

STAPLEDON MEMORIAL TRUST TRAVELLING FELLOWSHIP REPORT

Research on aspects of the variation in vertebrae number and their length in two areas of the spine, and the relationships to meat yield in different sheep breeds and crosses.

Research Fellow

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Main purpose of the Fellowship

The Fellowship was aimed to support 5-month period at the Sustainable Livestock Systems Research and Development Group at SAC, Penicuik, Scotland under the supervision of Dr Lutz Bünger. The fellowship period included experience with projects on factors affecting sheep carcass yield and quality, and knowledge of computer tomography scans and other computer skills.

Fellowship period

The activities covered by the Fellowship were carried out in the UK between 19 May and 17 October 2009.

UK lead research organisation that hosted the Fellow

Institution name: SAC Penicuik

Contact lead researcher: Dr Lutz Bünger

Contact address: SAC, Sustainable Livestock Systems Research and Development Division, Penicuik Midlothian EH26 0PH Scotland

E-mail address: Lutz.Bunger@sac.ac.uk

Summary of work carried out

Worked mainly on aspects of the variation in vertebrate number and their length in two areas of the spine and the relationship to meat yield in different sheep breeds and crosses. Information was obtained from Computer Tomography (CT) scans; however, this information could also be obtained in an abattoir where no CT equipment is available.

Other work included the TM-QTL project and attended the Steering Committee Meeting at which the project team presented their results and outlined the work ahead and detailed plans for slaughter and dissection of experimental lambs. Joined the slaughter team in the WCF abattoir in Wales and

saw this impressive plant with its high speed line and learned about the use of video image analysis to evaluate the value of lamb carcasses. Took part in the following dissection of the slaughtered lambs at SAC as part of a larger team helping to measure the carcass composition and some aspects of the meat quality. Able to see the CT equipment at SAC and learn about this technology in a modern sheep breeding programme, which is used in a synergistic way with Ultrasound scanning. Also learned about sheep breeding programmes in the UK and the stratified structure of the UK's sheep production and involvement of SLS in the development selection indexes for all tiers of this system.

During the period of Fellowship visits made to the SAC Experimental Sheep Unit, which was very helpful for future studies in Ethiopia, and also attended all seminars at SAC, which were of relevance to increasing knowledge of animal science. Knowledge of Microsoft Office tools was also deepened (mainly Excel and WinWord) and also learned how to use Reference Manager as bibliographical software and the principals of the use of SAS in statistical analysis.

Follow-up plans arising from the Fellowship Programme

The knowledge acquired will be very valuable for institute in Ethiopia and for animal production in Ethiopia. On return to ask head of Institute to invite Dr Lutz Bunger to give a series of lectures at the Institute and the neighbouring University about genetics and the new technologies in sheep breeding.