whole of England to become officially bTB free (OTF) by 2038, and for large parts of the north and east of England to achieve OTF status by 2025, or sooner (for a member state to be considered officially bTB free, the annual incidence of herds with confirmed *M. bovis* infection must not have exceeded 0.1% and at least 99.9% of the herds within it must have been free from bTB at the end of the year for at least six consecutive years).

Government proposes three key actions for achieving OTF status:

• "establishing three bovine tuberculosis (bTB) management regions or zones (a High Risk Area, a Low Risk Area and a buffer zone (Edge Area) in between);

• applying a range of measures to control the disease within these zones that is practical and proportionate to the disease risk while maintaining an economically sustainable livestock industry;

• ensuring that there is shared governance of the delivery process between the main beneficiaries including the food and farming industry and the taxpayer".

The Report gives a background of bTB, discusses the rationale for intervention and explains the risk-based approach which is to be utilised for dealing with the disease. Existing measures already in use against bTB within the three management regions are outlined under four main headings: surveillance (find infection early); breakdown management (reduce risk of spread of infection — eliminate infection quickly); dealing with risk of TB from badgers (reduce risk of badger-to-cattle and cattle-to-badger infection); and other disease prevention (reduce risk of infection spread).

Other control methods which may be more widely applied are also expanded upon, including: i) Biosecurity (risk-based trading, on-farm and off-farm biosecurity and using compensation to encourage risk-reduction); ii) improving advice and guidance to farmers; iii) improving compliance and enforcement; and iv) tackling TB in non-bovine species.

Significant funds (approximately £155 million since 1991/92) have been invested into a bTB research programme to further understand the disease and to develop new tools to tackle bTB. In the Strategy, emphasis is placed on current research into developing new diagnostic tests for surveillance (to detect bTB in both cattle and badgers) and also on developing a deployable bTB vaccine (for cattle and badgers). Other areas of future research include investigating alternative strategies for dealing with the risk of TB from badgers and research into genetic resistance of cattle to bTB.

The new Strategy stresses the importance of flexibility when dealing with bTB and that controlling bTB "will require us to apply different sets of interventions according to circumstance because the problem is different in different parts of the country". It is intended that the Strategy will be "regularly reviewed and refreshed" taking into account field experience and advances in approaches to tackle bTB. **Pilot Badger Culls in Somerset and Gloucestershire** (March 2014). A4, 58 pages. Report by the Independent Expert Panel. Available for download from the GOV.UK website: https://www.gov.uk/government/publications/pilot-badger-culls-in-somerset-and-gloucestershire-report-by-the-independent-expert-panel.

**Pilot Badger Culls in Somerset and Gloucestershire: Report by the Independent Expert Panel: Defra response** (April 2014). A4, 12 pages. Department for Environment Food & Rural Affairs. Available for download from the GOV.UK website: https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/300424/pb14158-defra-response-independentexpert-panel.pdf. Any enquiries regarding the publication should be sent to: defra.helpline@defra.gsi.gove.uk.

The Strategy for Achieving Officially Bovine Tuberculosis Free status for England (April 2014). A4, 85 pages. Department for Environment Food & Rural Affairs. Available for download from the GOV.UK website: https://www.gov.uk/government/publications/a-strategy-for-achieving-officially-bovinetuberculosis-free-status-for-england.

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## Updated operational guidelines published in the UK covering the use of animals in research

To harmonise, strengthen and fully implement the 3Rs principles (Replacement, Reduction and Refinement), legislation covering the use of animals in research throughout the European Union (EU) was updated in 2010. Directive 2010/63/EU replaced Directive 86/609/EEC and took full effect in January 2013. All countries within the EU were required to have translated this Directive into national legislation by this time.

In the UK, The Animals (Scientific Procedures) Act 1986 Amendment Regulations 2012 (SI 2012/3039) transpose EU Directive 2010/63/EU and amend the Animals (Scientific Procedures) Act 1986 (ASPA). Section 21 of ASPA requires the Secretary of State to publish information on the conditions of licences and certificates issued under the Act, and how such licences and certificates may be granted. To comply with this requirement, 'Guidance on the Operation of the Animals (Scientific Procedures) Act 1986' was published in March 2014. The Guidance applies to England, Wales, Scotland and Northern Ireland.

