

NSC FAnGR News

Newsletter of the UK National Standing Committee on Farm Animal Genetic Resources Issue 4, January 2011

Introduction

Welcome to the fourth of this series of NSC FAnGR newsletters. The last six months has been a very busy period for the NSC. During this period we offered advice to UK Government and Devolved Administration Ministers on the genetic implications of cloning of farmed animals – a subject that generated much media interest. Our statement of 13 September 2010 can be seen on the NSC [website](http://www.defra.gov.uk/fangr) www.defra.gov.uk/fangr. We also provided advice on the genetic diversity implications of the sale of Shetland cattle in public ownership <http://www.defra.gov.uk/fangr/documents/letter-to-roseanna-cunningham.pdf>.

Highlights of other work of the committee in the last few months include:

- Completion of the report on poultry breeding structures in the UK – the full report is now available on the website <http://www.defra.gov.uk/fangr/documents/uk-poultry-faw.pdf>
- Continuation of the work on harmonising lists of breeds at risk – we will shortly be alerting breed societies of any intended change of status of their breed, and confirming estimates of population size. More details of the approaches we have adopted are provided later in this Newsletter.

- Provision of advice to Rural Affairs Departments on the conservation of genetic resources in an outbreak of an exotic disease

In October 2010, the UK Government reported on its review of 'Arms Length Bodies' and announced that the NSC is to be reclassified as a Departmental expert committee (rather than a Non-Departmental Public Body). The Committee members are very pleased that the Government recognises the ongoing need for technical advice on farm animal genetic resources. The Committee will continue to provide advice to Defra and the Devolved Administrations.

The Committee strongly welcomes Target 13 of the Convention on Biological Diversity (CBD) Strategic Plan for 2011 – 2020 recently agreed in Nagoya. The target is that 'by 2020, the loss of genetic diversity of ... domesticated farm animals in agricultural ecosystems and of wild relatives is halted, and strategies have been implemented for safeguarding the genetic diversity of other priority socio-economically valuable species as well as selected wild species of ... animals'.

Finally, Roy Paterson, the Scottish Government representative on the committee, retired in September 2010 and he has been succeeded by Roy McLachlan. We are very grateful for Roy Paterson's very significant contribution to the NSC since its inception.

Prof Geoff Simm, Chair, National Standing Committee on Farm Animal Genetic Resources

Progress in implementing Recommended Actions in the National Action Plan

A brief update on the work of the four sub-groups of the committee is given below.

Please visit our website for more information on the NSC and its work, for an update on progress on Recommended Actions in the UK National Action Plan on FAnGR, and links to other sites of FAnGR interest: <http://www.defra.gov.uk/fangr/>

Education and Communication

The FAnGR NSC continues to advise and engage with Government, Industry and Advisory bodies.

- With the issue of cloning of farm animals prominent in the national press, the FAnGR NSC has been active in providing advice to Government Ministers and the Devolved Administrations (see link above).
- The FAnGR NSC has provided a written response to the FAWC Consultation on Disease and Farm Animal Welfare.

- Two NSC members were involved in the Centenary conference of the Shetland Cattle Herdbook Society – Prof Simm commented “Shetland cattle are small, and reputed to be hardy, breed early, be easy calving, and thrive on grass and forage. As pressure mounts over the coming decades for us to be able to feed more people using less resources, we have to work hard to ensure that we are using resources in animal agriculture that compete less with growing crops for direct consumption. Harnessing attributes of Shetland cattle and breeds with similar characteristics could be part of the solution.”
- The Poultry Structure Report has recently been finalised (see link above).

Research and Development

The R+D subgroup aims to deliver the action points from the National Action Plan which focus on Research and Development. These include, the identification of research and development priorities for FAnGR, and encouraging the funding of these research projects by Government and others, identification of potential funding routes and the dissemination of R&D results.

All the projects commissioned to meet the action points of the National Action Plan have now been completed, or are close to completion. Information can be found on the Committee Website <http://www.defra.gov.uk/fangr/randd.htm>.

One of the latest of these projects, shortly to be completed, reviewed nutrient efficiency in different breeds of meat, milk and egg producing farm livestock. The project looked to see whether there are differences in feed energy and protein efficiency associated with different breeds or genetic lines.

As highlighted by the Chairman's comments, the subject of cloning led to considerable public interest in farm animal genetics. The R+D subgroup has been actively involved in working together with the other subgroups and committee members to provide evidence based statement on the cloning of farmed animals. The evidence, collected from both the scientific literature and elsewhere, addresses not only the issue of products from cloned animals in the food chain, but also includes explanatory background notes on cloning technology and its uses.

Identification, Monitoring and Characterisation

We have prepared an advanced draft of definitions of breeds, addressing issues such as whether a breed can be considered native and feral, how island breeds are to be considered and what happens when breeders diverge in their objectives for a breed. We have agreed a list of test cases and are working through those test cases to see how they fit with the definitions that have been developed.

A beef structure report is at an advanced stage and was tabled at the December meeting. It explores the complexity of the UK beef industry in relation to genetic resources. The beef industry makes use of a large number of pure breeds and the large dairy herd in the UK. However, it

exploits heterosis in the widespread use of crossbred dams to raise crossbred calves for slaughter. Native cattle breeds contribute less than 1 gene in 8 to beef and Holstein Friesian genes contribute nearly 3 out of 8, with the remaining genes coming primarily from continental beef breeds. There is little evidence of a systematic rotational crossing system in operation to breed beef. Much of the information was obtained from the British Cattle Movement Service and whilst it provided an invaluable source of data, the recording of breed by farmers made analysis of the data challenging.

The IMC sub-group has completed a project to identify and list pig genetic resources held in breeding company nucleus herds. 22 breeds will be added to the UK inventory. Guidelines for recognising new commercial breeds have been agreed. This will allow the inventory to be updated in the future so that it can accurately reflect the depth of genetic resource maintained by the UK's world class pig breeding companies.

Conservation and Sustainable Use

Over recent months much of this group's work has been in collaboration with the IMC group to prepare robust definitions within our remit and produce full lists of breeds in the UK. With this work and the publication of the poultry structure report, the CSU group is now working on approved breeding programmes for the various species and integrating the appropriate breeds into environmental and conservation schemes.

To this end, the CSU group has prepared a new approach to the individual breed organisations to encourage better recording of their resources and greater participation in

the efforts being promoted by the NSC.

Members of the CSU group have also been involved in current moves to raise the profile of the genetic biodiversity of farm animals in relation to general biodiversity considerations as identified in the proceedings of the recent meeting at Nagoya.

Contact details (secretariat)

NSC FAnGR Secretariat

Area 5A

9 Millbank

C/o Nobel House

17 Smith Square

London

SW1P 3JR

Tel: 0207 238 4949

Email:fangr@defra.gsi.gov.uk