



NSC FAnGR News

Newsletter of the UK National Standing Committee on Farm Animal Genetic Resources

Issue 2, January 2010

Introduction and welcome

Few people can have failed to notice the increasing media coverage of the role of livestock in greenhouse gas emissions, and some fairly extreme, and often simplistic, views on how to reduce their impact. There is no doubt that global livestock production has a significant environmental impact. However, we need to consider the benefits it brings, as well as the problems. We also need a clearer vision of how livestock can become part of the solution.

The global human population is expected to increase by 50% in the first half of this century, and global demand for food is expected to double over the same period. In fact, UN experts have predicted that we will need to produce as much food in the next 50 years as we have in the last 10,000 years!

Growing global demand for food is a major challenge in its own right, but it will need to be addressed in a world with a potentially dramatically changing climate, and with diminishing natural resources,

especially fossil fuels, and a shortage of water.

About 70% of the world's agricultural land is grassland; much of this is unsuitable for other forms of cropping, and it can act as a carbon sink. Also, livestock production in many parts of the world uses crops or by-products unsuitable for direct consumption by humans. A key challenge for livestock breeders and keepers, and the scientists, advisers and others that support them, will be to develop animals and systems that are publicly acceptable, produce high quality food with minimum environmental impact, and with minimal competition for resources that can be used for direct food production. In general, we know that improving individual animal productivity and efficiency reduces emissions per unit of product. Similarly, reducing losses from infertility and disease reduces emissions at a system level. Also, there is some evidence of variation in emissions among animals independent of levels of production. It is vital that we gain a better understanding of our FAnGR, and how

they can be used and developed sustainably to meet the interrelated challenges of increasing global food production and living with climate change.

Our first Newsletter, produced in summer 2009, highlighted the work of the NSC and the progress it had made in its first year of operation. The articles that follow provide an update on NSC activities over the last 6 months. In particular, good progress has been made in:

- Developing a single list of breeds at risk with key FAnGR stakeholders.
- Initiating new research projects that support conservation and sustainable use of FAnGR.
- Reviewing breeds native to the UK
- Developing a set of recommendations for risk management of mainstream breeds.
- Finalising our Communications Plan.

We welcome feedback and suggestions via the Secretariat, whose details are given at the end of this Newsletter.

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 work in progress of the four sub-groups of the committee are detailed below

Please visit our website for more information on the NSC and its work, and links to other sites of FAnGR interest:

<http://www.defra.gov.uk/fangr/>

Identification, Monitoring and Characterisation

The most recent actions of the Identification and Monitoring Committee are setting out a blue print for the UK monitoring system for Farm Animal Genetic Resources. This monitoring is part of the UK's obligations under CBD and the Interlaken Declaration. This is a high priority in the FAnGR Action Plan, underpinning several important actions. The monitoring is intended to look at our resources at two levels. Firstly by examining the structure of different sectors – for example the dairy sector relies primarily on pure breeds where in the pig and poultry sectors there is a large reliance on structured crossbreeding. Sectors will not change rapidly and will only require periodic review. Secondly, there is the monitoring of individual breeds to assess their status – whether or not they may require consideration for conservation action. The status of these may change rapidly and regular review is required – which must be simple and low cost.

Conservation and Sustainable Use

Conservation & Sustainable Use Group has been working on several important issues in recent months. A set of recommendations for risk management in mainstream breeds has been prepared in order that protection of genetic resource and prevention of genetic loss may be maintained in these breeds. It is seen to be as important to manage these situations in the mainstream breeds as it is to conserve the stocks of rare and endangered breeds.

The group has also undertaken a thorough review of the breeds which might qualify as native to the UK and worked in consultation with Natural England to consider all breeds in the British Isles in relation to conservation and rural support measures. The value of native and traditional breeds in conservation grazing has

recently been demonstrated once again in efforts to encourage the breeding population of the Barn Owl (*Tyto alba*) in Somerset. Two conservation bodies have combined their efforts at Congresbury Moor near Weston-super-mare in a highly successful project to encourage these birds to breed. A reserve for this purpose was purchased by YACWAG (Yatton and Congresbury Wildlife Action Group) and the conservation grazing is managed by The Cobthorn Trust using some of their Dexter cattle to produce the specific pattern of long grass necessary for voles which are the owls' main prey.

The introduction of this conservation grazing has proved so beneficial to the owls that the resident pair has produced 13 young over the last three seasons and a pair of Kestrel (*Falco tinnunculus*) has bred in another box on the same reserve. The additional gain of this collaborative project is that the Dexter cattle used are part of the international project to conserve the original and authentic bloodlines of that traditional breed. Delight at the outcome of this joint venture has been expressed by both YACWAG and The Cobthorn Trust, more birds have bred and it has allowed the maintenance of a larger conservation breeding group of the cattle.

Education and Communication

The **Communication plan** has been produced by the E&C subgroup and this is being considered by the FAnGR National Standing Committee. This plan will be key in cascading the work of the NSC to Stakeholders and Governments. An important element will be the identifying and securing resources to implement the communication plan successfully.

Success stories are being linked to the website. Educational resources on FAnGR for use in **Schools, Colleges** and **Universities** are actively being

identified and linked to the FAnGR website.

Research and Development

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

To date, a number of research projects have been initiated through central or devolved Government or other funding. A list of these is available on the NSC website

<http://www.defra.gov.uk/fangr/randd.htm>.

Final reports for completed projects are also available on the website. The committee has developed a list of funding priorities and is currently working to identify potential funding routes to support these key research areas.

UK EFABIS update

The committee has updated data and photography in the pig section of the European Farm Animal Biodiversity Information System (EFABIS). Please see the link and instructions attached to access the UK Pig breeds.

<http://efabis.tzv.fal.de/>

- Click on UK map.
 - Click on Breeds.
 - Click on Breed Data Sheets.
 - Under Countries highlight the UK.
 - Under Species highlight Pig.
 - Under Breeds highlight the chosen pig breed.
 - Click Submit to obtain data on this breed.
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Costs of the Committee and Secretariat

The work of the National Standing Committee on Farm Animal Genetics Resources (FAnGR) is financed principally by Defra, which also provides the Secretariat. The DAs have also contributed by hosting quarterly meetings. During the financial year 2008/2009, the total public expenditure on the Committee was £54,699.26. This sum comprised £25,974.86 for member's fees, travel and other costs and £28,724.40 for the Secretariat's salaries.

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