

**European Commission Council Regulation (EC) N° 870/2004  
AGRI GEN RES 2006**

**HERITAGE SHEEP**

**Heritage Sheep Review and Steering Group (HSRSG)  
First meeting - Middlesmoor, UK**

**MINUTES**

**Wednesday 18th April 2007**

**IN ATTENDANCE:**

**Partners:**

Dianna Bowles (UK) (Chair) (**DB**)  
Amanda Carson (UK) (**AC**)  
Xavier Dornier (France) (**XD**)  
Andreas Georgoudis (Greece) (**AG**)  
Christina Ligda (Greece) (**CL**)  
Chaido Mizeli (Greece) (**CM**)  
Lucia Kaal (Netherlands) (**LK**)  
Henri Woelders (Netherlands) (**HW**)  
Drago Kompan (Slovenia) (**DK**)

**External Evaluators:**

Dominique Planchenault (Director Bureau des  
Ressources Génétiques ERFP coordinator)  
(**DP**)  
Mike Roper (Defra UK National Co-ordinator for  
FAnGR, Chair ERFP) (**MR**)  
John Woolliams (Roslin Institute) (**JW**)

**Management team:**

David Clayton (**DC**)  
Duncan Rotherham (**DR**)  
Sally Steele (**SS**)

**Apologies:**

Coralie Danchin-Burge (France) (**CDB**)  
Spike Joost Hiemstra (Netherlands) (**SJH**)

**1. INTRODUCTION OF ATTENDEES**

DB welcomed the participants in the Review and Steering Group to the meeting.

**2. OVERVIEW AND OUTLINE OF THE HERITAGE SHEEP PROJECT**

AC gave an overview of the project which aims to conserve Heritage Sheep Breeds (HSB) by *in situ* and *ex situ* means.

HSBs were originally defined by The Sheep Trust following the Foot and Mouth Disease (FMD) crisis in 2001 as:

- geographically concentrated
- environmentally adapted
- genetically distinct
- commercially farmed to economically support the local communities in which they are located

The impact of FMD highlighted the threat to local communities dependent on breeds of animals that were geographically concentrated in a region, adapted to their environment and genetically distinct.

The value of these breeds is now recognised and through their adaptation to local conditions they are vital in extensive medium- to low-input farming systems. In the future, with the reform of the CAP and decoupling of subsidies from production, HSBs will become even more important as the environmental status of farms becomes more important.

The project includes six workpackages (WP) with key outputs:

WP1: Identification of the threats to HSBs and the development of a generic scoring system which can be applied to breeds across Europe that will determine the extent to which a breed is at risk.

WP2: The development of guidelines for *in situ* / on-farm breeding programmes vital for the survival of HSBs.

WP 3+4: The development of a framework that will achieve best practice for the cryoconservation of HSBs in the EU by comparing existing technologies and monitoring existing stores of genetic material.

WP 5: The creation of a website, [www.heritagesheep.info](http://www.heritagesheep.info) for HSBs that links to and complements existing databases.

WP6: The overall management of the project and the preparation of information packs designed to communicate to farming groups the products and value of HSBs.

Each of the workpackages was then presented to the group by the partner responsible for its delivery.

### **3. PRESENTATIONS BY EACH PARTNER**

#### WP1: Characterisation and Evaluation of Heritage Sheep Breeds (AC)

Objective 1 is to survey the HSBs of the 5 participating countries and collect data including:

- origin and history
- pedigree records
- breeding trends
- population trends
- important traits
- husbandry techniques
- disease susceptibility / resistance

Objective 2 is to identify potential threats through collaboration with specialists in the risk areas, for example, those that are:

- government officials for national and EU policy
- environmentalists
- geneticists

Objective 3 is to develop a scoring system that can be applied to each breed to assess the relevant threats.

Objective 4 is to select two breeds per Partner country determined by the scoring system to be most at risk and from them collect and cryoconserve genetic material.

From the 5 partner countries, 54 breeds initially described in the ERFP Scoping Study will be surveyed.

