

Genetic Improvement



Antur Texel Breeding Project

The Antur Texel flock was established in 1988 to act as a research flock for the evaluation of new breeding technologies.

Initially it was involved in the development and evaluation of the 'Lean Index' within the Texel breed, and was a founder member of the Elite Texel Sires Sire Reference Scheme. Since then, selection has focussed on using the Lean Index to improve growth rate and carcass composition, and in 2001 the Antur flock was ranked 1st on flock index out of 70 flocks in the Sire Reference Scheme.

The flock has been involved in the development of whole body CT scanning, in collaboration with SAC, to improve the accuracy of estimating carcass composition and muscularity in the live animal. Along with other members of the Sire Reference Scheme, it has utilised CT scanning of potentially high index ram lambs to improve the accuracy of muscle and fat depth Estimated Breeding Values (EBV) and, from 2003, to produce an EBV for muscularity which is putting an objective score on conformation for the first time.

Along with other pedigree breeders, the flock has had to take on board breeding for scrapie resistance. The whole flock was scrapie genotyped in 2001 as part of WEGS 1 and then registered with NSP and WEGS 2. Since then, only scrapie resistance group 1 (ARR/ARR) rams have been used, and gradually the genotype profile is shifting from a majority of group 3 ewes in 2001 to a majority of group 2 ewes in 2004. In 2002, embryo transfer was successfully

carried out on the 5 group 1 ewes in the flock to try and improve the proportion of ARR/ARR genotypes, and the progeny from this will lamb down for the first time in 2005.

The flock has also been involved in producing Estimated Breeding Values for Faecal Egg Counts, (FEC EBV). This means that individuals which are more resistant to roundworms can be identified. In practise it is another tool used in the selection of replacements. It is of great value when selling rams to organic producers as it helps to identify the most useful ram for their given situation.

During the last five years, the Antur Texel flock has taken part in the genome mapping research project based at the Roslin Institute. Genetic markers for muscularity QTLs have been identified, with the progeny of the stock ram, Callerton Glenlivet, having played an important role in this research.

ANTUR TEXELS: High Index Flock selected on performance, conformation and breed type.

Stock Rams:

- **Callerton Glenlivet.** SRC 00035 (ARR /ARR)
- EBV's: Scan wt. +10.09 kg; Muscle depth +5.08 mm; Fat depth -0.49 mm; Lean Index 331
- **Goldies Juggernaut** GJG 03021 (ARR /ARR)
- EBV's: Scan wt. +7.52 kg; Muscle depth +3.42mm; Fat depth -0.64 mm; Lean Index 264

HCC supports genetic improvement through the Farming Connect Sheep and Beef Development Programme. For further details on this group, please contact HCC Industry Development team:

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