricultural and other materials, including plants, forages, organic manures and waters, for consultancy and research purposes. We also analyse animal feedstuffs and soils to support decisions on ration formulation and fertiliser applications, and provide farm animal veterinary practices with a wide range of quality-assured diagnostic services.

Assuring quality

Our veterinary centres have been accredited by United Kingdom Accreditation Service (UKAS) to ISO 17025 2005 standards (extending also to the opinions and interpretations of our veterinary surgeons). Technicians at our Ayr, Dumfries and Perth centres are working to achieve accreditation in 2009.



The Rural Payments Agency (RPA)

RPA plays a key role in delivering certain Great Britain-wide services on behalf of Defra and the Devolved Administrations (DAs). We work on programmes maintaining the Cattle Tracing System (CTS) for England, Scotland and Wales (via the British Cattle Movement Service (BCMS)) and supporting the Animal Movement Licensing System database (underpinning the tracking of sheep, pig and goat movements by LAs.)

Disposing of older cattle

RPA administered the Older Cattle Disposal Scheme (a compensation scheme for cattle born or reared in the UK before 1 August 1996, which are ineligible for the food chain due to potential risk of BSE) until it closed on 31 December 2008. We disposed of a total of 406,316 animals under the scheme.

Sampling for Transmissible Spongiform Encephalopathy (TSE)

During the year RPA provided services for the collection, sampling and disposal of fallen cattle requiring testing for BSE under the TSE Regulation. Services at a total cost of over £33 million in the 2008/09 financial year were provided by 14 contractors. Towards the end of the year we worked closely with colleagues in Defra, VLA and Animal Health to transfer responsibility for sampling to industry in time for the 12 January 2009 deadline.

Collecting fallen stock

Until 31 March 2008 we were also responsible for administering the National Fallen Stock Scheme (NFSS) – the government-backed, UK-wide voluntary scheme for collection and disposal of fallen stock was run by the National Fallen Stock Company (NFSCO). Between 2004 and March 2008 the company attracted a membership of over 44,000 livestock farmers from across the UK and administered over 1.2 million collections of fallen stock.

An aerial photograph of a lush green valley. The landscape is divided into numerous fields by a network of dry stone walls. A narrow stream flows through the valley, winding between the fields. In the background, rolling hills and mountains are visible under a clear blue sky. The overall scene depicts a rural, agricultural landscape.

Section 2 Reasons for government intervention

CHAPTER 3: PROTECTING HUMAN HEALTH

The early detection and control of animal diseases that can impact on human health is clearly a high priority for all involved in animal health. Some infectious diseases of animals which can infect people (zoonoses) are notifiable under UK legislation.

This chapter looks at government interventions to protect the health of the public – from programmes to eradicate or reduce the prevalence of endemic zoonotic diseases to measures preventing exotic zoonotics, such as rabies, from entering the country.

In many cases disease control on-farm needs to be combined with other activities. These can include food controls, such as milk pasteurisation, and public education about the handling and cooking of food.

This chapter also includes an account of the significant role played by the UK in a new European Commission proposal to revise the Animal By-Products Regulation (EC) No 1774/2002.

Surveillance for public health

The Zoonoses Order 1989 requires laboratory operators to report to government officials the identification of *Salmonella* and *Brucella* in samples taken from, or associated with, certain animals. Data on *Salmonella* is collated into an annual report on *Salmonella* in livestock species in Great Britain; this provides a valuable source of information on the types of *Salmonella* found in animals, both in clinical disease and in routine monitoring by industry, and the occurrence of antimicrobial resistance in *Salmonella* isolates. The latest available report (for 2007) is available on the Veterinary Laboratories Agency's (VLA) website at www.defra.gov.uk/vla/reports/rep_salm_rep07.htm.



Countering brucellosis

Great Britain remains a brucellosis-free region of the EU for cattle, sheep, goats and pigs (see table below), with the most recent confirmed case in cattle occurring in 2004.

In addition to cattle, sheep, goats and pigs, VLA also had a total of 64 submissions taken from marine mammals. *Brucella* marine species were isolated from seven of these, and 10 were serologically positive. These results are consistent with findings in previous years and do not affect Great Britain's *Brucella*-free status.

A brucellosis factsheet is available at:

www.defra.gov.uk/animalh/diseases/notifiable/brucellosis/index.htm.

Species	<i>Brucella</i> species	Testing	Number tested	Number positive
Cattle	<i>B. abortus</i>	Monthly bulk milk testing of all dairy herds	Monthly testing of all dairy herds	0
Cattle	<i>B. abortus</i>	Post-import testing	6,402	0
Cattle (imported females)	<i>B. abortus</i>	Post-calving testing	2,798	0
Cattle	<i>B. abortus</i>	Abortion investigation	6,823	0
Sheep	<i>B. melitensis</i>	Annual survey	23,055 sheep from 1,348 flocks	0
Sheep	<i>B. melitensis</i>	Abortion investigation	2,376	0
Sheep	<i>B. ovis</i>	Export testing	286 serum samples	0
Sheep	<i>B. ovis</i>	Import testing	108 serum samples	0
Goats	<i>B. melitensis</i>	Annual survey	522 goats from 145 herds	0
Pigs	<i>B. suis</i>	Investigation of possible cases	79	0
Pigs	<i>B. suis</i>	Testing for use in artificial insemination programme	91	0
Dogs	<i>B. canis</i>	Export testing	2,671	0

Countering *Salmonella*

Salmonella is an important cause of food-borne illness in humans, accounting in 2007 for 13,213 confirmed cases in humans in the UK and 151,995 confirmed cases across the EU. Some of the roughly 2,500 types of *Salmonella* are considered to be of greater public health significance, most importantly *Salmonella* Enteritidis and *Salmonella* Typhimurium, which account for the majority of human salmonellosis cases in the UK and the EU.

During the year Defra progressed the National Control Programmes (NCPs) to reduce *Salmonella* in primary production sectors, as required by the EU Zoonoses Regulation (EC) No 2160/2003 and Directive 2003/99/EC (see www.defra.gov.uk/animalh/diseases/zoonoses/ncp.htm).

CHICKENS

- Breeding flocks



UK results for breeding flocks of domestic fowl (*Gallus gallus*) in 2007 were very encouraging, with a prevalence figure of below 0.1 per cent for the designated *Salmonella* types. The results for 2008 – the second year of the NCP – were reported to the European Commission in May 2009.

- Laying flocks

This NCP, for reduction and control of *Salmonella* Enteritidis and *Salmonella* Typhimurium on layer farms, was implemented in the UK in February 2008. Operators now have to take samples from day-old chicks, as well as from rearing pullets and adult birds every 15 weeks during production. They also have to review their control measures and, where there is a problem, take measures such as cleaning, disinfecting and improving biosecurity and pest control. Producers with more than 1,000 hens also have an annual official sample collected under the control of the competent authority.

- Broiler flocks

Following the European Commission's approval of the UK's overall approach to controlling *Salmonella* in chickens reared for meat (broilers), Defra consulted on proposals to introduce an NCP from January 2009. Details are available at: www.defra.gov.uk/corporate/consult/broilers-ncp.

TURKEYS

An EU-wide survey of commercial breeding turkey and fattening turkey holdings was carried out between September 2006 and October 2007, with the aim of establishing a baseline prevalence.

UK results showed moderate levels of *Salmonella* in the fattening sector, but – encouragingly – fewer than 10 per cent of flocks were infected with *Salmonella* Typhimurium and none had the Enteritidis, Hadar, Infantis or Virchow serovars.

In the breeding sector there was only a very low level of *Salmonella* Typhimurium infection (less than 1 per cent), and no Enteritidis, Infantis, Virchow or Hadar serovars – well below the EU mean-weighted prevalence. Although this was the UK's first survey, so without a comparator, the result suggests that actions by the industry and Defra have been effective. It is encouraging also because control in the breeding population is fundamental to control in the fattening sector, so bodes well for implementation of the UK's NCP for *Salmonella* in turkeys in 2010.

Following negotiations with the European Commission, the target for reduction of *Salmonella* Enteritidis and Typhimurium in turkeys was set at no more than 1 per cent of flocks remaining infected by the end of 2012 (Regulation (EC) No 584/2008).

PIGS

Results of the EU-wide survey of *Salmonella* in slaughter pigs, conducted between October 2006 and September 2007, were published in 2008. UK results were consistent with similar UK surveys in 1999 and 2003 and with routine monitoring under the industry Zoonoses Action Plan (ZAP) scheme.

Overall the UK prevalence was 21.8 per cent for all *Salmonella* types, which is above the EU average of 10.3 per cent. The most frequent *Salmonella* serovar isolated in lymph node samples in UK was *S. Typhimurium*, with an observed prevalence of 13.8 per cent (EU average 4.7 per cent), with the second being *S. Derby* at 4.8 per cent (EU average 2.1 per cent). Twenty one other serovars were identified. Five *Salmonella* serovars including *S. Typhimurium* are recognised by the EU as being of greatest public health significance; of these *S. Enteritidis* was found in only two animals, and there were no isolates of *S. Hadar*, *S. Infantis* or *S. Virchow*.

Another EU baseline survey, of *Salmonella* prevalence in breeding pigs, was carried out in January and December 2008. The results of this survey will be reported later in 2009.

The results of both surveys will enable the Commission and Member States to set a reduction target for *Salmonella* in slaughter and breeding pigs – expected in late 2010 or early 2011 – after considering the results of a quantitative microbiological risk assessment and a cost/benefit analysis. In collaboration with the industry and other partners, government will then consult and develop a statutory NCP which will build on the control programmes that industry has operated on a voluntary basis since 2002.





In April 2008 the industry launched the Zoonoses National Control programme for *Salmonella* in pigs (ZNCP), involving both farmers and processors, to help make progress on reducing *Salmonella* prevalence before the official NCP begins. More information on the ZNCP initiative can be found at the British Pig Executive's website: www.bpex-zap.org.uk.

Full reports of both surveys and details of the 2008 breeding pig survey are available at: www.efsa.europa.eu/en.html.

CAMPYLOBACTER

A 12-month EU survey on the prevalence of *Campylobacter* in broilers and *Salmonella* and *Campylobacter* in broiler carcasses began in January 2008 and ran until the end of December 2008 (as required by Commission Decision 2007/516/EC). Samples were collected from approved UK slaughterhouses, ensuring over 80 per cent representation of UK production.

The aim of the survey was to obtain comparable data for considering the need, feasibility, cost and benefit of Community-wide control measures on *Campylobacter* and *Salmonella* in broilers and broiler meat. Results will be published in 2009/2010.

Currently, Defra and the Food Standards Agency (FSA) are also carrying out research into *Campylobacter* in poultry, aimed at developing an evidence base for a risk-based approach to its control in broiler flocks.

Reporting on zoonoses

TRENDS AND SOURCES

Under Directive (EC) No 2003/99, Member States are required to report to the Commission every year on the trends and sources of specified zoonotic agents in animals, food and feed.

The UK report for 2007 was published in January 2009, and is available at:

www.defra.gov.uk/animalh/diseases/zoonoses/pdf/report-2007.pdf. It shows that, although figures varied considerably between Member States, *Campylobacter* infections still topped the list of zoonotic diseases in the European Union, while the number of cases due to *Salmonella* infections in humans fell for the fourth year in a row. Cases of listeriosis remained at a similar level to previous years.

The report for the entire Community is available on the EFSA website at:

www.efsa.europa.eu/EFSA/efsa_locale-1178620753812_1178671312912.htm.

THE UK ZONOSSES REPORT 2007

The UK Zoonoses Report for 2007 was published in October 2008 and is available at:

www.defra.gov.uk/animalh/diseases/zoonoses/reports.htm.

The report includes a finding of H5N1 in a wild swan in Scotland in 2006 and Low Pathogenic Avian Influenza (LPAI) H7N3 in poultry in Norfolk. A cluster of Q fever cases was also identified.

There was an increase both in new incidents of bovine Tuberculosis (bTB) in cattle during 2007 and in the number of herds tested. An increase in the number of *Campylobacter* and Lyme Borreliosis was seen throughout the UK during the year. However, there was a decrease in human cases of VTEC 0157 and *Salmonella* compared with 2006.

Although some increases were seen in 2007, generally there was a continued downward trend in major zoonoses incidents, indicating that government and industry policies are contributing to the successful control of these diseases.

Enhancing surveillance

The UK Veterinary Surveillance Strategy (VSS) was launched in 2003 with a 10-year implementation plan. VSS seeks to enhance surveillance so that emerging risks, including threats to public health, are identified more quickly. VSS has established a network of surveillance activities supported by defined processes for sharing and analysing information.

Here are some examples from 2008:

- Deaths of mute swan cygnets (*Cygnus olor*) caused public concern about the possibility of AI at several lakes in England. In each case the VLA, as part of the Defra-funded wildlife scanning surveillance project, diagnosed endoparasitism due to *Amidostomum sp.* and *Echinuria sp.* Fears were allayed when it was made clear that there were no associated risks to human health.
- A potential new and emerging respiratory disease in wild crows living and feeding in an outdoor pig farm is thought to involve *Pasteurella multocida* infection. The disease was assessed by the Human Animal Infections Risk Surveillance (HAIRS) group, which decided there was no significant increased zoonotic risk. This assessment will be kept under review in the light of any future findings from ongoing monitoring.
- Routine collection of carcasses in Dorset, part of Defra's Avian Influenza Wild Bird Surveillance (AIWBS) programme, identified Highly Pathogenic Avian Influenza (HPAI) H5N1 in wild swans. Infection was restricted to wild swans on the Fleet lagoon, and no infection was identified in other species of bird (see also page 42). Surveillance of legally trapped birds also identified evidence of 16 non-notifiable AI infections. There were also changes to AIWBS during the year, whereby members of the public were no longer asked to report findings of small numbers of dead birds, but only mass mortality incidents involving 10 or more birds in England and Wales and five or more in Scotland and Northern Ireland.

- Two cases of lead toxicity in free-range birds resulting from the ingestion of lead shot were confirmed. In both cases the FSA was informed, and appropriate advice was given. In one case, laying hens were investigated as a result of reduced productivity. Eggs produced by these hens were also shown to have high levels of lead, and were withheld from sale.
- In June, caprine TB was diagnosed in an adult female Golden Guernsey goat necropsied at VLA Carmarthen as part of the small ruminant disease scanning surveillance programme (and see page 49). Following confirmation of *Mycobacterium bovis* infection by culture of the typical TB lesions from this animal, a tracing exercise identified other clinical cases and skin test reactors over the summer in 10 separate smallholdings in South West Wales and the West of England. These had purchased goats from the index herd. All the suspect goats were culled, leading to the disclosure of 32 further culture-positive animals.
- In 2008, 17 incidents of swine influenza were detected in the pig herd in Great Britain. The virus sub-types identified during the year were avian-like swine H1N1 (the most commonly recognised swine influenza in UK pigs) and H1N2. Influenza in pigs is present in all pig-producing countries, including the UK, where surveillance has been conducted since 1991 to monitor which virus strains are present. Influenza in pigs can occasionally cause disease in humans, but this is unusual. The pandemic (H1N1) 2009 virus currently causing disease in humans has never been isolated from pigs in the UK.

Improving food safety

In 2008 VLA reported to FSA 93 potential food safety incidents related to animal products, slightly fewer than the 103 in 2007. As in that year, most incidents were caused by lead and botulism.

Accidental exposure to chemical contaminants and toxins on farms cannot be avoided entirely, but the figures underline the need for promotion of best practice; initiatives to promote chemical food safety on farms were put in place during the year.

VLA published a review paper in 2008 on the diagnosis and implications of botulism in food animals. It also began preparing advisory information on best practice and avoiding contamination, which will be published in 2009 on the Defra, VLA and FSA websites, as well as being promoted in farming and veterinary publications and supplied directly to farmers and private veterinary surgeons through VLA's regional laboratory network.

VLA publishes information on food safety incidents in the quarterly report *Chemical Food Safety*, at: www.defra.gov.uk/vla/reports/rep_food.htm.



Preventing rabies incursions

Rabies is a fatal viral disease of the nervous system caused by a rhabdovirus which can affect all mammals including humans. The disease is usually spread by saliva from the bite of an infected animal. Clinical signs include paralysis and aggression, leading to a painful death.

Defra maintains pet movement controls to protect the public and animal health, and to mitigate the risk of rabies and certain tick-borne and tapeworm diseases. Details are on the website at: www.defra.gov.uk/animalh/diseases/notifiable/rabies/index.htm.

In April 2008 a case of rabies was confirmed in a quarantine facility in south east England, in a puppy imported from Sri Lanka. Defra immediately mobilised its contingency plans, including placing the facility under restriction to prevent any movement of animals in or out. Four other dogs that entered the quarantine facility from Sri Lanka at the same time were euthanised on a precautionary basis.

Defra and the Health Protection Agency (HPA) worked closely to identify all potential human and animal contacts with the dogs, and HPA ensured that all individuals known to be at risk received appropriate treatment. As the case occurred in quarantine the UK continues keep its rabies-free status.

In June 2008, the European Commission confirmed the extension of the UK's current controls for pet movements until June 2010.

Looking out for European Bat Lyssavirus (EBLV)

There were two separate cases of EBLV type 2 (a virus related to that causing classical rabies) in Daubenton bats – one in Surrey (May) and the other in Shropshire (October). Both were investigated by HPA, which was satisfied that there had been no potential human or animal contacts.



Controlling Bovine Spongiform Encephalopathy (BSE)

BSE is a notifiable Transmissible Spongiform Encephalopathy (TSE) primarily affecting cattle and first identified in the UK in 1986.

In March 1996, BSE was linked to the human disease variant Creutzfeldt-Jakob Disease (vCJD). By the end of 2008 there had been 167 cases of definite or probable vCJD in the UK, three of which were linked to blood transfusion before 1999.

Historically, BSE was confirmed in a French goat which died in 2002, and there was a probable case in a British goat which died in 1990. BSE has been linked to cases of TSE in domestic and exotic cats and cases of TSE in exotic ruminants. Experiments show that sheep and red deer are susceptible to BSE.