The Guidance was developed following a period of consultation with key stakeholders and the Animals in Science Committee and replaces the previous Guidance, published in 2000. Arranged in 14 Sections, and including lengthy appendices (A to I), it is intended that the Guidance acts as a reference document and covers:

- "The scope and main provisions of the amended Act;
- The responsibilities of those with roles under the Act;
- Licences granted under the Act, including the terms and conditions of their issue; and

• Severity classification, humane killing and the accommodation and care of animals, including the status of Annex 3 to the Directive and current UK Codes of Practice".

Much of the new Directive was already covered by ASPA, however there are some key differences, and the Guidance will be helpful to those working under ASPA by giving information on new requirements. One area of change involves the retrospective assessment of projects that utilise cats, dogs, equidae or non-human primates, and of projects involving procedures classified as 'severe'. This has previously not been required in the UK and Section 5.17 of the Guidance provides some information on what is expected. Retrospective assessment has been put in place to assist with determining: whether the programme of work has been carried out; whether the objectives have been achieved; the amount of harm caused to the animals involved; and whether any lessons may be learnt and so facilitate further application of the 3Rs. Other useful additions to the Guidance include flow diagrams to aid in decision making, eg when considering whether to re-use animals (Section 5.19) and when considering the fate of animals at the end of a series of regulated procedures.

It is expected that the Guidance will be reviewed in approximately two years' time. Before this date, the Secretary of State may also publish further, more detailed, advice on some topics, such as guidance on the use of Animals Containing Human Material (anticipated publication date late 2014).

Guidance on the Operation of the Animals (Scientific Procedures) Act 1986 (March 2014). A4, 148 pages. Home Office. Presented to Parliament pursuant to Section 21 (5) of the Animals (Scientific Procedures) Act 1986. Print ISBN 9781474100281 Web ISBN 9781474100298. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/291350/Guidance\_on\_the\_Operation\_of\_ASPA.pdf.

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## Online, interactive training aid for farriers and equine veterinarians

E-Hoof is an interactive, web-based resource developed by the University of Zurich, the Swiss Metal Union, and the European Federation of Farriers Associations, with support from the EU Leonardo da Vinci transfer of innovation programme for lifelong learning. A number of other stakeholders are also involved as either strategic or educational partners.

The aim of e-Hoof is "to promote a high standard of knowledge, care and workmanship within the equine industry" because "sound knowledge forms the basis of good equine welfare practice". E-Hoof hopes to establish "a standard for farriery training across Europe" and also "to cultivate an exchange of expertise between two equine professionals, farriers and veterinarians".

Navigation of the website is achieved through clicking on one of the menu headings on the homepage: Topic, Anatomy, Glossary, Scripts, References, Workbook, Videos, Help and Information, and my e-Hoof. Alternatively, icons positioned at the top of the screen may be used, which are present at all times and allow you to navigate back and forth between different areas without having to return to the homepage. Either English or German may be selected as the preferred language.

Within the Topic section, there are 21 themes listed which range from general areas (such as Evolution and History, or Husbandry and Management), through to more technical subjects (such as Forging Specialised Shoes, Diagnostic Imaging, and Distorted Hooves). Each Topic is arranged in chapters, and each chapter is divided into subsections. Photos, diagrams, interactive figures and video clips are used to illustrate the information presented. The 'Scripts' section of the website allows you to view and print out a manuscript on your chosen chapter (minus any illustrations).

It is clear that E-hoof is a work in progress and some features are not yet available, such as the proposed feature for 'Questions' which will allow users to test their knowledge of the website content through self-assessment and 'Cases' which will allow users to view a selection of case studies of hoof disorders. Other features are partially available (eg most, but not all manuscripts in the 'Scripts' section are available to print). Additionally, some Topics are listed as 'coming soon' (eg History of farriery, Alternative hoof protection). However, there is still a vast amount of comprehensive material already on the website and it is intended that the E-hoof platform will continue to be updated and expanded as further information and features become available.

E-Hoof is aimed predominantly at veterinarians and farriers, but others interested in horse care may also find the website useful. Access to E-hoof is partial for guest users and limited to topics on Behaviour and Handling, Anatomy and Physiology of Organ Systems, Normal Shoeing, and Disorders of the Hoof, as well as the Glossary of terms. Users wishing to gain full access to the E-hoof platform may register for a free ten-day trial. Interested parties may then continue accessing the full website once their free trial period has elapsed by purchasing a licence, of which a number of different packages are offered.

**E-Hoof** (March 2014). E-hoof is a web-based resource developed by the University of Zurich, the Swiss Metal Union and the European Federation of Farriers Associations. It is available online at: www.e-hoof.com.

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