Laboratory Testing for Genetic Defects

Currently, in Belgium, they are testing for 7 genetic defects, namely:- Congenital Muscular Dystonia type I (CMDI); Congenital Muscular Dystonia type II (CMDII); Crooked Tail Syndrome (CTS) ; Proportionated Dwarfism (DW); Hamartomas (HAM); Prolonged Gestations (PG) and Arthrogryposis Syndrome (AS).

The Society has carried out a small research project, on approx. 100 animals, across a range of genetics, in conjunction with the Roslin Institute in Edinburgh, on CMD 1, CMD 2 and CTS. These initial results indicate a very low incidence of CMD 1 and 2, in the region of 1-2% of the UK animals tested, which is very encouraging. The results on CTS were inconclusive and required further research. Considerably more work has been done on the Belgian Herd Book population by Liege University in Belgium, under the direction of Professor Michel Georges and his colleague, Carole Charlier.

As from the 1st January 2012, all new semen sires, used in the UK, are required to be tested for the above genetic defects; the results being published by the Society. A number of members may also wish to test their own animals to find out if they are carrying any of these recessive genes. The Society has made arrangements for any person or company, wishing to test a UK animal to have this carried out in the laboratories of the 'Unit of Animal Genomics' at Liege University.

The cost ranges from 60 to 200 Euro (£50 to £165) per sample depending on the number of tests carried out. For an order form which must accompany a blood or semen sample go to :-
http://www.giga.ulg.ac.be/jcms/prod_381044/diagnostics.

For any further advice contact Carole Charlier direct, she speaks fluent English,
by E-mail : carole.charlier@ulg.ac.be

Payment is best made online, through the International Online Facility. The required information is as follows: -
Holder's name: Université de Liège.
Place du XX Aout, 7
4000 Liege
Belgium
Bank's name: BELFIUS
Account number: 091-0015718-33
IBAN: BE79 0910 0157 1833
SWIFT- BIC: GKCCBEBB

Every bank transfer must have as a communication reference the number of your invoice from the University.

Type of Sample Required and where to send it.:-

Either at least 2ml of whole blood in an EDTA tube (lavender cap) or a straw of semen. These samples can be sent by regular mail to :- Carole Charlier, Unit of Animal Genomics, GIGA-R & Faculty of Veterinary Medicine, University of Liège (B34), 1 Avenue de l'Hôpital, 4000-Liège (Sart Tilman), Belgium

Eradicating CMD 1 and 2 in the UK

The advice, which has been given by Professor John Wolliams, of the Roslin Institute, is that if all animals carrying the CMD 1 and CMD 2 recessive genes in the UK are culled, then these two conditions could very quickly be eliminated from the British population. The very low level of instance, in the UK, would lead to such culling having very little impact on the overall UK genetic pool, however to achieve this you need to know the status of your animals, obviously, and they need to be tested.

Putting a recessive bull on a recessive female will give you approximately a 25% chance of having a defective calf born; however whilst mating a recessive animal with an non recessive animal will not lead to a defective calf, it will contribute to the spread of the recessive gene to future generations and is definitely not recommended.

Looking to the Future

The Society is currently in negotiation with a UK laboratory, in conjunction with Liege University, with a view to being able to offer testing facilities in this country. Selling bulls and females tested negative for these diseases could, in future, become another positive selling point