Developments at home

This year cases of BSE in Great Britain fell by 45 per cent – down to 37 cases from 67 in 2007. Thirty-five of these were detected by passive surveillance, while scanning surveillance (investigation of reported suspect cases) accounted for the other two.

The UK was categorised by the World Organisation for Animal Health (OIE) in 2008 as 'controlled risk' for the disease, which is in line with most other EU countries (see www.oie.int/eng/Status/BSE/en_BSE_free.htm).

Defra continued working towards its Public Service Agreement (PSA) target of eradicating BSE in Great Britain by 2010. Although incidence of BSE is very low and declining, it is likely that there will be a very small number of cases in 2010 and for some years thereafter, as the incubation period is long. Numbers will primarily be influenced by the longevity of cattle born or reared in the UK before the reinforced feed ban in August 1996. The Older Cattle Disposal Scheme (OCDS) (which closed during 2008) removed 406,316 of these cattle from the UK population.

Following the EU's TSE Roadmap

During 2008 the Government worked with national and international stakeholders to progress the objectives of the European Commission's TSE Roadmap (http://ec.europa.eu/food/food/biosafety/bse/roadmap_en.pdf) as follows:

- The age limit for removing bovine vertebral column as Specified Risk Material (SRM) increased from 24 to 30 months.
- Fifteen Member States were allowed to raise the age threshold for BSE testing of fallen and slaughtered cattle to over 48 months, from 1 January 2009. FSA agreed to implement the changes on the basis of advice from the UK's Spongiform Encephalopathy Advisory Committee (SEAC) and the European Food Safety Authority (EFSA).
- The EU adopted a measure permitting the feeding of unweaned ruminants with milk replacer containing fishmeal, a move informed by an EFSA opinion, increased test performance and a scientific assessment of the dietary needs of young ruminants. The EU also agreed measures to extend the risk-based tolerance of insignificant amounts of bone fragments arising from the environment to all plant-based feed in 2009.

Research into TSEs

Research to evaluate the relative risk to human health from animal TSE isolates is under way. This work is being carried out in parallel with complementary studies funded by FSA.

An in-depth investigation using up-to-date methods of archived BSE isolates from cattle was completed in 2008 and has found no evidence for the presence of undetected forms of the disease. A study to collect data on the operations involved in animal feed production use across the UK reported in 2008. Two projects designed to aid monitoring of controls by improving the ability to detect species-specific processed proteins in animal feed will be completed in 2009.

Equine identification

New rules on passports

New European legislation revising existing legislation on horse passports came into effect in June 2008, requiring that foals and older horses without a passport be microchipped from 1 July 2009. This measure will provide an important link between the horse and its passport, making confirmation of identification easier.



Defra organised a series of focus groups and stakeholder workshops to raise industry awareness of the new rules and ensure that key issues were identified for further consultation. This was launched in November 2008 with a response date of 2 February 2009.

Microchipping will help to recover stolen horses and identify abandoned or welfare cases. Accurate identification will also aid the control of a disease outbreak. Improvement of the current system will strengthen controls at the slaughterhouse, thereby protecting the food chain and preventing the withdrawal of key veterinary medicines.

New online resource

NED Online, a new industry-owned website of the National Equine Database (NED), was launched in November 2008. NED is a joint government/industry project, designed to improve the quality of British-bred horses; the site links core passport data to competition and pedigree records. It holds a core government database of the mandatory horse and owner details appearing on UK-issued equine passports. In existence for two years and with 7,000 members to date, it is used by government to monitor passport compliance and aid disease control and surveillance. NED will play an important role in the enhanced horse passport system (see above.)

Reducing the burden of by-products controls

Government played a significant role this year in a new Commission proposal to revise the Animal By-Products Regulation (EC) No 1774/2002.

Introduced across the EU in May 2003, the Regulation introduced stringent conditions on collection, transport, storage, handling, processing, uses and disposal of animal carcasses and parts not for human consumption.

The new proposal, issued in June 2008, largely meets the UK government's aims for a de-regulatory approach, involving a net reduction in controls which make them more proportionate to the risks.

Defra and the Devolved Administrations (DAs) launched a formal consultation in November 2008, and met with a number of key stakeholders to help inform its negotiating position. Key issues raised by Defra included arrangements for containment of fallen stock on-farm pending disposal, provisions for the use of tallow as a fuel and the potential broadening of derogations – for example, to cover disposal of small quantities of animal by-products.

The revised Regulation was agreed in 2009 under the Czech Presidency of the EU, and will come into force in 2010.

CHAPTER 4: PROTECTING AND PROMOTING THE WELFARE OF ANIMALS

Owners of animals are responsible for the health and welfare of their animals, and need to understand and provide for their care. Both the Animal Welfare Act 2006 and the Animal Health and Welfare (Scotland) Act 2006 make owners and keepers responsible for ensuring that the welfare needs of their animals are met.

The role of government is to establish standards of welfare on behalf of society and enforce those standards. Government interventions ensure that priority is given to these standards for the welfare of animals on-farm, during transport, at markets and at slaughter.

Additionally, the independent advisory body the Farm Animal Welfare Council (FAWC) provides advice for Ministers on these issues.

On-farm welfare

Consulting on welfare

In 2008, Defra and the Devolved Administrations (DAs) issued public consultation documents on proposals for Regulations and a code of practice to implement new EU legislation – coming into force in June 2010 – on the welfare of meat chickens.

The EU legislation comprises a package of measures setting the conditions in which birds should be kept, from the time chicks are brought to production sites until they leave for slaughter. It applies to holdings with 500-plus birds, but does not apply to those with only breeding stocks of meat chickens, hatcheries, extensive indoor and free-range chickens or organic chickens. It also contains a training requirement for all those looking after chickens.

The legislation is unique in that, as well as setting the conditions under which meat chickens can be kept, it also measures welfare outcomes and provides for a feedback mechanism between delivery partners and the producer, so helping identify unsatisfactory standards of stockmanship.

Promoting welfare issues

Defra worked with the Agricultural Development Advisory Service (ADAS) during the year to arrange a series of campaigns designed to promote farmers' understanding of welfare issues and help the industry keep up to date with best practice on animal welfare and husbandry. These included:

- poultry: preparing for 2012 – options for caged egg producers
- cattle: lameness and herd mobility scoring
- pigs: health and welfare of finished pigs
- sheep: the welfare of sheep in low-input systems.

Inspecting for welfare

In 2008, Animal Health carried out 10,165 welfare inspections in 4,124 farm visits (2.5 inspections per visit) to check that legislation and welfare codes were being followed. All complaints and allegations of poor welfare on specific farms were treated as a matter of urgency.

Inspections were categorised into those where there was prior reason to believe that animal welfare might be compromised (complaint, targeted, cross-compliance targeted and cross-compliance scored risk visits) and those where no such knowledge existed (programme, elective and cross-compliance random visits). Levels of compliance with animal welfare legislation recorded during inspections in the former category were far lower (74 per cent) than those in the latter category (94 per cent) demonstrating the importance of responding to complaints and targeted information. See Appendix B for more information.



Animal Health veterinary surgeon conducting a welfare visit on an open farm, checking compliance with the legislation and codes of welfare

Welfare in transit

Defra, the DAs, Local Authorities (LA), industry and welfare organisations continued to work together to ensure that legislation on welfare during transport is applied and enforced properly. The European Commission announced that it will review EU Regulation 1/2005 on the welfare of animals during transport. Defra and the DAs provided early comments to the European Commission and are working closely with stakeholders to prepare for the proposals. Expert and wider stakeholder groups will be established in 2009 to consider the European Commission’s proposals.



Pigs being transported

Welfare at slaughter

Defra and the DAs welcomed the European Commission's proposal to review Directive 93/119 on the welfare of animals at slaughter or killing, and to replace it with a Regulation. Defra and the DAs arranged consultative meetings with key stakeholders, and public consultation documents have been issued in England, Wales and Scotland to inform the UK contribution to the development of the Regulation.

Companion animals

Work progressed during the year on secondary legislation and codes of practice under the Animal Welfare Act 2006 and the Animal Health and Welfare (Scotland) Act 2006. Some minor exemptions were introduced to the general prohibition on mutilations contained in both Acts – necessary for essential procedures in breeding, husbandry, conservation and research.

Defra, the Scottish Government and the Welsh Assembly Government issued public consultation documents on draft codes of practice for the welfare of cats, dogs and horses. In Wales, these codes came into effect on 28 November 2008. Scotland introduced the equine code on 29 April.

All the countries have been developing proposals for new legislation and guidance to protect the welfare of racing greyhounds. In addition, they have been progressing work on codes of practice on the rearing of gamebirds and the keeping of non-human primates by hobbyists. In Wales, there was progress on a code of practice relating to rabbits and the development of regulations on electric training devices. There has also been a project looking at the feasibility of bringing in regulations to protect wild animals in travelling circuses.

The Scottish Government introduced Regulations requiring those who deal in puppies and kittens to be licensed by the LA.

In response to attacks by dogs on people, Defra has issued new guidance on dangerous dogs (see www.defra.gov.uk/animalh/welfare/domestic/dogs.htm#using.) This includes general guidance for the public on controlling dogs, as well as more detailed guidance for enforcement authorities on the relevant legislation.

The Welsh Assembly Government overview (see page 10) describes the launch of the Companion Animal Welfare Enhancement Scheme (CAWES) in Wales. This aims to:

- establish an understanding of commercial facilities where pet animals are involved
- develop special projects covering issues such as puppy breeding, equine issues and internet sales
- develop local forums where third-sector representatives could liaise with local and central government and develop agreements
- develop an education strategy aimed at 7- to 11-year-olds, involving LAs and third-sector bodies.

Indications are that the scheme has been widely welcomed, and that for the first time regular and effective two-way dialogue on a broad front has been established between local and central government and third-sector organisations. Close working relationships have been established, helping to resolve issues quickly and work with charitable organisations across the whole of Great Britain, especially on equine issues.

Independent advice

FAWC is an independent advisory council established by government in 1979. In 2008, it issued its report on castration and tail-docking of lambs (see www.fawc.org.uk/pdf/report-080630.pdf), gave advice on the welfare standards for pigs (see www.fawc.org.uk/pdf/letter070708.pdf), and provided opinions on the welfare of farmed gamebirds (see www.fawc.org.uk/pdf/farmed-gamebirds.pdf) and on policy instruments to protect and improve farm animal welfare (see www.fawc.org.uk/pdf/policy-instr-081212.pdf).

Work in progress includes a report on the slaughter of white meat species, an opinion on the welfare of dairy cattle and a long-term strategy for farm animal welfare in Great Britain.

Researching welfare

In 2008/09 Defra spent £2.99 million on research and development projects designed to inform effective policies on animal welfare.

One such project, led by the Scottish Agricultural College (SAC), is currently looking into how a duty of care towards animals can be fostered in young people. This multidisciplinary work has been designed to provide guidance on potential interventions that could bring about long-term changes in attitudes and behaviours.

A team at the University of Newcastle is working on redesigning the farrowing environment of pigs, with the aim of optimising not just economic performance but also the animals' welfare.

Several research projects completed in 2008 have delivered evidence that has been used to underpin policy. One such project, looking into the effects of the application of bits and spectacles on gamebirds, helped inform FAWC's opinion on gamebird farming.

International welfare

As well as contributing to EU negotiations on animal welfare, Defra has been playing an active role on the international stage. In response to growing global interest, Defra worked with non-governmental organisations to mount the International Forum on Global Aspects of Farm Animal Welfare, in April 2008. This considered the role of welfare and trade ahead of the multinational Conference on Global Trade and Farm Animal Welfare, in January 2009, which led to increased backing for the EU's demand that animal welfare be included in World Trade Organisation (WTO) agreements.

During the year Defra worked with the EU and the World Organisation for Animal Health (OIE) to garner support for the universal declaration on animal welfare. We contributed to OIE's Cairo conference on welfare in developing countries, sharing our expertise of killing methods for disease control. Training assistance on welfare at slaughter and transport was also provided to the veterinary services of Croatia and Bulgaria.

At the end of 2008 we implemented the EU's ban on international trade in cat and dog fur, and we took part in discussions on EU proposals for a regulation to ban trade in seal products.

CHAPTER 5: PROTECTING THE INTERESTS OF THE WIDER ECONOMY, ENVIRONMENT AND SOCIETY

Government intervenes in animal health and welfare where the market on its own cannot deliver some or all of its animal health and welfare strategic objectives.

Government carries out global monitoring of animal diseases, assessing the risks of their entering the country and taking appropriate precautions. This is to protect the interests of the wider economy, environment and society. During 2008, current disease threats in Europe included African swine fever, Bluetongue (BTV), classical swine fever, Avian Influenza (AI) H5N1 and H7N7, rabies and swine vesicular disease.

Diseases such as Foot and Mouth Disease (FMD) are highly infectious, and can move rapidly through animal populations. In these cases government works with animal owners to establish measures to prevent, control and eradicate them.

Bovine Tuberculosis (bTB) continues to be a serious problem for the farming industry. Though largely regional – concentrated in the South West and West Midlands in England and in Wales (Scotland has only low levels) – bTB can be disruptive and economically devastating for farmers. It is also a zoonosis.

The government-funded National Scrapie Plan (NSP), including the Ram Genotyping Scheme and the Compulsory Scrapie Flocks Scheme, has had a positive impact on classical scrapie in sheep. Both classical scrapie and atypical scrapie continue to exist at very low levels. Chronic wasting disease (CWD), which is prevalent in North America, has not been detected in deer in the EU.

Benefits through surveillance

Surveillance activities, designed to identify new and emerging threats, are carried out in all the major agricultural species and in horses, companion animals and wildlife. Outputs from surveillance work have a wide range of benefits for society, including informing livestock industries and veterinary surgeons about diseases which impact on animal welfare and productivity.

Highlights of the year

- The reporting of a significant increase in diagnoses of fasciolosis (liver fluke disease), attributed to above average summer temperatures and rainfall in 2007 and 2008, caused economic losses to affected farmers and compromised welfare in some cases. A forecast of a high incidence of fasciolosis was issued, and the potential for continued cases of chronic fasciolosis and subclinical infection are considered likely.
- Anthelmintic resistance to benzimidazoles, levamisole and macrocyclic lactones continued to be identified across the country through surveillance of small ruminants, confirming that parasitic conditions remain a common cause of disease in sheep. Defra supported the Sustainable Control of Parasites in Sheep (SCOPS) industry-led initiative that offers farmers and veterinary surgeons advice on how to combat the growing problem of anthelmintic resistance in the treatment of internal parasites.
- The diagnosis rate for Post-weaning Multi-systemic Wasting Syndrome (PMWS), an important cause of production losses in pigs, was lower in 2008 than in any year since its peak in 2003. The decrease is thought to be associated with the introduction of vaccine against Porcine Circovirus-2. Surveillance continues, along with investigation of unusual outbreaks of PMWS.

- Following the first UK identification of Infectious Bronchitis Virus (IBV) QX strain in East Anglia in 2007, surveillance identified two new cases in backyard flocks. There have been no reports in the commercial poultry population of this virulent strain. Surveillance is continuing, as this disease can cause egg production losses and its spread could have an important economic impact.
- Six episodes of Goose Parvovirus (GPV) infection were identified during the year – the first since 2004. The virus can cause production losses, and at present there is no licensed vaccine available in the UK, so goose producers have been provided with advice on the hazards of certain management practices such as the retention of breeding stock.
- The rate of diagnosis of swine dysentery increased in Great Britain in 2008 compared with the previous year, particularly in East Anglia, where it has been rising since 2004. Swine dysentery can result in production losses and is difficult to control once introduced. Producers in East Anglia have worked together with the Veterinary Laboratories Agency (VLA), the British Pig Executive (BPEX), processors and veterinary surgeons to produce the East Anglia Swine Dysentery Producer Charter, in an effort to control the spread of the disease.
- At the beginning of the year, beef cattle on two farms in South West Wales were found to have psoroptic mange – a disease not seen in Great Britain since 1984. Infection is thought to have come from cattle imported from Europe and purchased in the same local market. In the autumn and winter of 2008 there were cases on five more farms, making a total of seven premises affected – all in South West Wales. The implications for cattle health and welfare, the potential for spread and some doubt over the efficacy of two currently available treatments prompted government action to raise awareness and to investigate options for enhanced surveillance and control.

Investigating unusual events

When an unusual animal health event occurs, investigations are carried out to determine whether it represents an emerging disease or some other issue that could have an impact on public health, animal health and welfare, or the wider economy, environment or society. This year an investigation into an outbreak of unusual neurological disease in a group of post-weaning pigs revealed histopathological evidence of encephalomyelitis of unknown origin.

Thorough investigation identified the causative agent as Porcine Enterovirus A – this virus has previously been associated with reproductive disease and neurological disease in pigs, but little covered in recent literature. Although the investigation has found no reason for concern for human health, continued monitoring of neurological disease in pigs will help determine whether occurrence is increasing.

Guarding against exotic diseases

The aim of Defra's exotic disease programme is to reduce the likelihood and impact of exotic disease outbreaks in the UK. In collaboration with the Devolved Administrations (DAs), its work underpins the formulation of policy and enables responses to outbreaks across the UK. The programme works with the DAs and stakeholders to improve our preparedness such as developing disease control strategies for specific disease threats, while continuously assessing our capacity and capability to respond to a disease outbreak.

The programme is carried out through:

- rigorous risk-based prioritisation
- a visible shift in responsibility to animal keepers
- a robust end-to-end delivery system
- policies and plans that focus on the right risks and stand up to cost-benefit analysis
- an effective and efficient response to outbreaks, with animal keepers and wider industry taking the lead where appropriate.

The programme maintains an overview of the whole spectrum of exotic disease and detects new and emerging threats through surveillance. It ensures that disease control measures can be applied across animal health laboratory and field services (including Animal Health and Local Authorities (LAs)) and develops UK-wide disease control policy in collaboration with Scotland, Wales and Northern Ireland.

The programme coordinates a wide range of activities including surveillance, import/export controls, the publication of guidance on biosecurity, preventative vaccination schemes, cleansing and disinfection, and movement controls. On-farm biosecurity measures also confer some protection against the undetected spread of endemic diseases, and industry continues to apply lessons learned from previous exotic disease outbreaks.