<b>France 13 breeds</b>	<b>Netherlands 13 breeds</b>	<b>Greece 7 breeds</b>	<b>Slovenia 4 breeds</b>	<b>UK 17 breeds</b>
Tarasconnais Causses du Lot Bizet Limousine Velay Black Rava Grivette Merinos d'Arles Mourerous Basco Béarnaise Manech Tête Noire Manech Tête Rousse Corse	Kempen Heath Veluwe Heath Drenth Heath Schoonebeek Mergelland Friesian – milkshoop Zeeland – milkshoop Black Blazed Blue Texel Swifter Flevolander North Holland Texel	Anogeiano Boutsiko (Orino) Frizarta Kalarritiko Kefallinias Mytilini (Lesvos) Sfakia	Bovec Sheep Istrian Pramenka Bela Krajina – Pramenka Jezersko – Solcava	Herdwick Shetland Rough Fell Derbyshire Gritstone Lonk Romney South Welsh Mountain Welsh Hill Speckled Dalesbred Exmoor Horn Devon Closewool Black Welsh Mountain Cheviot Brecknock Hill Cheviot North Country Cheviot Clun Forest Southdown

WP 2: Strategies and guidelines of successful *in situ* / on-farm breeding programmes that will enhance profitability of HSBs (XD)

To identify the criteria which contribute to the success of HSBs:

- (a) Analysis of successful cases of development strategies for HSBs
  - analysis of their selection schemes
  - analysis of product valorization
  - identification of the criteria necessary for the development of HSBs
- (b) Identification of common criteria for development of HSBs
- (c) Implementation of guidelines for the safeguard of HSBs

Each partner country would be asked to select a breed that has successfully been developed either for improved production or successful marketing. A comparison of failed breed initiatives may also be compared to determine which factors may have contributed to the failure. The parameters by which success can be measured will be determined by Partner 2 who will develop a questionnaire that can be sent out to the breeds selected.

The data collected will be analyzed to determine if there are any common criteria for the overall success and guidelines can be drawn up that can be applied to similar breeds or breeds in similar regions in other countries.

WP 3: Identification of *ex situ* conservation, collection and cryopreservation strategies (LK, HW)

Objective 1 is identification of collection and cryopreservation strategies.

Objective 2 is comparison and evaluation of practicalities in collection and freezing methods.

Objective 3 is development and implementation of strategies for *ex situ* conservation.

Tailored for HSBs in Europe

Output for WP3: Defined framework on how to conserve HSBs plus guidelines for cryopreservation.

WP4: Collection and cryopreservation of semen (LK, HW)

Objective 1 is identification of breeds for *ex situ* conservation (in combination with WP1).

Objective 2 is construction of optimal method (result of WP3).

Objective 3 is collection, freezing and storage of semen.

For example, methods have been developed for semi-quantitative collection from the caudae epididymidis of slaughtered rams.

- from 34 rams, an average of 20 billion epididymal spermatozoa per ram were collected = 108 doses of 0.2 billion sperm/dose
- total : 3660 doses epididymal semen

Epididymally collected semen showed the highest quality with respect to the % motility of sperm and % live sperm compared to ejaculated sperm. More lambs per ewe also resulted from AI using epididymally collected semen than with ejaculated semen.

Learning from partner countries about techniques used for freezing semen, and methods to improve conception rates following the use of frozen semen were highlighted as important goals.

WP5: Web-based network of HSB genetic resources (CL)

Objective 1 is to establish a web-based permanent and widely accessible European network of national inventories of HSBs.

Objective 2 is to provide a database structure for combining all the information for the assessment of threats.

Objective 3 is to provide the environment for the presentation of the results.

NT Internet Information Server (IIS) with Mdb format of Data was proposed, as well as ASP (Active Server Pages) technology for the Central Web Based Network. The Holstein Association of Greece NT Server would be available for hosting, with up to date technology

It was envisaged that the website would be divided into two areas: one that can be accessed by the public, and a restricted area accessible only to the partners.

The public area will contain information relating to the projects objectives and information such as:

- partners
- breeds
- related web links
- results / outputs
- events

The restricted area will comprise the database that will allow partners to access/edit information held in the database and interrogate the database using queries. (These queries may be developed as standard forms relating to specific topics, eg to compare production parameters or to compare quantities of semen held in store.)

In addition, the restricted area will contain management pages where the partners will be able to access/upload reports (questionnaire forms, protocols etc) and other communications relating to the project.

To avoid duplication of effort it was suggested that data from existing sources could be uploaded to provide a groundwork of information, for example from the ERFP scoping study and EFABIS. Alternatively, links to existing databases could be used in order to display further data. GIS technology might be required for the presentation of spatial results relating to threats to specific breeds and if so, methods for information collection were discussed. Ultimately the information gathered would be required for dissemination to interested parties including Government policy-makers, breeders and the general public.

#### WP6: Overall management of the project

This workpackage was discussed under Item 4 of the agenda.

