



SCOTTISH EXECUTIVE



Llywodraeth Cynulliad Cymru
Welsh Assembly Government



DEPARTMENT OF AGRICULTURE
AND RURAL DEVELOPMENT



National Scrapie Plan (NSP)

Semen Archive

Consultation Document.

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1. Introduction

- 1.1. This document seeks your comments on the plans for a Semen Archive in respect of the National Scrapie Plan (NSP) and the Northern Ireland Scrapie Plan (NISP). The following gives a broad outline of how Defra and the Rural Affairs Departments of the Devolved Administrations in Scotland, Wales and Northern Ireland envisage the Archive being administered. Your comments and suggestions are welcome and *all* will be considered when final plans are being drawn up. ***You are invited to comment on any or all sections of this consultation paper.***
- 1.2. Please send any comments you have to :
Alastair Douglas
Animal Health and Welfare Division (Rm 349)
Scottish Executive
Robb's Loan
EDINBURGH
EH14 1TY

Tel: 0131 244 6129
E-mail: alastair.douglas@scotland.gsi.gov.uk
- 1.3. It is normal practice to allow 12 weeks consultation period. Please could you ensure that any response is received by 12 May 2003.
- 1.4. In line with the Government's policy on openness, SEERAD intends to make available at the end of the consultation period, copies of the comments received. The main Scottish Executive library at K spur, Saughton House, Broomhouse Drive, Edinburgh, EH11 3XD (Tel: 0131 244 8455) will on request supply copies to personal callers or telephone enquiries. It will be assumed therefore that your reply can be made publicly available in this context, unless you clearly state that you wish all, or part of it, excluded from this arrangement.

2. Brief overview of the NSP and NISP

- 2.1. The NSP and NISP are long-term initiatives which aim to reduce and eventually eliminate Transmissible Spongiform Encephalopies (TSEs) from the national sheep flock. At present participation in the schemes is voluntary, but a compulsory scheme is required to be introduced under European Union (EU) legislation no later than 1 April 2005. There will be full and separate consultation on the scope of the compulsory scheme.

- 2.2. In accordance with the relevant opinions of the EU Scientific Steering Committee and advice from the UK Government's Spongiform Encephalopathy Advisory Committee (SEAC), the NSP and NISP involves the selection of sheep that naturally are most resistant to TSEs such as scrapie and BSE. It is designed to identify sheep that are most resistant to scrapie by their specific prion protein (PrP) genotypes, and to encourage the use of such animals for further breeding. Over time, the most susceptible animals are removed from the breeding cycle.
- 2.3. Further information about the NSP can be found at <http://www.defra.gov.uk/animalh/bse/bse-science/scrapie/nsp/nsp.html> or by contacting the National Scrapie Plan Administration Centre (NSPAC) on 0845 601 4858 or writing to NSPAC, DEFRA, Whittington Road, Worcester, WR5 2SU.
- 2.4. Further information on the NISP can be found at <http://www.dardni.gov.uk/core/dard0510.htm> or by contacting the NISP administration team on 028 9052 5275.

3. Reasons for proposed Semen Archive

- 3.1. The NSP and NISP are innovative programmes based on up-to-date and developing scientific knowledge. Because of this innovative nature, the sheep industry in particular have drawn attention to the need to have some capacity for reversibility built into the arrangements. The capacity could be activated at a future date if justified, for example, by new scientific or other knowledge. This would act as an insurance policy against future (currently unforeseen) developments and encourage uptake of the voluntary NSP and NISP schemes. These proposals have been developed on the basis of advice given to Rural Affairs Departments during and subsequent to the consultation period for the NSP. This advice came from the Spongiform Encephalopathy Advisory Committee (SEAC), the British Society of Animal Science, the Scottish Agricultural College, and a number of individuals and breed societies. A recent European Commission Decision allows Member States to assist breed societies who wish to do so, to establish genetic banks representative of genotypes likely to become rare as a result of the breeding programme for resistance to TSEs in sheep. The aim of the proposed Semen Archive initiative is as follows:
- To establish an archive of sheep semen which, on a contingency basis, in the event it should be discovered that genotypes being removed from the national sheep flock through the NSP are needed in a future situation, would enable the re-production and re-introduction of viable populations of sheep of these genotypes. This could be the case if, for example, a strain of TSE were

discovered to which the ARR allele conferred no resistance or if it were discovered that 'ARR/ARR' sheep could carry scrapie (or BSE or TSE) infection without showing clinical signs of the disease.

- To help cope with the situation, should it be proven that either the quality or survivability of sheep, or their welfare, in the regions in which they have been traditionally kept was becoming severely compromised by the removal of the 'susceptible' genotypes; if that happened the archive could be used to re-introduce the genotypes that had been removed.

3.2. It is important to note that it is not the aim of the Semen Archive to preserve breed traits unrelated to genotype. It is envisaged, however, that such traits might nevertheless be taken into account in selecting samples for the archive provided the primary aim of preserving genotypes was met.

4. What would be archived?

4.1. Scientific advice recommends that semen from 20 rams, if possible unrelated should be archived for each participating breed and for each susceptible homozygous genotype found in that breed. Should there be insufficient rams found of any of the genotypes present in a particular breed, up to twice the number of the shortfall should be sampled of heterozygous sheep.

4.2. Prp Genotype information available to date indicates that the four susceptible homozygous genotypes found in sheep have the following distribution

	Estimated number of breeds possessing	Number of unrelated rams to sample per breed	Total samples
VRQ/VRQ	80	20	1,600
ARQ/ARQ	87	20	1,740
AHQ/AHQ¹	<70	20	<1,400
ARH/ARH	4	20	80
Total			4,820

4.3. It is proposed that the Semen Archive should be confined to breed societies recognised by the National Sheep Association.