The programme is supported by the work on international disease monitoring and import controls described on page 53.

Research programme

Defra manages a substantial research programme that supports its disease prevention and control policies for both statutory notifiable and other endemic and exotic diseases. The key objectives of the programme, which also relate to new and emerging diseases, are:

- to maintain the essential expertise and infrastructure that enables rapid and accurate detection and diagnosis of exotic diseases. Detailed typing of disease agents is important for epidemiology, tracking outbreaks in real time and choosing vaccines (where appropriate)
- to implement research to provide the evidence base for developing optimal animal disease prevention and control policies in Great Britain; also, to underpin negotiating positions for EU legislation – for example on vaccination strategies, biosecurity and surveillance zones
- to maintain the expertise required to advise Defra on preparing and refining contingency plans and surveillance for diseases in Great Britain, and to provide expertise in implementing those plans in the event of a disease threat or outbreak.

Fighting AI

AI viruses can be classified as either highly pathogenic (able to cause severe disease in susceptible birds) or low pathogenic (generally causing mild disease or none at all). Both the Highly Pathogenic Avian Influenza (HPAI) and the Low Pathogenic Avian Influenza (LPAI) H5 and H7 viruses are statutory notifiable diseases in the UK. The H6 virus type has also been isolated in domestic poultry and wild birds in Europe over the last few years, but to date there is no evidence that this type is highly pathogenic.

Some strains of AI viruses can be transmitted to humans. This usually happens only after a high level of exposure to infected live birds or their excretions. These strains usually cause only mild disease in humans, but the H5N1 strain current in south-east Asia has caused severe disease and some deaths.

Human-to-human spread of avian strains is rare, but very contagious severe strains could emerge through mutation of existing bird strains or by bird strains reassorting with human ones.

Two cases of HPAI were confirmed in England during 2008.

In January, HPAI was found in dead mute swans in the Fleet lagoon, Dorset. Defra and Animal Health worked successfully with VLA, the Health Protection Agency (HPA), Local Authorities (LAs) and a panel of expert ornithologists to manage the incident, protect public health and ensure that the response was proportionate and risk-based. (See panel.)

H5N1: wild birds, Dorset

- HPAI H5N1 identified in wild waterfowl (10 swans, one Canada goose) in January/February 2008 in Fleet coastal lagoon.
- Wild bird control area (WBCA) created.
- 60 apparently healthy mute swans caught and samples tested.
- 100 faecal samples of other waterfowl in the area analysed for signs of virus – all negative.
- 230 premises keeping domestic poultry identified in WBCA – 5,149 birds total.
- 54 premises identified in Wild Bird Monitoring Area.
- Surveillance by Animal Health for signs of disease spreading. Advice provided to local poultry keepers on biosecurity and how to separate stock from wild birds.
- No spread of virus found in wild bird or poultry populations.



The second case was on a free-range poultry unit near Banbury in Oxfordshire in June. Animal Health set up a Local Disease Control Centre (LDCC) in its Reading office and a Forward Operations Base (FOB) at the VLA site in Luddington. Control activities and stakeholder/operational partner liaison was managed from the LDCC, but the field operations and surveillance was run out of the FOB as this was much closer to the affected area. Response (see panel) involved close cooperation between all delivery partners, but in particular between Animal Health, HPA, VLA, the Environment Agency (EA), the LA and the police.



H7N7: poultry, Oxfordshire

- HPAI H7N7 identified on poultry farm near Banbury in June 2008.
- 24,895 free-range birds on premises.
- Surveillance Zone (SZ) and Protection Zone (PZ) established, and animal movement restricted.
- Culling operations over two days.
- Carcasses and eggs disposed of via approved transport and rendering company.
- All premises within the PZ and known to have poultry clinically inspected by Animal Health veterinary officer – no evidence of infection found.
- Premises re-visited every five days.
- 76 tracings of birds/humans/goods that may have been in contact with premises carried out across the country, in areas including Cardiff, Carlisle, Chelmsford, Exeter, Gloucester, Leicester, Lincoln, Reading, Reigate, Stafford, Worcester.



Biosecurity technical staff with humane slaughter equipment

Countering BTV

BTV is caused by a virus spread by midges, which can affect all ruminants such as cattle, sheep, goats, deer and exotic/zoo species. It is globally one of the most economically important diseases of livestock. The disease is difficult to control and eradicate, and control measures such as movements restrictions are potentially economically damaging to the farming industry.

BTV first appeared in Great Britain in September 2007, in East Anglia via windborne transmission of midges. An emergency BTV-8 vaccination plan for England and Wales was formulated in partnership with a Core Group of industry stakeholders (see page 59) and veterinary professionals in December 2007, providing for voluntary vaccination through 2008 and into 2009. Under the plan, Defra purchased 28 million doses of vaccine for use in England – sufficient to immunise all susceptible livestock. Wales took similar action, obtaining 7.5 million doses.



Culicoides midge

No circulating BTV-8 was found in the UK in 2008, despite many thousands of cases in France and other northern European countries. Heightened awareness among farmers in Great Britain led to 458 investigations into suspect cases. Post-import testing reduced the possibility of introduction through import of infected animals, and revealed 12 consignments containing 64 infected animals. One batch contained five BTV-1 infected cattle which were killed as a precautionary measure. Defra reviewed its BTV control strategy in light of this year's experience and published a revised version in December 2008 (available at www.defra.gov.uk/animalh/diseases/notifiable/pdf/bluetongue-control-strategy081201.pdf).

Success through BTV vaccination

BTV vaccine was made available from 30 April 2008, and the PZ was extended step by step as further vaccine consignments were delivered. All of England and Wales became a PZ on 1 September 2008.

The Scottish Government/Industry Stakeholder Group decided to designate Scotland a PZ from 3 November 2008 to implement a compulsory vaccination campaign. Subject to limited exemptions, all adult cattle and sheep were required to be vaccinated by 30 April 2009, thereby ensuring immunity through the high-risk summer months. This position will be continuously reviewed in the light of disease risk and future developments.

The high initial uptake (indicative figures based on sales data) of vaccine in the south east and east of England – over 90 per cent – is thought to have created a buffer zone for the rest of the country. Overall, uptake (indicative figures based on sales data) was around 60 per cent in England and 23 per cent in Wales.

Government is continuing to promote the benefits of vaccination and work closely with the industry-led Joint Action against Bluetongue (JAB) campaign promoting the benefits of vaccination. This is currently headed by the National Farmers' Union (NFU) but includes other national livestock and professional associations.

Defra continues to assess the risk of re-emergence of disease and possible incursion of new serotypes.

Enhanced surveillance for BTV

Congenital brain defects due to *in utero* infection with BTV-8 were diagnosed in Great Britain for the first time this year, in southern England. As part of enhanced surveillance for the disease, all bovine foetuses (and ovine foetuses from November 2008) submitted to VLA for scanning surveillance are now being examined for similar lesions, which may include submission of samples for laboratory testing.

By March 2009, 540 bovine foetuses had been examined as part of this enhanced surveillance, with no further brain lesions specific for BTV detected.

Learning lessons from FMD

Government has accepted all 26 recommendations of Dr Iain Anderson's report into the 2007 FMD outbreak, which include maintaining vigilance, reacting with speed and certainty and respecting local knowledge.

Published in March 2008, Dr Anderson's report found that: 'many of the lessons identified in the 2002 report [following the 2001 FMD outbreak] had been acted upon, and performance, taken as a whole, was much improved'. Although identifying deficiencies that needed to be addressed, Dr Anderson concluded that: 'on balance, the positive easily outweigh[ed] the negative'.

The report is available at www.defra.gov.uk/animalh/diseases/fmd/pdf/anderson-090203.pdf.

Identification and tracing of sheep and goats

The desire to improve the rules on identification and tracing stemmed from the FMD outbreak in 2001. The European Commission proposed new rules to improve EU identification and tracing arrangements so there would be more effective tracking of movements in the event of future animal disease outbreaks. These were introduced by a phased approach under EC Council Regulation 21/2004 in 2003. The final phase was to move to individual animal traceability which requires electronic identification (EID) to read large numbers of animals.

The implementation date for EID and individual reading was originally set at 31 December 2008 but was extended to 31 December 2009.

New system

Defra and the DAs worked closely with their respective sheep industry associations this year to put in place a practical and workable identification system for sheep and goats. This followed the introduction in January 2008 of double tagging of sheep and goats, which replaced the derogation that had allowed the UK to maintain a system of movement tags applied on a batch basis each time sheep moved.

A consistent approach to EID

Defra this year set up a UK EID Project Board, with the objective of achieving a consistent approach to the implementation of electronic identification where possible across the UK.

The Board is liaising with industry and delivery partners through a variety of forums such as the EID Coordination Group to identify workable solutions for introducing EID within the framework of Council Regulation 21/2004, from 31 December 2009.

Jointly with the DAs, Defra worked with the Commission to reduce the implementation burdens, successfully securing several changes to individual recording requirements that will ease the burden for UK industry by around £4.89 million. These include:

- no animals required to be individually recorded on a movement document until 1 January 2011
- no animals born before 31 December 2009 required to be individually recorded on a movement document until 31 December 2011
- no animal born before 31 December 2009 and moving to slaughter (directly or via a market) required to be individually recorded on a movement document.

Work with the European Commission and other Member States to reduce EID implementation costs while maintaining traceability for animal health continued into 2009.

Looking out for Enzootic Bovine Leukosis (EBL)

Bovine tumour samples were submitted for EBL testing on 104 occasions during 2008, and 7,415 serum samples were examined – all were negative.

With Great Britain's most recent confirmed case occurring in 1996, the UK is recognised as officially free of EBL. International recognition of this status means import controls, based on targeted surveillance, can be used to protect the national herd from imported disease.

An average of 20 per cent of dairy herds are randomly selected for EBL testing twice each year, and each selected herd is blood-sampled twice. All slaughtered cattle are also inspected, and further investigation is made into tumour lesions where EBL cannot be ruled out.

Controlling bTB

bTB, caused by Mycobacterium bovis (M. bovis), is one of the most difficult endemic animal health problems the cattle industry faces.

bTB 2008 overview

- £94.7 million spent in 2008 in Great Britain
- Decision taken that the Government's policy would be not to issue any licences to cull badgers for the purpose of preventing the spread of bTB in cattle in England
- £20 million pledged by government for vaccine development over three years
- Joint industry/government bTB Eradication Group for England set up
- TB eradication programme announced in Wales
- TB Health Check Wales, testing all cattle herds in Wales, commenced
- Intention announced to apply for Scotland to be declared officially tuberculosis-free
- Continued increase in the incidence of infected herds and animals in England and Wales.

Provisional year-end statistics show an 18.9 per cent increase in the number of new incidents (herd breakdowns) recorded in Great Britain, compared with 2007. Eighty-five per cent of these occurred in the West of England and in Wales.

Of the 4,986 new incidents, 2,633 (53 per cent) were subsequently confirmed (meaning that demonstrable evidence of *M. bovis* infection was encountered on post-mortem or bacteriological examination of at least one animal slaughtered during the breakdown). The number of new total (47) and confirmed (12) incidents in Scotland fell in comparison with 2007 (65 and 21 respectively).

The majority of Great Britain incidents were detected through the statutory routine skin tuberculin testing surveillance programme paid for by the Government. At least 301 new incidents were first disclosed through statutory pre-movement tuberculin skin testing of individual animals intended for movement between non-restricted holdings in England and Wales. Additionally, a total of 1,153 cattle carcasses with suspect tuberculous lesions were detected by Meat Hygiene Service (MHS) inspectors at commercial slaughter of cattle, of which 828 yielded *M. bovis* on culture, thus contributing to the total number of new breakdowns recorded in the year.

Taking into account the overall number of tuberculin skin tests performed in unrestricted herds (56,583 in 2008, almost unchanged from 2007), this equates to a total herd incidence of 8.8 per cent, compared to 7.4 per cent for the previous year. The herd incidence of breakdowns confirmed by post-mortem examination and culture in 2008 was 4.7 per cent (4.0 per cent for 2007).

Historical annual incidence and charts going back to January 1996 are available at:

<http://statistics.defra.gov.uk/esg/statnot/tbpn.pdf>.

A total of 37,012 cattle were slaughtered as bTB test reactors in 2008, an increase of 42.0 per cent on 2007. Of these, 4,181 were slaughtered following a positive result from an ancillary gamma interferon blood test (Bovigam™). Another 508 were reactors on a dedicated pre-movement tuberculin skin test. The total number of test reactors disclosed represented 0.59 per cent of the 6.31 million animal tests carried out during the year (ie 59 reactors per 10,000 animal tests or one



bTB skin testing

reactor for every 171 cattle tested). Other cattle were removed by Animal Health as direct contacts (2,222) or voluntarily culled as inconclusive reactors by their owners before re-test (739), thus bringing the total number of cattle slaughtered for control reasons to 39,973.

A detailed breakdown of these national statistics by country, region and county is available at www.defra.gov.uk/animalh/tb/stats/latest.htm.

Badgers and TB

Following the publication of the Independent Scientific Group's final report on Cattle TB in 2007, the debate about badgers and their role in bTB in cattle continued. In July, after consideration of the wide range of evidence, the Secretary of State announced that government policy in England would be not to issue licenses to cull badgers to prevent bTB in cattle. The Government remains open to the possibility of revisiting this policy under exceptional circumstances or if new scientific evidence becomes available



The Secretary of State also announced a significant increase in spending on vaccines research for both cattle and badgers by investing £20 million over three years to strengthen the chances of successful development. He also committed to providing additional funding to establish a Badger Vaccine Deployment Project using the injectable badger vaccine bacille Calmet-Guérin (BCG).

Eradication in Wales

In Wales a comprehensive approach to TB eradication has been taken with the establishment of an Eradication Programme. The programme includes several components, for example changes to the TB testing, surveillance and control regime and the setting up of an Intensive Action Pilot Area (IAPA) that will involve a cull of badgers (see page 10).

Eradication in Northern Ireland

In Northern Ireland the NI Minister announced a new phased TB strategy, agreed with stakeholders, to address three key strands together: real partnership between government and industry; controlling the spread of TB between cattle; and addressing the wildlife factor (see page 12).

The bTB Eradication Group for England

In November 2008, the Secretary of State announced the formation of a new bTB Eradication Group for England to make recommendations to the Secretary of State on bTB and its eradication. Membership of the group includes representatives from Defra, Animal Health, the farming industry and the veterinary profession. The Group's priority is to develop an effective and deliverable programme for eradicating bTB in England as well as to contribute to a UK Eradication Plan for submission to the European Commission.

More information on the group is available at www.defra.gov.uk/animalh/tb/partnership/eradication-group/index.htm.

TB surveillance in species other than cattle and badgers

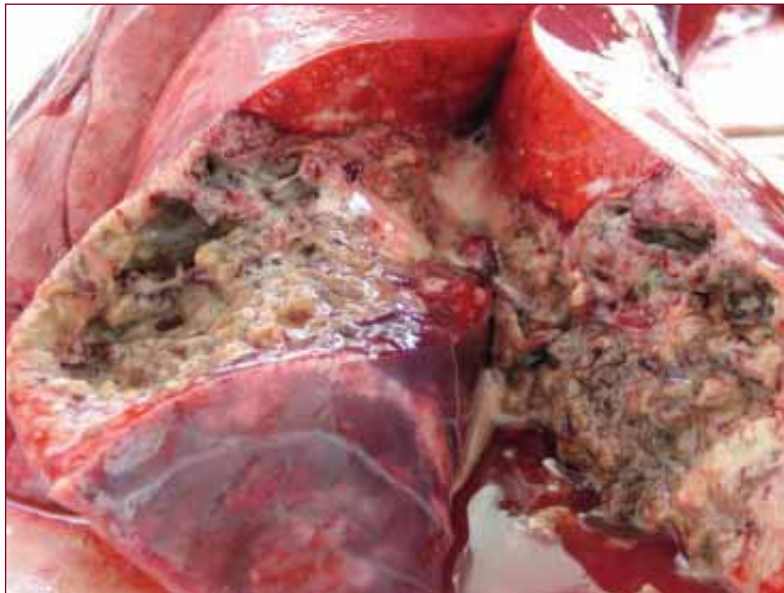
CATS AND DOGS

In 2008, *M. bovis* was identified in 18 of 121 feline tissue submissions referred to the VLA following suspicion of mycobacterial disease. All these culture-positive cases, except one, involved cats kept in regions of England and Wales where TB is endemic in cattle and wildlife. These cats had been infected with the locally-prevalent genotype of *M. bovis*. Other mycobacteria frequently isolated from suspect cats were *M. microti* (28 cases) and *M. avium* (five cases).

Out of 16 suspect cases of canine TB, *M. bovis* was diagnosed in only one dog from Cornwall, whose owner, a former veterinary nurse, had also contracted *M. bovis* pulmonary TB infection.

CAMELIDS

M. bovis infection was diagnosed in 13 alpacas from three different herds in Gloucestershire, two herds in Avon, and one in each of Herefordshire, Worcestershire, Cornwall and Devon. Nine llamas from two herds – one in Devon (seven animals) and one in Carmarthenshire (two animals) – were also diagnosed with the infection.



A section of TB infected lung from an alpaca

PIGS, SHEEP AND GOATS

M. bovis was identified in 10 out of 68 slaughterhouse submissions from domestic pigs, although seven of the positive pigs originated in the same holding. *M. bovis* was also confirmed in one sheep in North Powys.

A total of 33 goats tested positive for *M. bovis* in 2008. Thirty-two of these were Golden Guernsey goats associated with a severe outbreak of caprine TB identified during the summer. The infected goats were disclosed as clinical cases or skin test reactors in 10 separate small holdings in South West Wales and the West of England. The origin of the outbreak was traced to an infected goat herd in South West Wales that had been totally dispersed over the previous month.

DEER

M. bovis was confirmed in 37 of 63 deer carcasses notified either to Animal Health or to VLA. One case originated from a farmed deer population (one of two carcasses), two from park deer populations (two of five carcasses) and 34 from wild deer/undetermined populations (34 of 56 carcasses).