#### **4. MANAGEMENT OF THE PROJECT**

DC made a presentation outlining the timescale of events in relation to the delivery of results. The project will run for 24 months from April 2007 to April 2009. The table he presented showed the timescale for the publication of reports, Project Management Committee (PMC) conference calls and other milestones.

Month 1 (April 2007) included the first meeting of the Heritage Sheep Review and Steering Group (HSRSG) and the launch of the website [www.heritagesheep.info](http://www.heritagesheep.info).

It was proposed that monthly management meetings by conference calls/Skype should be held to discuss progress of the project. In the week prior to these calls, an update of activities and progress from each partner would be circulated to inform discussion. It was agreed that an exchange of emails would follow the meeting of the HSRSG including the minutes of the meeting and action points for each partner. Skype was raised as the preferred method of communication to connect all partners: the local time differences between the countries were for example as follows:

UK time:	19.00hr
Netherlands/France time:	20.00hr
Slovenia/Greece time:	21.00hr

A meeting of the HSRSG was also scheduled to occur in Month 8 (November 2007) to review the scope and content of the first Annual Report which is due by the end of May 2008. It was agreed that this meeting would be a conference call rather than a gathering of the partners.

The final report of the project is required in July 2009 which is 3 months after the end of the project.

It was agreed that the Project Management Committee (PMC) would consist of each Partner plus David Clayton and Duncan Rotherham. David Clayton offered to Chair the PMC and the monthly calls of the PMC.

## **5. FINANCE**

DR gave a presentation on the financial aspects of the project.

Financial reports required include:

- final financial statements
- annual interim financial statements

These will be delivered by DR following all of the information being supplied by the partners. Thus, audited reports from each partner must include:

- in detail by expense category for eligible expenses
- in detail by expense category for non-eligible expenses
- summary of eligible/non-eligible costs by expense category

Following submission of all the information, DR agreed to summarise the data and produce consolidated reports of all partners' eligible/non-eligible costs by expense category in order to request payment from the Commission.

All reports must be submitted in paper and electronic form:

- interim reports to be submitted within 2 months
- final reports to be submitted within 3 months
- Commission has 45 days to respond to technical/financial reports
- interim and final payments to be made 45 days after Commission approval

Using the finance forms provided, all partners were urged to provide:

- detail in the expense category forms – transaction references, relevant WP
- audit certificates
- travel expenditure within Commission limits – see Article 1.13

## **6. PROJECT MANAGEMENT COMMITTEE (PMC)**

It was agreed that these meetings would take place monthly, if possible via a Skype connection. The next PMC will be held on 24th May 2007.

## **7. ANY OTHER BUSINESS**

None

## **AGREED ACTION POINTS**

1. AC to develop a list of data required for each breed. From this list she will develop a *pro forma* to gather information from sheep breed societies. The *pro forma* will focus on the information not already available from EFABIS and ERFPS Scoping Study and will relate more specifically to the threats to breeds. The list will be reviewed by all partners who will input ideas before the final version is agreed.
2. XD to develop a list of data identifying the parameters that can be used to measure a successful production/breeding project. All partners will input ideas into this before finalisation.

From Action Points 1 and 2, a questionnaire will be developed for sending out to breed societies. The questionnaire will be translated into the native language by each partner who will also take responsibility for sending them out to the breed societies, and translating the received information back for AC and XD.

3. LK and HW to develop two questionnaires for each partner, to take responsibility for finding the data nationally. The first will focus on gathering information relating to current collections of germplasm and the second will focus on current practices/techniques of cryoconservation.
4. CM to consider also a list of fields potentially important for the database. These will be compared to the topics emerging in the questionnaires developed above. Possible queries will also be formulated as examples of how the database could be interrogated.
5. CL to explore the links between HSB website and EFABIS. For example, could tables be imported into the HSB database or would it be preferable to establish a link between the two sites such that information in tables is only displayed. For this it is important to consider how much interrogation of the database will be required and for what purposes the interrogation would be undertaken. Examples of how the database could be used in the future will be provided to guide the partners.
6. Every partner to investigate the possibility of using Skype, and a communication using this technology will take place on Thursday 24th May 2007 at 19.00hr (UK time) [20.00hr - France/Netherlands time; 21.00hr - Greece/Slovenia time]. Each partner will provide an email address for Skype connection to [amandacarson@btinternet.com](mailto:amandacarson@btinternet.com) as soon as possible.

**The results of Action Points to be emailed to each partner before the next PMC.**