¹ A number of breeds show a very low frequency of this genotype.

We recognise that each breed society will have its own priorities when selecting rams whose semen they want archived. Some may simply select the highest value rams from the flock, while others will select with a view to achieving the broadest representation of their breed in each genotype. For most breeds, a combination of the two may be appropriate.

- 4.4. We would not want to unduly influence the choice of rams. We acknowledge that the expertise in sheep breeding lies within the industry, and as such, it will be entirely up to the breed societies to determine selection criteria. We would simply wish to be informed of each society's criteria.
- 4.5. If the donor ram were subject to NSP breeding restrictions, NSPAC would allow the selected rams to remain alive and entire until semen collection had been carried out. Any other exceptions to the normal NSP scheme rules previously agreed with NSPAC would continue to be in effect.
- 4.6. We would not contribute to the upkeep of rams referred to in 4.5. Breed societies and individual breeders would be required to agree arrangements for keeping these rams.

5. Broad description of proposed facility

- 5.1. We propose that the day-to-day operation of the facilities used to develop and run the archive should be in the hands of a contractor. In due course, following the completion, these services will be procured by a competitive tendering exercise in line with EC procurement legislation
- 5.2. There would preferably be more than one collection/storage facility, sited in order to minimise unnecessary animal movements, and as a precaution against a risk of failure at a single site. We will make clear when we invite tenders for this contract that collection of semen for the Archive will be available in at least 3 locations in the UK, at least one of which will be in Northern Ireland.
- 5.3. We propose that the operation of the NSP/NISP Semen Archive is overseen by a Management Group made up of both Government and industry members. The Management Group could have various membership profiles. *You are invited to nominate organisations or individuals that you feel should be included.*
- 5.4. The purpose of the Management Group would be to:
 - 5.4.1. Meet regularly (twice per year?) to monitor progress of the Archive

- 5.4.2. Represent wider stake-holders and report back to them
 - 5.4.3. Consider future funding options
 - 5.4.4. Decide on publicity/promotion materials
 - 5.4.5. All of the above would be within a specified budget from within NSP allocated funds.
- 5.5. Rare Breeds.
- 5.5.1. Rams tested under the one-off 2002 NSP Rare Breeds Genotyping Survey (RBGS) would be eligible to be part of the Archive, without having to comply with the restrictions of the NSP Ram Genotyping Schemes. Any other exceptions to the normal NSP scheme rules would continue to be in effect.

6. Funding

- 6.1. It is proposed that Government should meet initial funding requirements, including
 - 6.1.1. Identifying Ram Genotypes (as part of the NSP Ram Genotyping Schemes)
 - 6.1.2. The costs of procuring the services of a contractor
 - 6.1.3. Paying contractor's costs
 - 6.1.4. Publicity for project
- 6.2. It is proposed that industry should fund:
 - 6.2.1. Identifying suitable Rams from NSP Ram Genotyping Scheme members
 - 6.2.2. Transport of rams to and from the Archive facility.
 - 6.2.3. Any other incidental costs not covered by 6.1
 - 6.2.4. Continued storage and maintenance costs of the Archive once collection is complete. This will be around 3 years from the launch of the Archive.

7. Who will have ownership of the semen within the facility?

- 7.1. In order to best safeguard the Archive in the long-term, views are requested on whether the semen should be legally owned by:
 - 7.1.1. The individual breed societies
 - 7.1.2. The owner of the ram at the time of collection
 - 7.1.3. The Government

8. Timing

8.1 It will be necessary to gain EU approval for expenditure on the Archive, conduct this public consultation exercise and

complete a competitive tendering exercise for the service provider, before the facility will be ready.

9. Further Questions

9.1 In addition to commenting on the above, you may wish to consider the following questions:

9.1.1 How would owners be encouraged to submit their susceptible rams for semen collection?

9.1.2 Under what specific circumstances could the Archive be accessed and the semen used?

9.1.3 The proposed contractor will be required to keep accurate records of the identity, breed and genotype of each batch of semen in the Archive. How would breed societies prefer that this information were disseminated within the industry?

Annexe I -List of consultees:~

Organisations
All Local Authority Chief Executives
All DVMs
All Scottish Faith Groups
All Scottish Political Parties
British Veterinary Association (Scottish Branch)
Centre for Tropical Veterinary Medicine
Convention of Scottish Local Authorities
Crofters Commission
Food Standards Agency Scotland
Health & Safety Executive Scotland
Highlands & Islands Sheep Strategy
Highlands and Islands Sheep Health Association
Institute for Animal Health Neuropathogenesis Unit
Moredun Research Institute
National CJD Surveillance Unit, The
National Farmer's Union of Scotland
National Sheep Association Scotland
Quality Meat Scotland
Rowett Research Institute, The
Royal Dick Veterinary College
Royal Environmental Health Institute of Scotland, The
Royal Society of Edinburgh, The
SAC Veterinary Science Division
Scottish Agricultural Colleges
Scottish Association of Meat Wholesalers
Scottish Association Of Sheep Health
Scottish Association of Young Farmers
Scottish Borders Enterprise
Scottish Branch BVA
Scottish Consumer Council
Scottish Crofting Foundation, The
Scottish Environment Protection Agency
Scottish Federation of Meat Traders Association
Scottish Landowners Federation
Scrapie and Related Diseases Advisory Service
Sheep Veterinary Association
Sheep Veterinary Society
Shetland Agricultural Association
Shetland Animal Health Trust
University of Glasgow Veterinary School
Women's Farming Union