The results of a wild deer density and disease prevalence study were published in November (www.defra.gov.uk/animalh/tb/pdf/deer-survey2008.pdf). Results showed that on public forest estate land in the South West of England bTB is present at a very low level, while in the Cotswolds a higher prevalence was found in two of the three areas sampled, particularly in fallow deer. The results confirmed our current understanding that badgers, not wild deer, generally pose the greater bTB risk to cattle in terms of wildlife transmission. The quantitative risk assessment can be found at www.defra.gov.uk/animalh/tb/pdf/csl-deer-qra2008.pdf.

Research into bTB

Defra manages the research budget on behalf of England, Wales and Scotland. Nearly £7.3 million was spent on 24 research projects related to bTB in 2008. The research portfolio covered a wide range of scientific areas from diagnostics and vaccines to epidemiology, economics and social science.

A key success of the year was gaining sufficient data on the safety and efficacy of injectable BCG in badgers to proceed with the licensing process, and the aim is to have a licensed product for use by June 2010. The £20 million pledged to be invested in the TB vaccines research programme over three years will help enable licensing of the injectable vaccine for use in badgers, and will fund research to further develop oral badger vaccines and investigate ways in which vaccines could most effectively be deployed. In addition, it will enable work to continue on developing a cattle BCG vaccine, the development of discriminatory diagnostic tests and underpin work looking at non-sensitising second-generation vaccines for cattle (see www.defra.gov.uk/animalh/tb/vaccination/index.htm). Five projects were commissioned in 2008 to analyse further data collected during the Randomised Badger Culling Trial (see www.defra.gov.uk/science/). These include research to continue the post-trial monitoring and analysis of incidence of confirmed cattle herd breakdowns in previously culled areas. The majority of these projects are due to be completed in 2010.

The Society for General Microbiology's *Independent Overview of Bovine Tuberculosis Research in the United Kingdom*, published in October 2008, made recommendations on areas of research where new or additional investment could impact on the control effort. These will be considered in the development of Defra's 2010/11 research requirements alongside recommendations made by the bTB Science Advisory Body and its sub-groups, which provide independent expert oversight of Defra-funded bTB research, and identify gaps in the evidence base (see www.defra.gov.uk/animalh/tb/pdf/report-oct2008.pdf).

Continuing inquiry

The Environment, Food and Rural Affairs (EFRA) Select Committee continued an inquiry (started in 2007) into badgers and bTB. The Government issued two responses to their reports in July and September (see http://www.parliament.uk/parliamentary_committees/environment__food_and_rural_affairs/efra_bovine_tb_follow_up.cfm) and the Environment Secretary attended an evidence session in November.

Inconclusive Reactor (IR) re-testing

To support the TB Eradication Group's deliberations on whether to change the IRs re-testing policy in England, epidemiological and cost-benefit analyses were commissioned and completed during the year.

The aim was to assess the implications of changing the existing policy of allowing two re-tests for IRs to only allowing a single re-test – an approach that would more closely match the requirements of European legislation.

Although the Welsh and Scottish governments decided that IRs disclosed in their territories would only be permitted a single re-test, with effect from 1 March 2009, a similar change in policy in England is still being considered.

Gamma interferon blood test

In April 2008 the High Court heard a judicial review against Defra's decision to slaughter (without re-test) one cattle owner's skin test-negative gamma-interferon (g-IFN) test-positive cattle within an infected herd. The court found in favour of Defra; it concluded that the Government's policy and the implementation of that policy was lawful. A review of the g-IFN testing policy was carried out in 2008 with the report published in 2009.

Dutch import restriction

After disclosure of bTB in a batch of exported dairy calves, traced from an infected herd in Worcestershire, the Dutch industry introduced an unofficial ban on live cattle imports from the UK in July (though no official trade restrictions have been imposed). The ban remains in place.

Scrapie and other Transmissible Spongiform Encephalopathies (TSEs)

Scrapie is a notifiable TSE that affects sheep and goats. It is not known to pose a risk to public health. Classical scrapie has been present in the UK for nearly three centuries. Atypical scrapie has been detected in recent years using new diagnostic tests but has been present in the UK since at least 1987.

TSE surveillance

The rates of classical scrapie and atypical scrapie cases detected via targeted surveillance of sheep (fallen sheep plus abattoir cull sheep) in 2008 were 0.03 and 0.05 cases per 100 tests respectively. The number of new cases of classical scrapie detected via scanning surveillance of sheep in 2008 continued to decline. No cases of atypical scrapie were detected through scanning surveillance in 2008. A case of TSE in a goat, killed in 2008, in which Bovine Spongiform Encephalopathy (BSE) could not be excluded, was referred for further investigation (www.defra.gov.uk/vla/science/docs/sci_tse_rl_steg1008.pdf).

TSE controls

- During 2008, new TSE Regulations came into force which, among other things, provided for more flexibility in dealing with atypical scrapie.
- In 2007, the European Court suspended new EU provisions allowing greater flexibility in dealing with flocks and herds affected with classical scrapie, following a case brought by France (Case T-257/07). The UK intervened to support the European Commission. Acting on advice from EFSA, however, the EU reinstated the position in 2008, only for the Court to suspend them again, pending final judgement (expected in 2009) following a further challenge from France.
- In 2008, the EU agreed new controls on TSE infectivity in sheep and goats milk, preventing the use of milk from affected flocks and herds in animal feed, following opinions from EFSA and the French Food Safety Agency. These new controls come into force in 2009.

Chronic wasting disease (CWD)

CWD is a notifiable TSE that affects deer. It is not known to pose a risk to public health. CWD has not been detected in the EU.

TSE surveillance in deer

No cases of TSE were detected in a UK survey of wild and farmed red deer carried out in 2008.

Research into TSEs

Defra continues to fund a large portfolio of research to investigate the nature and diversity of TSEs in the sheep and goat populations in Great Britain.

A large study on two scrapie-affected goat herds was undertaken in 2008. This has provided new information about the distribution of TSE infectivity in goats and on the influence of genetic variation in the prion protein on susceptibility to disease. It has also provided information to farmers on the clinical signs of scrapie in goats.

A new research project was established to determine whether the newer forms of BSE identified in the UK and elsewhere could be transmitted to sheep.

Findings from Defra-funded research on TSEs contribute to several strategic outcomes of the Animal Health and Welfare Strategy (AHWS), including responsibility and cost-sharing. Most of this work is in progress and aims to understand how TSEs originate in livestock, how they are spread and how they are best prevented or controlled.

Defra funds TSE research in consultation with the DAs and other government departments wherever appropriate.



CHAPTER 6: PROMOTING AND SAFEGUARDING INTERNATIONAL TRADE

The presence of animal disease, nationally or internationally, can have severe repercussions for global trade in live animals, their genetic material or products (such as meat).

The outbreak or continuing presence in a country of a high-pathogenicity virus, such as Foot and Mouth Disease (FMD), can have a significant impact on the risk management measures applied to products imported from that country.

Thus, an outbreak of such a pathogen in the UK, as occurred in 2008 with High Pathogenic Avian Influenza (HPAI), can dramatically reduce our ability to export.

2008 Beijing Olympic activities

The UK was selected as one of two countries to act as a hub for the movement of horses from their countries of origin to the 2008 Beijing Olympics and Paralympics equestrian events, which took place in Hong Kong. Defra, in close liaison with delivery partners and stakeholders, coordinated and managed the associated animal health risks.

This involved the supervision of pre-export quarantine premises (from which horses would move to the events); agreement of an export protocol for the events, as well as the negotiation and provision of the required export health certification; and, of course, the return of the horses to their countries of origin after the events. The exercise required the management of movement of horses for nine international teams including Britain, China, Australia, New Zealand and the United States.

The events ran smoothly and successfully, thanks to the dedication of all those involved. As the curtain fell on the 2008 events, preparations began for the 2012 games in the UK, with all parties keen to apply lessons learnt. Representatives from Defra are already linking in with delivery partners, other government departments and stakeholders to ensure preparations are made in good time.

International disease monitoring

Specified exotic animal diseases have a significant impact on the health and welfare of the UK animal population, and some may pose a risk to human health. These diseases also have a significant impact on the UK ability to trade in live animals and animal-related products. An outbreak of one of these diseases may also impact on the reputation of government and the UK farming industry.

For example, the impact of HPAI on the British poultry industry has been very high. For two years (2006–2008) Great Britain suffered a number of Avian Influenza (AI) incursions and related restrictions resulting in a block on export of live poultry and poultry products to many countries outside the EU. While access to some of these markets was achieved during 2008, work continues into 2009 to re-open other lost markets (see below).

With the exception of HPAI the UK remained free of specified exotic disease during 2008. However, elsewhere in EU Member States, non-EU Europe or Third Country trading partners, there were outbreaks. All these diseases are potentially transmissible to the UK animal population in live animals and/or animal products, via various pathways. Therefore all such outbreaks give us cause for concern.

Defra carries out monitoring and produces risk assessments of outbreaks of specified exotic diseases outside the UK that could be introduced to the UK via various pathways. These assessments are used widely by the UK government and beyond, both for reporting the potential risk of disease outbreaks outside the UK that could affect our farming industry, and for providing input into decision- and policy-making. Monthly reports (for internal use) and quarterly reports (published in the *Veterinary Record*) are produced as a matter of course. These reports can lead to domestic/EU action. This may include changes to animal husbandry, increased vigilance on-farm or putting in place risk-mitigating measures such as controls on imports.

For example, an outbreak of Glanders was reported in horses in Brazil in September 2008. Defra published a Preliminary Outbreak Assessment (POA) and, after internal consultation, escalated action to Animal Health to trace and test any horses recently arrived from the immediate region around the outbreak in Brazil. Action was completed one week later and all the horses traced in the UK were declared free of disease.

Imports

Education and communication

The *Annual Review of Controls on Imports of Animal Products: April 2008 – March 2009* highlights the main activities of Defra, Her Majesty's Revenue and Customs (HMRC) and the Food Standards Agency (FSA) in combating illegal imports through active enforcement, understanding the risks and raising public awareness. It is available at www.defra.gov.uk/animalh/illegal/pdf/review0408-0309.pdf.

Early 2008 saw a re-launch of the Black and Minority Ethnic (BME) personal food imports campaign, 'Don't break the law, check the rules before you travel', managed by a specialist publicity agency. This cross-media campaign includes new bilingual leaflets, TV and press adverts and significant outreach activity.

Government sponsored an African restaurant and retail directory in *The Trumpet*, a fortnightly London African communities newspaper with a circulation of 35,000 (10,000 were also distributed through outreach activity). The directory demonstrates that African foods can be legally bought in the UK, and has received very positive feedback.

Defra's website includes a searchable database of products for personal imports and countries – a useful source of information for travellers, which is regularly updated as rules change. As part of the Transformational Government Website Rationalisation, Defra has also this year created two Directgov campaign websites – one targeted at the general travelling public (see www.direct.gov.uk/dontbringmeback) and one that is BME-targeted (see www.direct.gov.uk/foodimports).

A new television TV filler (a public information message on health, safety or welfare, played in donated airtime) was produced to support our cross-government personal imports campaign. In its first three months (July to September 2008) 'Don't bring me back' was aired by 17 different channels with an airtime value of over £50,000, plus £20,000 worth of plays on screens in doctors' surgeries and on Gym TV. It was also awarded the People's Choice award by UTalkMarketing. For the period October to December 2008 the TV filler achieved £146,000 in airtime value – a 165 per cent increase on the previous quarter – with over 6,000 transmissions.

Our previous TV filler, 'I packed my bags', was also adapted for use by other EU Member States.

EU Veterinary Week

EU Veterinary Week (10–16 November 2008) was an excellent opportunity to communicate key messages on biosecurity, both at farm level and in international trade. It was used to highlight ongoing work in our cross-government personal imports campaign at border control points. This included a stand manned by our BME outreach team at Terminal 3 of Heathrow airport, which had over 5,000 visitors and was covered by BBC Breakfast news.

Food and Veterinary Office (FVO) mission

During 2008 there was an FVO mission to the UK to inspect our import controls. This took place in November 2008, with the FVO team visiting several Border Inspection Posts as well as looking at passenger controls at airports. They found no major shortcomings in our controls, though some minor deficiencies were found for which a corrective action plan has been put in place.

New personal import rules

New EU rules covering personal imports of animal products (eg meat, dairy, fish) into the EU came into force on 1 May 2009. There is no change to the ban on imports of meat and dairy products from most countries outside the EU, but some changes to the personal allowances for other animal products.

DELAYED

AFTER A LONG FLIGHT CAN YOU FACE BEING STOPPED?

IT IS AGAINST THE LAW to bring back **MEAT** and **DAIRY** products from outside the EU.

BANS or weight **RESTRICTIONS** also apply to **OTHER FOOD** products.

Illegal products will be **SEIZED**, you will face **DELAYS** and could face **PROSECUTION** or a **FINE**.

DON'T BREAK THE LAW
CHECK THE RULES
BEFORE YOU TRAVEL

Visit the Defra website at:
www.defra.gov.uk

Or call the Defra helpline on:
08459 33 55 77

FOOD STANDARDS AGENCY

HM Revenue & Customs

defra

Posters for the personal food import campaign

تاخیر

آیا حاضرید بهر از دست پرواز هوایی
جلوسان را بگردانند؟

خلایف قانون است که در بازگشت به
بریتانیا هرگونه محصولات گوشتی و یا
نسیجاتی از کشورهای خارج از محدوده
جغرافیایی اتحادیه اروپا با خود بهراه
بیاورید.

سایر محصولات غذایی نیز مشمول
ممنوعیت یا محدودیت وزنی قرار
دارند.

محصولات غذایی که واردات آنها ممنوع
و محدود است گمرک، توقیف و از میان
همی برد. مواجهه با تاخیر می شوید و
اسکان تعقیب قانونی یا جریمه شدن
نیز وجود دارد.

قانون را ن شکنید
قبل از سفر مقررات را بخوانید

دولت تمسب آگاهی های بیشتر این کارگاه را بهیست
www.defra.gov.uk 08459 33 55 77

خط تلفنی راهنمایی: 08459 33 55 77
DEFRA
100 Riverside & Outlook
defra

Exports

Recovery from FMD 2007

1 January 2008 saw the final lifting of all EU-imposed control measures that had been put in place against the UK as a result of the August 2007 FMD outbreak. From this date the UK was once again able to trade on an equal footing with its EU partners in live animals susceptible to FMD, in their genetic material and in their products. The situation with regard to trade with countries outside the EU, however, remains a challenge.

Substantial surveillance data was collected during 2007 as a result of the outbreak. This was collated and submitted to the World Organisation for Animal Health (OIE) on 31 December 2007 to help support the UK's application to regain its official FMD freedom without vaccination status. The UK's evidence was considered favourably by OIE's Scientific Committee. The UK's official freedom from FMD without vaccination was reinstated with effect from 19 February 2008.

The lifting of EU FMD-related restrictions allowed for an immediate resumption of trade with our highly important EU trading partners. The recognition of our FMD-free status by OIE was a significant success, as many countries outside the EU were only willing to trade with us once such official freedom was reinstated. However, it became necessary to renegotiate export health certificates with certain countries, particularly as during the 2007 FMD outbreak the UK also suffered its first cases of Bluetongue (BTV).

We worked with stakeholders via our Export Certification User Groups (ECUGs) (see page 61) to help prioritise resources on regaining lost markets due to the FMD and BTV outbreaks of 2007 and to help make effective use of the budget that the Secretary of State made available in late 2007 for market

recovery. This budget allowed government and industry experts to undertake outward missions to negotiate directly with third country governments on new export health certification, to good effect.

The experiences gained from the ECUGs, as well as the further development of relationships with stakeholders both during and following the 2007 FMD outbreak, allowed consideration of the evolution of ECUGs into a more formal partnership. This development resulted in the creation of the UK Export Certification Partnership (UKECP), launched in October 2008 (see Chapter 7 for more on UKECP).

SUCCESSSES OF ECUG/UKECP SINCE THE 2007 FMD OUTBREAK

Country	Result
Malaysia Nov 08 (visit)	Bovine semen certification agreed (and also negotiated certificates for the non-UKECP commodities day-old chicks and hatching eggs)
Brazil Dec 08 (written correspondence)	Bovine semen and bovine embryos certification agreed – a vital market for UK exporters as Brazil imported 2.9 million doses of semen in 2007
Cambodia Nov 08 (visit)	Breeding pigs certificate agreed, leading to immediate commencement of trade in UK pigs (150 pigs sent by end of 2008, part of a larger order of 600 pigs).

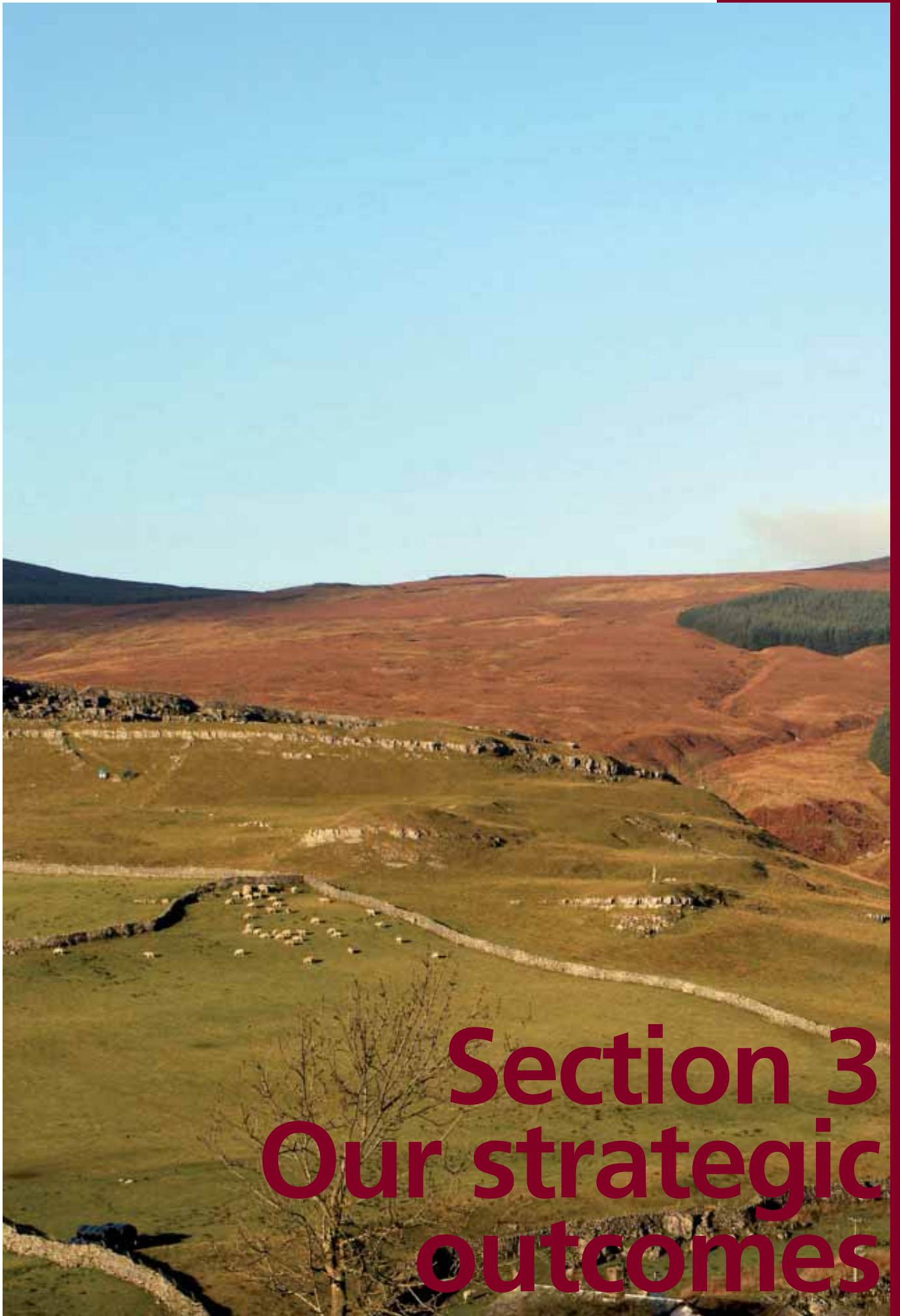
Recovery from AI

Following the outbreak of HPAI in a free-range poultry flock in June 2008 (see page 43). UK exports of high-value poultry breeding stock, along with other poultry products to countries outside the EU, were hindered.

Using the experiences gained from the red meat sector, in June 2008 an ECUG for poultry was set up as an active partnership between poultry industry representatives, government and delivery partners, to help address market access issues. Its purpose is to help government work with industry to re-establish Export Health Certificates with third country trading partners during and after notifiable disease outbreaks; to determine priority markets; and to devise strategies for securing export certification for new and pre-existing third country markets. It meets approximately every six weeks and covers the breeding poultry, hatching eggs and poultry meat industries.

On 20 November 2008, the UK achieved the status of official freedom from AI according to OIE rules. We have supplied a number of third countries with details of our surveillance measures and the epidemiological reports leading to freedom status. The industry has also played its part by opening up communications with official authorities and importers in a number of countries and by obtaining import conditions that have subsequently formed the basis of the necessary export certification.

As a result, by the end of 2008 a range of poultry breeding exports could be exported to Australia, Azerbaijan, Bangladesh, Egypt, India, Indonesia, Kenya, Korea, Malaysia, Mauritius, Morocco, Pakistan, the Philippines, Sri Lanka, Thailand and Uganda. In addition, poultry meat could be sent to South Africa, Namibia, St Vincent and St Lucia. However, other important markets continued to be blocked for UK product. Work will continue into 2009 between government and the poultry sector to help overcome these market access issues via the ECUG forum.



Section 3

Our strategic outcomes

CHAPTER 7: WORKING IN PARTNERSHIP

Effective, strong partnership working is the key theme of Great Britain's Animal Health and Welfare Strategy (AHWS). If we are to learn from the lessons of the past we need to put effective partnership working into the heart of everything we do.

As described in Section 2, government has a key role in helping to ensure the vision set out in the strategy. But good partnership working should involve all parties with an interest in improving animal health and welfare.

Here are a few examples of the progress we are making to establish partnership working principles.

Core Groups

Core Groups were established in England to allow government and stakeholders to reach decisions on animal disease policy and controls by mutual consent and contribute to joint policy development. Members of Core Groups are selected for their knowledge of particular sectors and their standing with wider stakeholder organisations, but not as representatives of particular organisations. It is felt that this way of working provides a valuable basis for further steps on responsibility-sharing between government and stakeholders.

Core Groups have played an important role in strategic policy making and during disease outbreaks such as the Foot and Mouth Disease (FMD) outbreak in 2007. They are not a replacement for wider stakeholder engagement, but they do allow the refinement of policy options in very short timescales when disease situations require more rapid decision making.

Ultimately, decisions are still taken by the CVO and Ministers, but Core Groups provide the ability to give rapid steers on the risks and benefits of different options, and on the acceptability of potential decisions to the wider livestock industry.

In order to equip them to give advice on favoured approaches and responses to disease threats, Defra provides Core Group members with as much information on current situations, expert views and risk assessments as possible. The objective in all cases is to ensure that government makes well-informed decisions that the Core Group is able to endorse and support, and advocate with wider industry.

For example, the Core Group on Bluetongue (BTV) – established in 2006 to help produce a control strategy, before the disease arrived on our shores – has provided invaluable support to the BTV policy-making and delivery process. During the outbreak it provided crucial industry insight to inform decision making, in particular the underwriting of vaccine supply and roll out in 2007.

The group also helped inform proportionate responses to immediate issues such as the importation of infected imported livestock, and to longer-term strategic objectives such as whether or not vaccination should be compulsory. The Core Group also played a crucial role in getting wider industry backing for Defra policy – in particular it led wider stakeholder meetings and drove the industry-led communications Joint Action against Bluetongue (JAB) campaign encouraging farmers to vaccinate against BTV-8 (see page 45).

Administrations in Scotland, Wales and Northern Ireland continue to maintain close working relationships with their key stakeholders, but have not adopted the Core Group model.

However, in September 2008 a Great Britain Pig Industry Core Group met to consider swine fever disease-control strategy.

The TB Advisory Group

England's TB Advisory Group, established in November 2006 in response to a commitment in the 2005 Strategic Framework on bovine Tuberculosis (bTB), continued to meet regularly in 2008, taking on board the views and concerns of interested organisations and helping inform advice to government.

During the year the group advised Defra on badger and cattle vaccines and was represented at the first vaccine stakeholder meeting in April. Proposals for a badger vaccine deployment project were discussed, and the group has continued to work with officials as their thinking has developed. It also initiated work aimed at breaking myths around the disease, and updated Ministers.

The group played a key role in obtaining stakeholder buy-in to bTB control policies, independently challenged government and considered issues of concern to stakeholders while advising on practical implementation of control policies.

The TB Advisory Group worked with Defra policy and veterinary advisers to produce a document (see www.defra.gov.uk/animalh/tb/pdf/tb-facts.pdf), which aims to break myths and misconceptions around the disease. This is designed to be a living document that will be reviewed and updated regularly.

Veterinary Surveillance Strategy (VSS) initiatives

One of the goals of the UK VSS is to strengthen collaboration between organisations conducting surveillance for animal health issues. Here are some examples of the strategy in action in 2008:

- A collaborative project between Defra and the Animal Health Trust (AHT), strongly supported by the BEVA, is now providing scanning surveillance of horses across the UK. Using data from government and private sector laboratories, the project produces quarterly reports that are published on the AHT website and in the *Veterinary Record*.
- Partnership working between Defra, the Scottish Government, the Veterinary Laboratories Agency (VLA) and the Scottish Agricultural College (SAC) gave rise to further integration of livestock surveillance data from across Great Britain in 2008, increasing the sensitivity of detection of new and emerging diseases. Integrated-cattle surveillance reporting started in 2007, but this new initiative enabled similar reporting for small ruminants, pigs and avian species for the first time. Reports have been published monthly in the *Veterinary Record*, and quarterly on the VLA website.
- Analysis of data from the Veterinary Sentinel Network project, carried out in partnership with private veterinary practitioners, VLA and Animal Health, was completed in 2008. The outcome of this pilot study will be reported in 2009.
- Work was completed on a new Wildlife Health Strategy for England, which was published in June 2009 (see www.defra.gov.uk/animalh/diseases/vetsurveillance/species/wildlife/hws.htm). The new strategy captures the aims of the VSS – strengthening collaboration, deriving better value from surveillance information/activities and sharing information more widely – in the field of wildlife health. It sets out actions to further those aims and enhance understanding and knowledge of diseases in wildlife. One of these is the establishment of a Great Britain Surveillance Partnership, including VLA, the Food and Environment Research Agency (FERA) and the Institute of Zoology, to provide a single reference source for wildlife health issues across Great Britain.

More information on these initiatives is available at:

- http://www.defra.gov.uk/vla/reports/rep_surv.htm
- www.sac.ac.uk/consulting/services/s-z/veterinary/publications/gbdiseasereports/
- www.aht.org.uk/equine_disease.html.

The United Kingdom Zoonoses, Animal Diseases and Infections Group

In November 2008 the Surveillance Group on Diseases and Infections of Animals (SGDIA) and the United Kingdom Zoonoses Group (UKZG) were merged into a single committee: the United Kingdom Zoonoses, Animal Diseases and Infections group (UKZADI). This brings together experts from human and animal health fields across the UK to advise the Government on risks and hazards posed to human and animal health from pathogens (including zoonoses).

A website for UKZADI is currently under development, but information about the group's work is at www.defra.gov.uk/animalh/diseases/vetsurveillance/sgdia/index.htm.

Information about UKZG is at www.defra.gov.uk/animalh/diseases/zoonoses/ukzg/index.htm.

The Advisory Committee on Dangerous Pathogens

The Advisory Committee on Dangerous Pathogens advises the Health and Safety Commission, the Health and Safety Executive, Health and Rural Affairs Ministers and their counterparts under devolution in Scotland, Wales and Northern Ireland on all aspects of hazards and risks to workers and others from exposure to pathogens.

Information about the work of this Committee can be found at www.advisorybodies.doh.gov.uk/acdp/index.htm.

The Chemical Hazards Identification and Risk Surveillance Group (CHaIRS)

A new England interdepartmental group, CHaIRS, was established this year, with its inaugural meeting in December. Its aim is improving communications and information management during potential chemical food safety incidents and 'horizon-scanning' new and emerging chemical hazards.

Most of the chemical contamination incidents identified by VLA are managed entirely by the Food Standards Agency (FSA) and Defra, but a few involve other authorities. CHaIRS includes authorities responsible for surveillance and risk management of chemical contaminants potentially present on farms, plus key analytical laboratories. Currently involved in CHaIRS are VLA, FSA, Defra, Animal Health, the Health Protection Agency (HPA), the Environment Agency, the Veterinary Medicines Directorate (VMD), the Health and Safety Laboratory, FERA, the Health and Safety Executive (HSE) and the Pesticides Safety Directorate.

Export Certification User Groups (ECUGs)

During 2008 our ECUGs – joint industry/Departmental working groups – took a significant step forward in partnership working. Industry groups began to take a more active role in coordinating industry needs: making initial enquiries of third country governments on import requirements, preparing draft export health certification and in some instances negotiating directly with third country governments on technical issues relating to export health certification on behalf of the UK.

The UK Rural Affairs Departments have worked closely with livestock sectors for many years to help prioritise both industry and Departmental resources on re-opening key markets outside the European Union. The increasing involvement of industry groups is very positive.

The UK Exports Certification Partnership (UKECP)

In October 2008, UKECP was launched. The partnership is a joint venture between the UK Rural Affairs Departments and the red meat and livestock sectors to:

- expand the resources available to deal with the negotiation and preparation of livestock/livestock product certification
- provide resources to carry out outward missions to explain the UK's animal health status and animal health programmes to non-EU country government officials. The partnership advises on the wording of export health certificates for UK exports and enables industry experts to act as Defra's agents on the Chief Veterinary Officer's behalf
- consult with the relevant UK industry sectors on all necessary draft documentation.

UKECP is a three-year pilot programme from October 2008 to October 2011. The budget for the programme is £400,000, with Defra and industry each providing half of this sum.

Whilst UKECP is primarily focused on the red meat sector, some of its principles are already being introduced into the existing ECUGs. The Poultry ECUG, though only in existence since June 2008, is already actively involved in the preparation of export health certification and associated documentation, greatly helping the recovery of markets following the June 2008 Avian Influenza (AI) outbreak.

Government is continuing to keep UKECP and the ECUGs under review to ensure that they deliver what government and stakeholders require, and achieve best value for money.

CHAPTER 8: PROMOTING THE BENEFITS OF ANIMAL HEALTH AND WELFARE: PREVENTION IS BETTER THAN CURE

The guiding principle behind this strategic aim is that when animals are cared for appropriately, and in accordance with acceptable welfare standards, then they are more likely to be healthy and less likely to contract or spread disease. Increasing the focus on prevention of disease can also provide economic benefits.

Livestock and poultry keepers, private veterinary surgeons and those involved along the food chain, as well as government and its operational partners, all have a vested interest in preventing outbreaks and limiting the spread of diseases. Industry bodies have invested wholehearted effort in supporting and promoting Defra's 'Give disease the boot' campaign.

Furthermore, Defra's encouragement to farmers to employ proactive farm health planning is helping promote a strong prevention culture. So, too, is its implementation of the UK Veterinary Surveillance Strategy (VSS), which aims to target surveillance and control on the most likely threats having the greatest potential to affect human health, animal welfare, the economy, the environment, society and trade.



Farmers get tips and advice on hoof-trimming from an experienced professional

Farm health planning (FHP) in action

Throughout the year Defra has worked with the livestock sector in England to promote FHP, following two years' pump-priming of £2.8 million into industry-led initiatives (which ended in 2008.) These various projects, plus their surrounding publicity, successfully raised awareness of FHP among farmers and veterinary surgeons, provided evidence of its benefits and increased its uptake.

The Scottish Government worked with the European Commission during the year to secure support for FHP-related activities included in the Scottish Rural Development Plan. As a result, animal welfare management programmes launching in 2009 will support eligible livestock-keepers in working with their veterinary surgeons to improve animal health and welfare.

A key strategic development in Wales in 2008 was the inclusion of veterinary FHP provision in the Welsh Rural Development Plan initiative, Farming Connect. Eligible farmers were given advice on implementing FHP or dealing with particular health problems identified through existing FHP. Demonstration farms used FHP to identify topics for open days and knowledge-transfer programmes, and examples of the Welsh Assembly framework plans were distributed to agricultural college course coordinators.

(See FHP case studies in the panel below).

XL Veterinary Surgeons – dairy health

Fewer cases of mastitis, less milk fever, less pneumonia, better fertility, better body condition, better milk yields – these are just some examples of the achievements of the eight dairy farms which took part in the Defra-funded Dairy Health Planning initiatives organised by the veterinary practices group XL Veterinary Surgeons. These dairy and beef projects were all about taking a proactive and ongoing approach to herd health. Independent consultants working closely with the farm’s veterinary surgeon, farmer or herdsman provided disease-testing and advice on nutrition, management and milking routines.

Westmorland Veterinary Group – dairy health

Cumbrian dairy farmers John and Ann Inman benefited from working with a team of specialists to help improve their herd’s health status, most notably by cutting the high number of mastitis cases. Clinical mastitis had been running at 95 per 100 cows, with many repeats, but FHP resulted in a two-thirds fall in cases, down to 29 per 100 cows, and an estimated saving of £6,800. The project was led by Richard Knight of Westmorland Veterinary Group, Cumbria.

Endell Veterinary Group – beef health

Wiltshire producers Bruce and Lucy Waight had been working with the Endell Veterinary Group since 2000 to improve herd health on an ongoing basis. The DEFRA-funded herd health planning project enabled them to increase their focus on health. Now almost 70 per cent of the herd’s suckler cows calve down in four weeks, thanks to improved fertility. And rearing calves all of a similar age in a batch is making management simpler.



Dairy farmer John Inman and veterinary surgeon Richard Knight



Veterinary surgeon Owen Atkinson at an open day where farmers learnt more about types of lameness



Bruce and Lucy Waight and their veterinary surgeon Keith Cutler (right) have worked together to identify and control contagious diseases such as *Campylobacter* and Bovine Viral Diarrhoea (BVD). Bull health screening is now a routine

Pursuing the VSS

Accessible evidence base

A key 2008 initiative for Defra was the Prioritisation Project, which is providing an accessible evidence base that is proving invaluable in the development of animal health and welfare policy.

Live on the Defra intranet since March 2008, the profiles database captures quality-assured evidence that is categorised and scored. An analytical module then calculates a 'score' for each disease's impact (or potential impact for exotic diseases) and its risk, derived from the likelihood of occurrence and existing risk mitigation measures, based on 39 key criteria. This information is processed to produce separate ranked lists for each of the Animal Health and Welfare Strategy (AHWS) reasons for government intervention. Outputs include ranked lists and a summary graph to show comparative ranking, plus a range of reports for each disease.

The Prioritisation Project was further refined during the year to be able to consider 'what if?' scenarios – a function that was effectively used in assessing the likely impact of BTV vaccination on the risk score for this disease (which was reduced substantially).

More information is available at

<http://www.defra.gov.uk/animalh/diseases/vetsurveillance/programme/prioritisation.htm>.

Using Rapid Analysis and Detection of Animal-related Risks (RADAR)

Another important aspect of VSS is ensuring that information about animal populations and the threats of interest is collected and collated in a form that supports surveillance and control. This has been the driver for the further development of the RADAR information management system in 2008.

RADAR collects and collates surveillance data from different sources around the UK, including the Cattle Tracing System (CTS), the Veterinary Laboratories Agency's (VLA's) salmonella dataset, the Animal Movements Licensing System and the English Agricultural Survey. It processes disease data and a range of disease factors in the light of livestock population characteristics and distribution, proving a crucial tool during incursions of exotic disease.

In 2008 RADAR was connected to the Rural Payment Agencies Customer and Land Database and to the National Equine Database (NED).

During 2008, RADAR was used to support the continuing control effort for Bluetongue (BTV) and the Highly Pathogenic Avian Influenza (HPAI) H7N7 in Oxfordshire.

More information is available at:

www.defra.gov.uk/animalh/diseases/vetsurveillance/radar/index.htm.

Companion animals

In 2008 government contributed support to a system of surveillance for diseases affecting companion (pet) animals. The Small Animal Veterinary Surveillance Network (SAVSNET) is a project based at the University of Liverpool deriving disease data from private veterinary laboratories, along with computerised records provided by private veterinary practices. A successful pilot this year has paved the way for disease and syndromic reporting to begin in 2009.

More information is available at: www.liv.ac.uk/SAVSNET.

On-farm biosecurity

Defra ran a campaign in 2008 to persuade farmers to adopt better standards of biosecurity. A single, all encompassing brand – ‘Give disease the boot’ – drove the campaign, and was reflected across communications channels and media including:

- a web portal offering comprehensive guidance and information on animal disease prevention (see www.defra.gov.uk/givediseasetheboot)
- a series of trade press adverts and advertorials in titles ranging from *Farmers Weekly* to *Poultry World*
- online display adverts designed to build the online profile of the portal through a range of online bulletins and trusted websites
- 10 diverse national partners, ranging from Horse and Country TV to feed merchants, to help disseminate messages.



Adopting better standards of biosecurity

CHAPTER 9: ENSURING A CLEARER UNDERSTANDING OF COSTS AND BENEFITS

Understanding the costs and benefits of any government decision is essential for intervention to be implemented effectively. But animal owners need to understand the costs and benefits of their own actions, particularly to inform their decision making.

This strategic aim ensures that government intervention on animal health and welfare issues is underpinned by a strong evidence base, which can involve a combination of sound scientific evidence, risk assessment and economic analysis.

Research and surveillance activities continued to be central to our evidence-based policy making in 2008 (see Appendix A) for our research and development spend for 2008/09).

Sir Iain Anderson's review of the 2007 Foot and Mouth Disease (FMD) outbreak (see page 45) found that government had recognised the need to put science at the heart of decision making with respect to exotic diseases, and that risk assessments are now a routine part of this process.

Policy development for control of exotic disease is also well supported by Expert Groups, which are convened during both business as usual and emergencies to consider specific veterinary and science questions that need more detailed attention.

Sheep Electronic Identification (EID)

An example of economic analysis to support policy decision-making is the cost and benefits of EID and individual recording of sheep (see page 45). The EID impact assessment showed costs were disproportionate for keepers in England. This position was mirrored throughout the UK. However, the presentation of a robust and detailed impact assessment helped the Government obtain some changes at EU level in the proposals for sheep EID.

Quantitative modelling

Quantitative modelling is a valuable tool to support decision making, enabling predictions to be made about the size and extent of disease outbreaks, their likely costs and the resources required to effect their control. Defra has invested significantly in its modelling capability since 2001.

In 2008 we completed an internal strategic review to ensure that good use is made of modelling in the future. This highlighted the cross-discipline nature of current modelling (epidemiology, economics, resources and cost/benefit analysis) and recommended the creation of an 'intelligent customer function' (ICF) within government. ICF would join up the various policy needs from modelling, ensure appropriate data capture and modelling capability and ensure interpretation or translation of modelling outputs to meet policy needs.

Defra has now successfully created ICF, which includes representatives from the three key disciplines (science, economics, finance), working in close conjunction with its delivery partners, including the Veterinary Laboratories Agency (VLA) and Animal Health.

Reinforcing strategic commitment

Defra has progressed with the implementation of the Animal Welfare Delivery Strategy in 2008, further reinforcing the Government's commitment to high standards of animal welfare in England.

In England we have been working with the England Implementation Group (EIG) and the Animal Health and Welfare Strategy Sector Councils to promote awareness of welfare issues. We have also been seeking industry involvement in driving forward improvements and ensuring that the EIG's England Implementation Plan for the strategy reflects our strategic objectives (see page 9).

Abroad, Defra has been active in several international forums, promoting the adoption of good welfare standards wherever possible.

CHAPTER 10: UNDERSTANDING AND ACCEPTING ROLES AND RESPONSIBILITIES

An effective partnership approach depends on clear understanding of the roles and responsibilities of key partners, but particularly of the animal owner.

The following examples illustrate how responsibilities are evolving – both for policy development and for delivery of animal health services.

Sharing responsibilities and costs

UK Consultative Forum

The UK Responsibility and Cost Sharing Consultative Forum – set up to consider ways that government and industry can share the responsibility for and costs of animal health and welfare – made considerable headway in 2008.

Its members, which include Defra, the Devolved Administrations (DAs) and industry bodies, looked at a range of issues including possible structures for responsibility-sharing, potential ways of raising revenue from the industry (including a slaughter levy based on registration and licensing systems) and the appointment of members to the board of an independent body.

The Forum's work was integral to the preparation of a third public consultation on responsibility and cost sharing.

Engaging with industry and the public

During the year we held several meetings with sector-specific industry groups – including beef and dairy, eggs and poultry, sheep and pigs – so that a wide spectrum of industry views could be fed into policy making on responsibility and cost sharing.

There was also consultation with the public, with over 300 livestock keepers, veterinary surgeons, consumers and other individuals attending a national launch event and 12 regional workshops to consider responsibility and costs, along with some specific next steps in relation to Bovine Spongiform Encephalopathy (BSE) and scrapie.

The way ahead

The second half of 2008 saw preparation of consultation on a new governance and funding structure for animal health in England, which was issued in March 2009. Detailed consultation was completed in June 2009, with draft legislation due to be published before the end of 2009.

The European Commission intends to publish formal proposals in 2011 on harmonisation of cost-sharing across the EU as part of its 2007–2013 Animal Health Strategy, and Defra's experience in developing its own domestic proposals will usefully inform its contribution to the process.

Changes to delivery of Transmissible Spongiform Encephalopathy (TSE) controls

In September changes were announced to the delivery of TSE control in Great Britain as part of the wider consultation on responsibility and cost sharing. These were:

- that the free collection and disposal service for fallen adult cattle that required BSE testing would end in mid-January 2009
- that slaughterhouses would need to pay for BSE testing from 1 January 2009

- that private laboratories could apply for approval from the Veterinary Laboratories Agency (VLA) to carry out BSE testing on cattle slaughtered for human consumption from 30 September 2008; laboratories were required to fund the costs of the approval process
- that free farm visits under the Ram Genotyping Scheme would end and the Scheme would close in March 2009
- that the National Sheep Association (NSA) and the Rare Breeds Survival Trust would take over the Semen Archive
- that the Scottish Agricultural College (SAC) would administer a new industry-funded Scrapie Monitoring Scheme allowing keepers to demonstrate compliance with the scrapie requirements for exporting breeding sheep and goats
- that government would not seek to recover £3.8 million from industry as a contribution to the costs of the Meat Hygiene Service (MHS), but would seek to recover initially some £0.2 million in 2009/10.

Defra collaborated closely with the DAs, industry stakeholders and operational partners in the delivery of these changes.

There is more information on sharing costs and responsibilities at:

www.defra.gov.uk/animalh/ahws/sharing/index.htm.

Helping farmers dispose of fallen stock

The Government made £2 million available to farmers through the National Fallen Stock Scheme (NFSS) as a transitional measure for one year, to help with the cost of collection and disposal of fallen adult cattle requiring BSE testing after the previously free collection service ended on 12 January 2009.

Separately, government support for the collection and disposal of fallen stock other than adult cattle came to an end in November 2008. The National Fallen Stock Company (NFSCO), which was set up jointly by government and industry to run the scheme, will be transferred into private ownership during 2009. As part of its preparation for the change, the company transferred its administration and IT services from the Rural Payments Agency (RPA) to a private provider in spring 2008.

Changing roles

The Vets and Vet Services Working Group was formed in 2005 to provide a forum for discussion on the long-term sustainability of farm animal veterinary practice in rural areas.

Prompted by concerns that the number of farm animal veterinarians is declining, the group considered the changing public priorities in Great Britain towards farm animal health and welfare, food safety and public health, and the ability of farm animal veterinarians to respond to these. The group has also considered the effectiveness of governance models delivering the Animal Health and Welfare Strategy and the role of veterinary surgeons and veterinary practices.

The group's Chairman, Professor Philip Lowe, Director of the Rural Economy and Land Use Programme (RELU), has produced a personal report which is bringing a helpful new perspective on these issues. (See <http://www.defra.gov.uk/animalh/ahws/vservices/pdf/lowe-vets090806.pdf>).

CHAPTER 11: DELIVERING AND ENFORCING STANDARDS

The Animal Health and Welfare Strategy also calls for practical, evidence-based information and advice to assist animal owners in maintaining high standards of health and welfare. It also identifies the need for up-to-date, tested contingency plans that enable all emergencies to be dealt with effectively, using an agreed approach.

Defra's Framework Response Plan (see www.defra.gov.uk/animalh/diseases/pdf/framework-response081209.pdf) summarises the Government's arrangements for controlling an outbreak of exotic animal disease in England. It is based on strategic, tactical, and operational command structures and is aligned with established civil emergency response structures at the local and regional level.

The plan is regularly revised, and is subject to public consultation prior to being laid before parliament every year. There are similar plans for Scotland and Wales and a shared recognition among Great Britain authorities of the importance for close coordination.

The Framework Response Plan forms part of a wider set of disease prevention activities. This includes surveillance of animal disease, preventing illegal import of infected meat into this country, improved biosecurity in farms and markets, and general education and awareness in the farming and rural community of measures that can improve farm health and reduce the risk of disease.

Preparing for exotic outbreaks

Animal Health works closely with the Chief Veterinary Officers and policy makers responsible for planning the response to an outbreak of exotic animal disease, to ensure that disease control strategies can be delivered. Qualitative Risk Assessments for known disease threats are also produced, and these inform the response plans and levels of preparedness of Animal Health and other delivery bodies. Avian Influenza (AI) and Bluetongue (BTV) have dominated assessments in the past year, but it is recognised that the risk of other notifiable diseases and new and emerging diseases is ever present.

Animal Health played a key role in Exercise Cedar, a Great Britain-wide initiative mounted in June 2008. In the event it was possible to reduce this classical swine fever tabletop exercise down from the full-scale, real-time version, as Defra had already executed contingency plans during 2007 and 2008 in a number of genuine outbreaks and incidents.

Several smaller exercises were also undertaken to test various elements of preparedness. A National Disease Control Centre exercise in December 2008 included a simulation of an AI outbreak designed to test the amber teleconference response and the establishment of a 'birdtable' meeting. It also included a strategic stocktake, a Cabinet Office Briefing Room prebrief and a daily communications meeting. Each Animal Health office carried out at least one local exercise as part of the agency's national programme to examine disease scenarios, test local contingency plans and make sure that local operational partners and industry representatives were fully involved.

As recommended by Sir Iain Anderson in his report on the 2007 Foot and Mouth Disease (FMD) outbreak (see page 45), these exercises are now testing the entire response chain, including emergency contracts.

Working with Local Authorities (LAs)

Our partnership with the Local Authorities Coordinators of Regulatory Services (LACORS) and with LAs themselves continued to flourish in 2008, with the introduction of a National Indicator for council work relating to animal health and the development of a revised National Animal Health and Welfare Framework.

Direct funding

Direct funding from Defra (to LAs in England and Wales) of post-FMD additional LA costs has been in operation since the 2001 outbreak of FMD. It was developed during the disease outbreak as a means of funding additional costs incurred by LAs in reaching the minimum or otherwise agreed delivery standards of the Framework Agreement. The direct funding is administered in accordance with detailed finance guidance and is managed through the Framework Agreement approach.

Operational delivery in Wales

Chaired by the Welsh arm of Animal Health, the Operational Delivery Partners Forum (Wales) (ODPF) meets quarterly and includes representatives from the Welsh Assembly Government, the Food Standards Agency (Wales), the Welsh Local Government Association (WLGA), the Meat Hygiene Service (MHS), LAs, Rural Inspectorate Wales, the British Cattle Movement Service (BCMS), the Welsh Food Fraud Unit, the Health and Safety Executive (HSE), the Egg Marketing Board and Dairy Hygiene.

The ODPF facilitates effective communication between those with responsibility for enforcement of animal health and welfare in Wales. It provides an opportunity to exchange views, identify areas of common concern in relation to operational issues, and provides effective solutions to operational difficulties.



Appendices

Appendix A: Supporting tables

Figure 1: The estimated prevalence of BSE (number infected per million cattle births) in successive birth cohorts (born from 1 July 1996 to 30 June 2003) in Great Britain and Northern Ireland. The bars represent the uncertainty in the prevalence [Data as at July 2008]

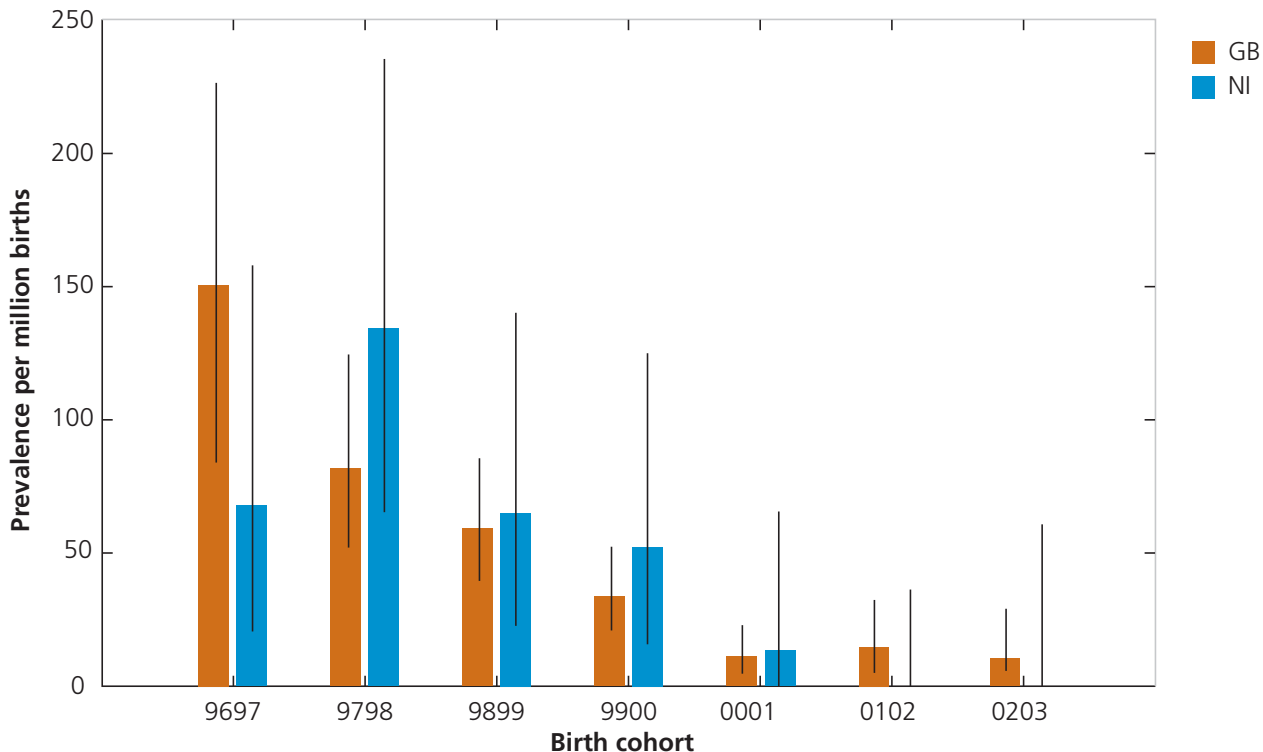


Figure 2: Avian Influenza H7N7: poultry, Oxfordshire – mortality and egg production in each shed (except shed 4, only deaths shown)

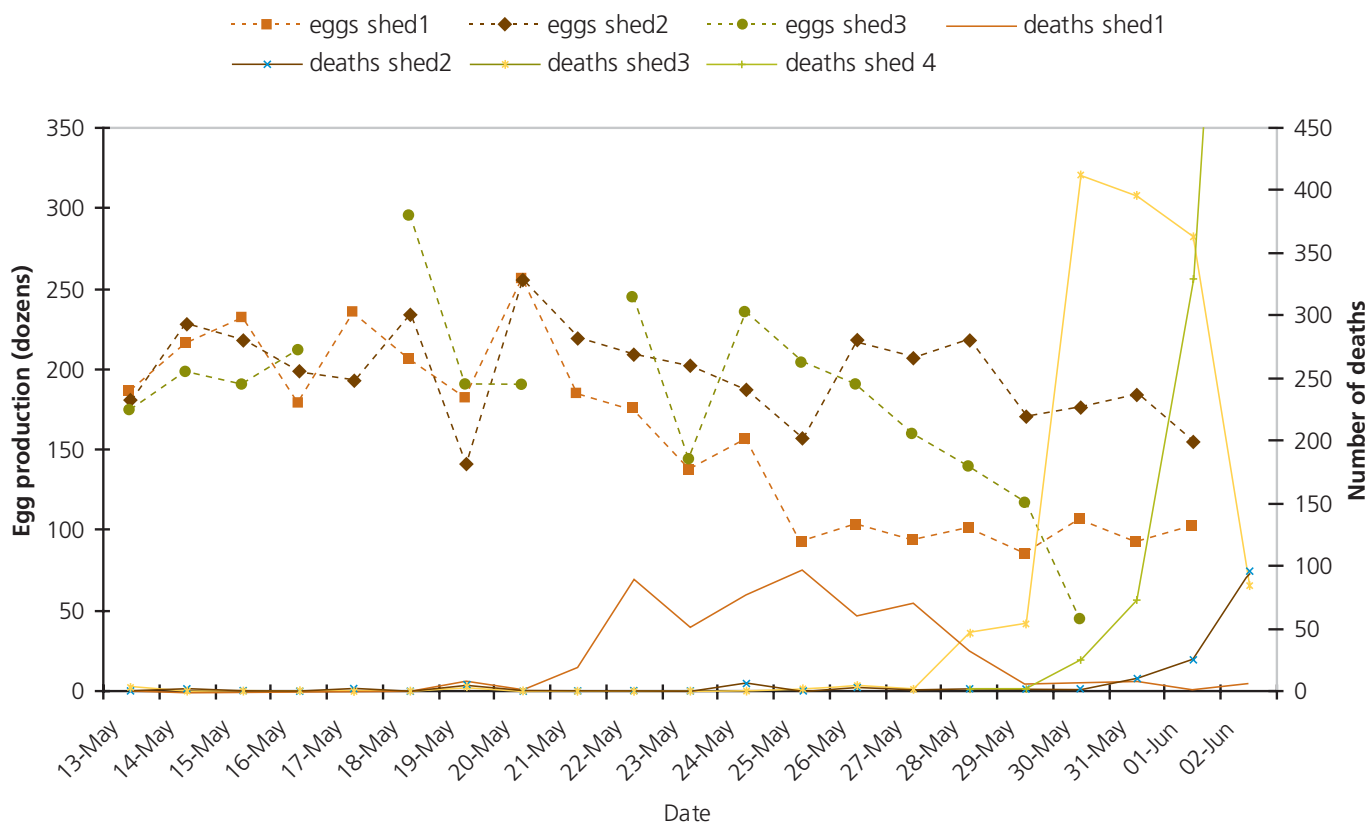


Figure 3: Number of new confirmed and unconfirmed TB incidents disclosed annually in Great Britain since 1994

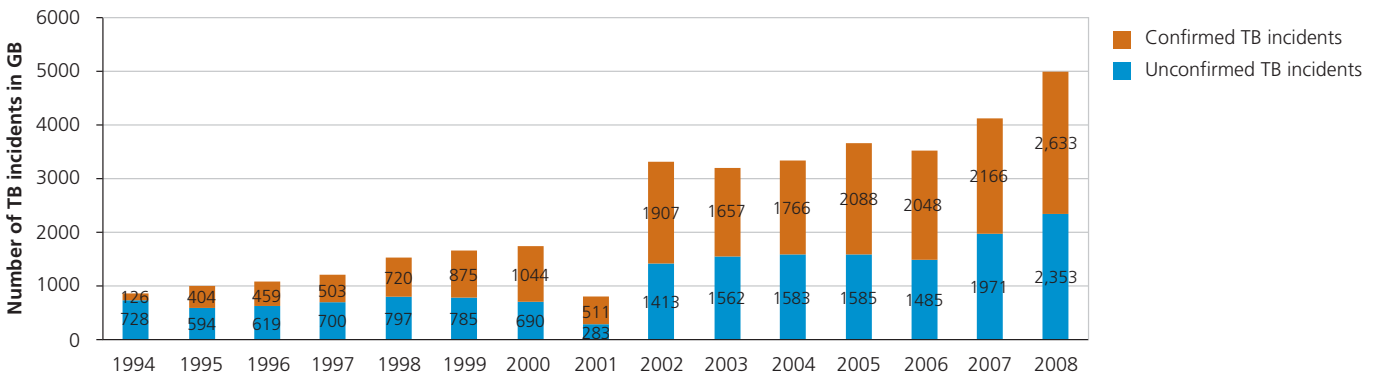
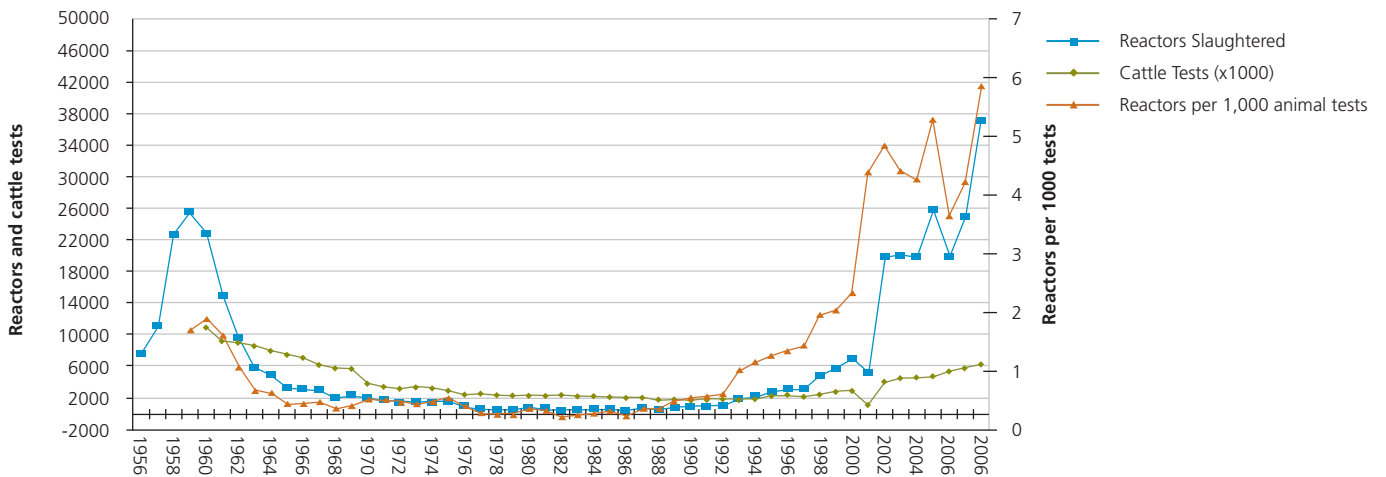


Figure 4: Number of tuberculin skin tests in cattle, and reactors and rate of reactors per 1,000 tests disclosed annually in Great Britain (figures exclude gamma interferon test reactors, direct contacts and slaughterhouse cases^{1 2})



¹ TB testing was markedly reduced to the FMD outbreak in 2001

² Some variation in the number of test reactors disclosed in recent years may have been due to the introduction of new policies and changes in the definition of reactors

Figure 5: Headline bovine TB statistics for Great Britain in 2008, compared with the equivalent figures for 2007¹

	2007	2008	Change 07–08
Registered cattle herds (year-end)	86,658	85,585	-1.2%
Total cattle herds tested ²	51,310	53,766	4.8%
Tests on unrestricted herds (including pre-movement tests) ³	56,667 (91,969)	56,583 (92,340)	-0.1% (-0.4%)
New TB herd incidents (breakdowns)	4,193	4,986	18.9%
Herd incidence of new TB breakdowns (including pre-movement tests)	7.4% (4.6%)	8.8% (5.4%)	19.1% (17.4%)
New confirmed TB herd incidents ⁴	2,283	2,633	15.3%
Herd incidence of confirmed new TB breakdowns (including pre-movement tests)	4.0% (2.5%)	4.7% (2.9%)	13.87% (14.9%)
Total cattle tested with the tuberculin skin test ⁵	5.84m	6.31m	7.5%
Total cattle samples tested with the gamma interferon blood test ^{6 & 7}	30,644	22,344	-27.1%
Total test reactors identified (of which were gamma interferon reactors)	26,057 (2,773)	37,012 (4,181)	41.8% (50.8%)
Reactors per 1,000 skin tests	4.4	5.9	34.1%
Other cattle slaughtered (DCs and IRs)	2,135	2,961	38.7%
Apparent prevalence at year end (herds under restrictions due to a TB incident, excluding herds with overdue tests ⁷)	3.6%	2.9%	-19.4%
Per centage of cattle herds officially TB free at year end (remainder includes herds with overdue tests)	91.0%	91.1%	0.1%
Bovine carcasses reported with suspect TB lesions at routine slaughter (individual slaughterhouse cases)	962	1153	19.8%
Proportion of individual slaughterhouse cases that yielded a positive culture for <i>M. Bovis</i>	65.5%	71.8%	11.0%

¹ All figures are provisional and subject to minor revisions as more data become available (data downloaded 3 March 2009)

² Herd TB tests, includes tuberculin and gamma interferon tests

³ Whole herd and other tests (includes partial herd tests and tests on individual animals within the herd, eg inconclusive reactors, tracings). Includes tuberculin and gamma interferon tests

⁴ A number of incidents were still unclassified (ie unconfirmed but awaiting some culture results) when this report was produced

^{5 & 6} Total number of cattle tested is less than the total number of tests carried out on individual animals (some animals will have been skin tested more than once or may have had more than one blood sample taken for gamma interferon testing)

⁷ Overdue test data 2008 was estimated from TB Data Warehouse downloads from 1 Dec 2008, 6 Jan 2009 and 5 Feb 2009. This may have resulted in a decrease in apparent prevalence at year end (herds under restrictions due to a TB incident, excluding herds with overdue tests)

Figure 6: Rates of classical scrapie and atypical scrapie (number of cases per 100 tests) detected in Great Britain through targeted surveillance of fallen sheep and abattoir cull sheep aged over 18 months, from 2002 to 2008

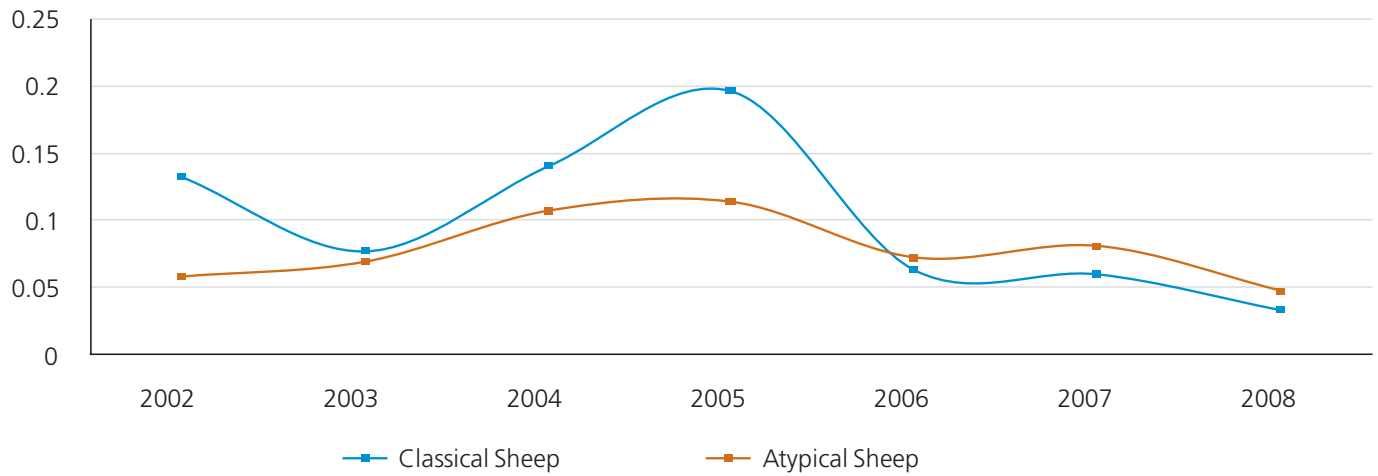


Figure 7: Annual incidence of classical scrapie detected in Great Britain through scanning surveillance of sheep, from 2002 to 2008

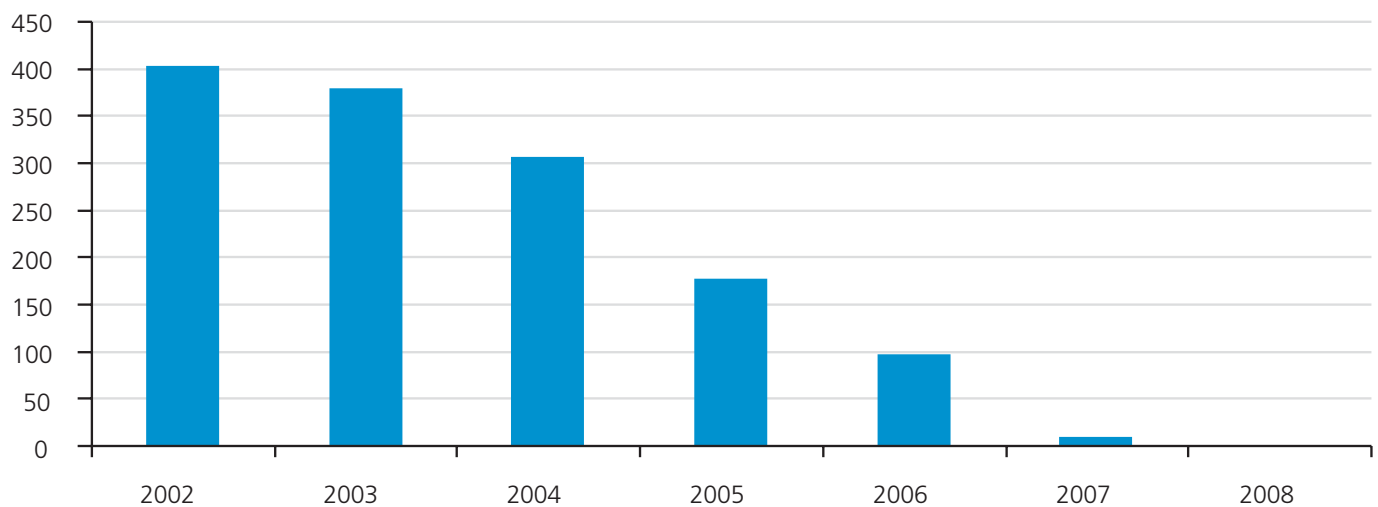


Figure 8 : Funding levels for research programmes for the financial year 2008/09

Veterinary Science Programme	Includes research on	Allocation for 2008/09 (£'000s)
Statutory and exotic diseases	Bovine Tuberculosis	5,600
	Foot and Mouth Disease	2,900
	Swine fever	725
	Rabies (and related viruses)	600
	Brucellosis	310
	Influenza and Newcastle disease	955
	New and emerging diseases	285
	Bluetongue (and related viruses)	635
	Others	1,445
Veterinary Training and Research Initiative (VTRI)		1,665
Zoonoses	Salmonellosis	1,317
	Campylobacteriosis	775
	Others	160
Endemic diseases and alternatives to pharmaceutical control	Bovine mastitis	83
	Non-statutory viral disease	948
	Non-statutory parasitic disease	653
	Antimicrobial resistance	700
	Others	167
Transmissible Spongiform Encephalopathies (TSEs)	Sheep TSEs	7,200
	Diagnostics	1,710
	BSE and animal by-products	1,280
Veterinary medicine	Veterinary medicine	1,597
Animal welfare	On-farm	1,600
	Slaughter	390
	Transport	800
	Others	200
Fish health		300
Total		35,000

Appendix B: Animal welfare

The detailed results of welfare inspections (which consist of up to 11 assessment criteria) are summarised below to depict results for different enterprises and the different welfare assessment criteria¹. Figures 1 and 3 show the results of inspections conducted where there was reason to believe that animal welfare might be compromised, and figures 2 and 4 show the results of the remaining inspections.

Numbers above each column represent the total number of assessments made.

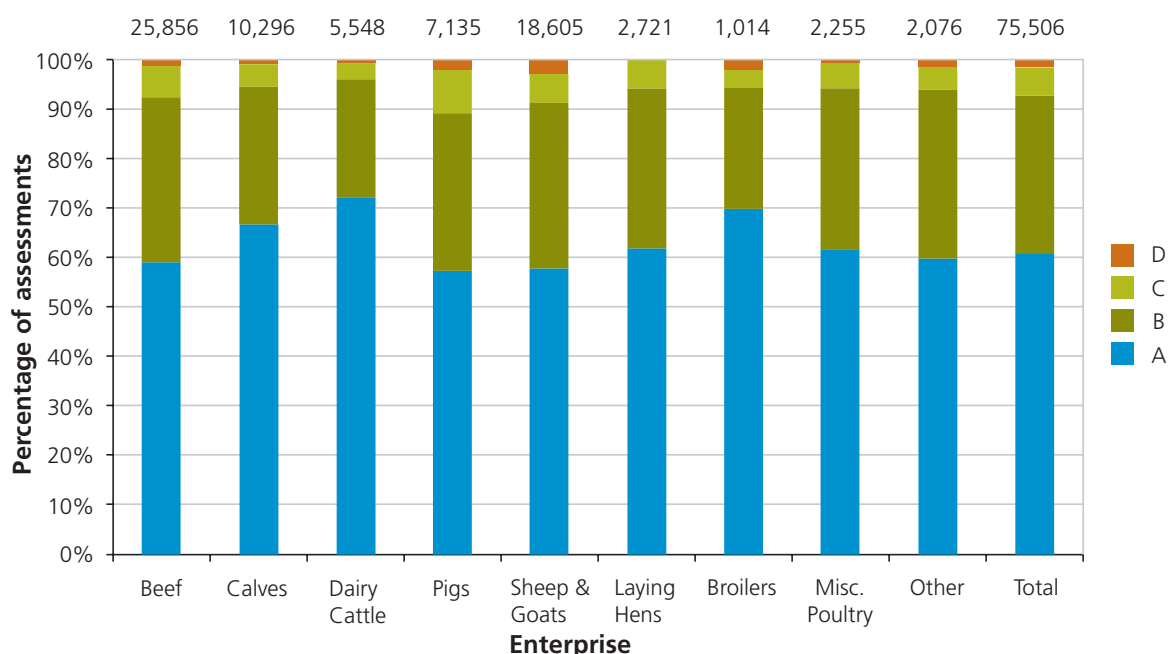
A = Full compliance with legislation and code

B = Compliance with legislation

C = Non-compliance with legislation but no unnecessary suffering

D = Unnecessary pain, unnecessary distress

Figure 1: Assessments of the welfare of animals on-farm in Great Britain during complaint, targeted, cross-compliance targeted and cross-compliance scored risk visits – enterprise (2008)



¹ Note that compliance levels based on welfare assessments (as shown in figures 1 to 4) are not strictly equivalent to compliance levels based on inspection numbers because an inspection takes the worst score recorded for any assessment; hence a score of D would be counted once when calculating inspection compliance levels, regardless of how many D scores were recorded during the inspection

Figure 2: Assessments of the welfare of animals on-farm in Great Britain during programme, elective and cross-compliance random visits – enterprise (2008)

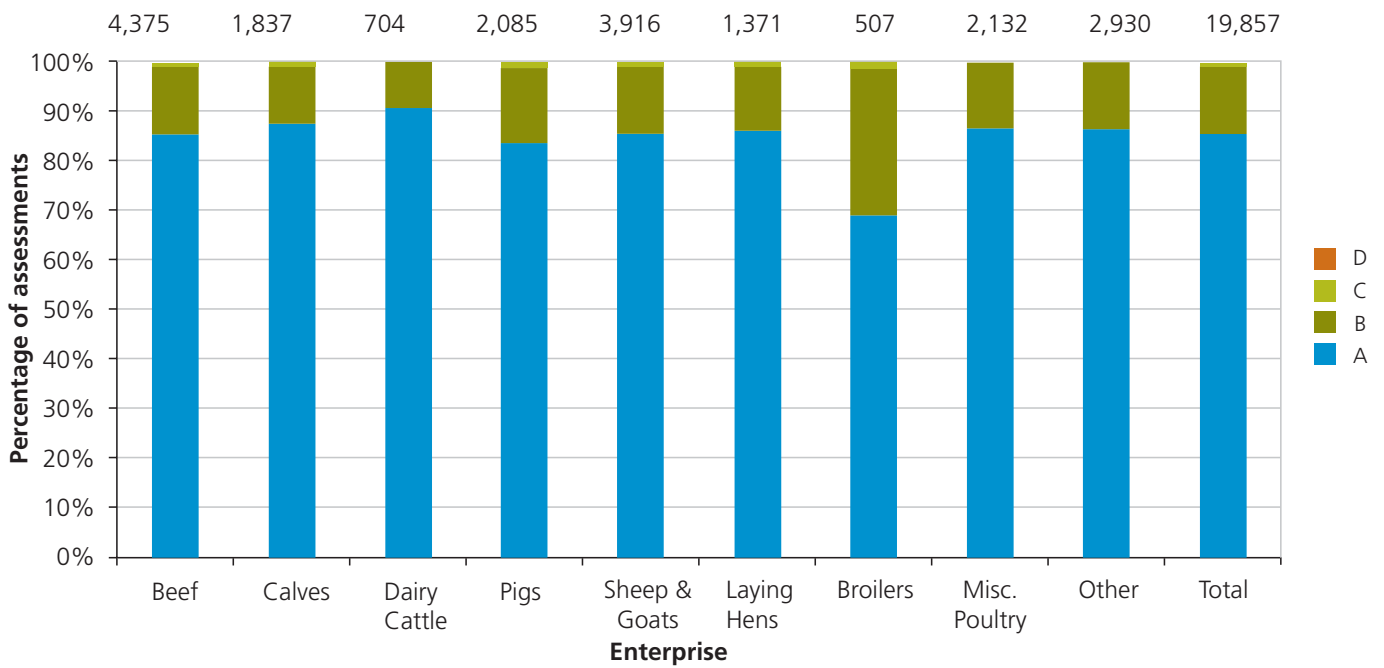


Figure 3: Assessments of the welfare of animals on-farm in Great Britain during complaint, targeted, cross-compliance targeted and cross-compliance scored risk visits – criteria (2008)

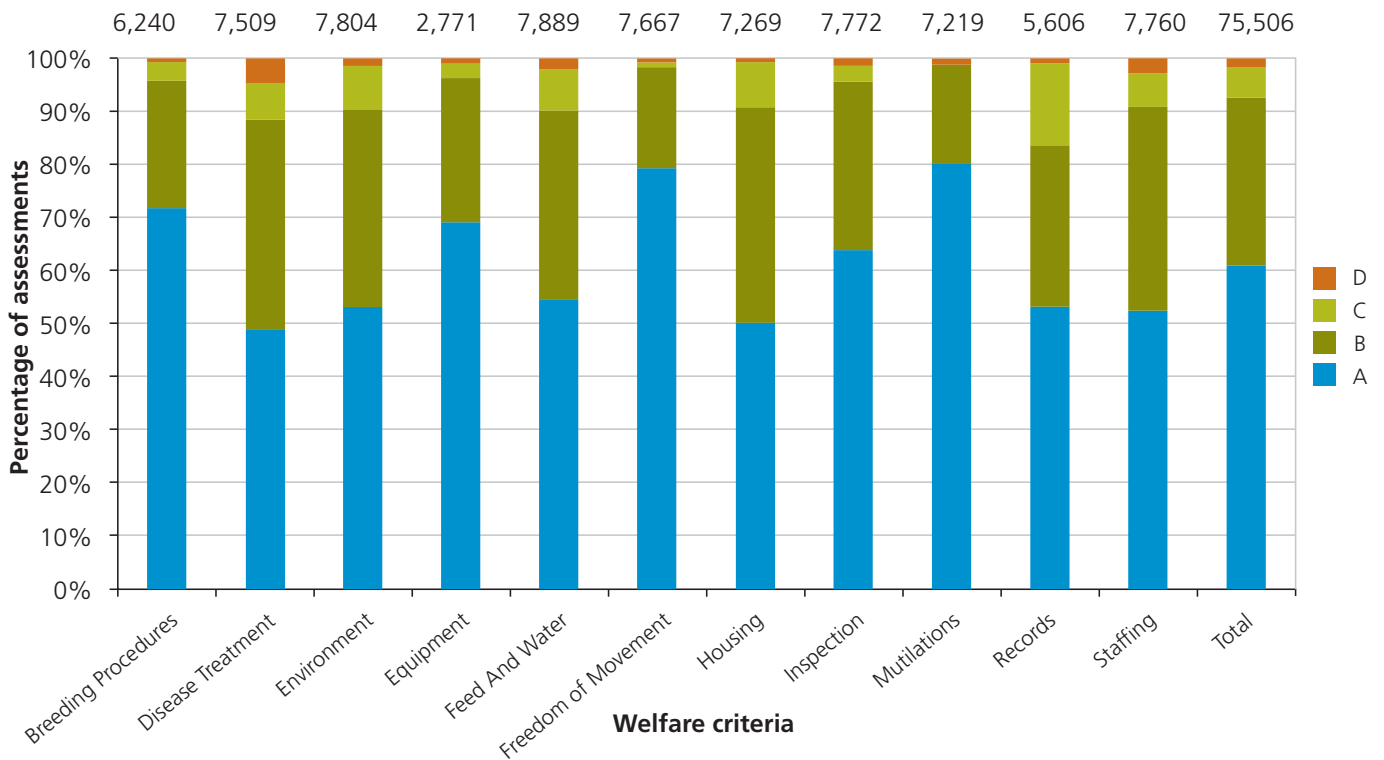
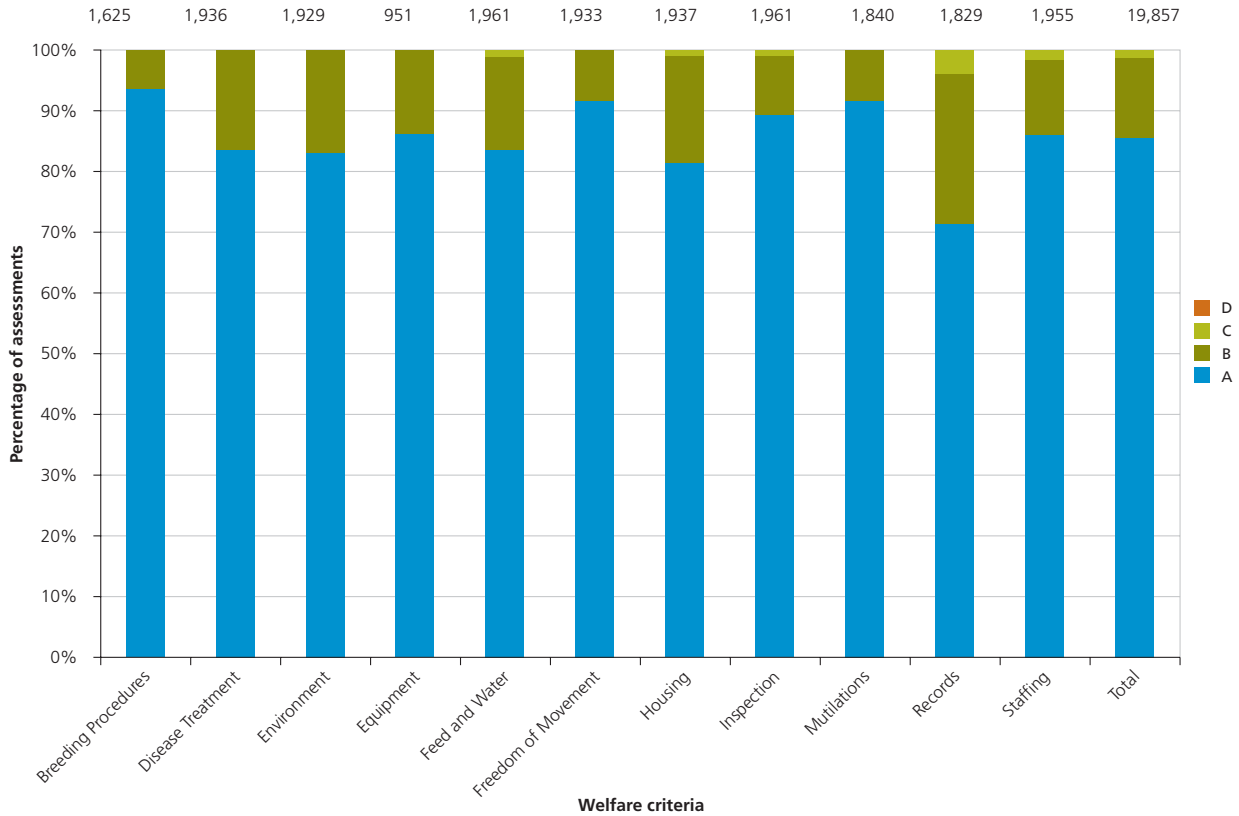


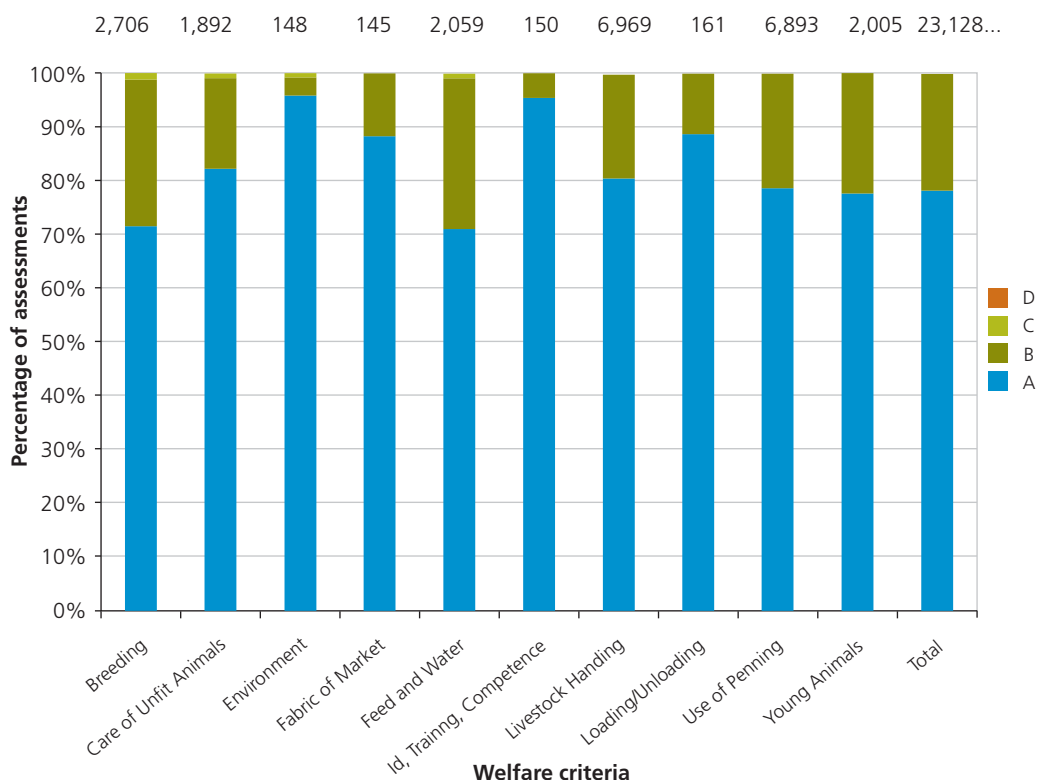
Figure 4: Assessments of the welfare of animals on-farm in Great Britain during programme, elective and cross-compliance random visits – criteria (2008)



Markets

In 2008, AH carried out 7,087 welfare inspections at 2,819 visits (2.5 inspections per visit) at markets. Full compliance with animal welfare legislation was recorded during 99 per cent of inspections. A summary of the findings is shown in figure 5.

Figure 5: Assessments of the welfare of animals at markets in Great Britain (2008)



Appendix C: Abbreviations and acronyms

A

ABP	Animal By-Products
ADAS	Agricultural Development Advisory Service
AHT	Animal Health Trust
AHWS	Animal Health and Welfare Strategy
AI	Avian Influenza
AIWBS	Avian Influenza Wild Bird Surveillance
APHIS	Animal and Public Health Information System

B

BCG	bacille Calmet-Guérin
BCMS	British Cattle Movement Service
BCVA	British Cattle Veterinary Association
BEF	British Equine Federation
BEVA	British Equine Veterinary Association
BKD	Bacterial Kidney Disease
BME	Black and Minority Ethnic
BPEX	British Pig Executive
BSE	Bovine Spongiform Encephalopathy
BTV	Bluetongue
bTB	Bovine Tuberculosis
BVD	Bovine Viral Diarrhoea

C

CAWES	Companion Animal Welfare Enhancement Scheme
CEFAS	Centre for Environment, Fisheries and Aquaculture Science
CERA	Centre for Epidemiology and Risk Analysis
CoE	Council of Europe
CSA	Chief Scientific Advisor
CTS	Cattle Tracing System
CVO	Chief Veterinary Officer
CWD	Chronic Wasting Disease

D

DAs	Devolved Administrations
DARC	Defra's Antimicrobial Resistance Coordination group
DARD	Department of Agriculture and Rural Development
Defra	Department for Environment, Food and Rural Affairs

E

EA	Environment Agency
EBL	Enzootic Bovine Leukosis
EBLV	European Bat Lyssavirus
EC	European Commission
ECUG	Export Certification User Group
EFRA	Environment, Food and Rural Affairs
EFSA	European Food Safety Authority
EHC	Export Health Certificate
EID	Electronic Identification
EIG	England Implementation Group
ELISA	Enzyme Linked Immunosorbent Assay
EU	European Union

F

FAWC	Farm Animal Welfare Council
FERA	Food and Environment Research Agency
FHI	Fish Health Inspectorate
FHP	Farm Health Planning
FMD	Foot and Mouth Disease
FOB	Forward Operations Base
FRS	Fisheries Research Services
FSA	Food Standards Agency
FVO	Food and Veterinary Office

G

GB	Great Britain
g-IFN	Gamma interferon blood test
GPV	Goose parvovirus
GVS	Government Veterinary Surgeons

H

HAIRS	Human Animal Infections Risk Surveillance
HSE	Health and Safety Executive
HMRC	Her Majesty's Revenue and Customs
HPA	Health Protection Agency
HPAI	Highly Pathogenic Avian Influenza

I

IAH	Institute for Animal Health
IAPA	Intensive Action Pilot Area
IBV	Infectious Bronchitis Virus
IDMU	International Disease Monitoring Unit
IP	Infected Premises
IR	Inconclusive Reactor
ISG	Independent Scientific Group

J

JAB	Joint Action against Bluetongue
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L

LA	Local Authority
LACORS	Local Authorities Coordinators of Regulatory Services
LDCC	Local Disease Control Centre
LPAI	Low Pathogenic Avian Influenza

M

MHS	Meat Hygiene Service
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N

NCP	National Control Programme
NED	National Equine Database
NFSco	National Fallen Stock Company
NFSS	National Fallen Stock Scheme
NFU	National Farmers' Union
NFU (C)	National Farmers' Union Cymru
NFU (S)	National Farmers' Union Scotland
NSA	National Sheep Association
NSP	National Scrapie Plan

O

OCDS	Older Cattle Disposal Scheme
OIE	World Organisation for Animal Health

P

PCR	Polymerase Chain Reaction
PMWS	Post-weaning Multi-systemic Wasting Syndrome
POA	Preliminary Outbreak Assessment
PSA	Public Service Agreement
PZ	Protection Zone

R

RADAR	Rapid Analysis and Detection of Animal-related Risks
RCVS	Royal College of Veterinary Surgeons
RDP	Rural Development Programme
RMS	Red mark syndrome
RPA	Rural Payments Agency

S

SAC	Scottish Agricultural College
SAVSNET	Small Animal Veterinary Surveillance Network
SCOPS	Sustainable Control of Parasites in Sheep
SEAC	Spongiform Encephalopathy Advisory Committee
SGDIA	Surveillance Group on Diseases and Infections of Animals
SLA	Service Level Agreements
SRM	Specified Risk Material
SZ	Surveillance Zone

T

TSE	Transmissible Spongiform Encephalopathy
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U

UK	United Kingdom
UKAS	United Kingdom Accreditation Service
UKECP	UK Exports Certification Partnership
UKZADI	United Kingdom Zoonoses, Animal Diseases and Infections Group
UKZG	United Kingdom Zoonoses Group

V

vCJD	variant Creutzfeldt-Jakob Disease
VHS	Viral Haemorrhagic Septicaemia
VLA	Veterinary Laboratories Agency
VMD	Veterinary Medicines Directorate
VSS	Veterinary Surveillance Strategy

W

WBCA	Wild bird control area
WHO	World Health Organisation
WTO	World Trade Organisation

Z

ZAP	Zoonoses Action Plan
ZNCP	Zoonoses National Control Programme for <i>Salmonella</i> in pigs

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