CT Scanning **Texel** Sheep...

growth through technology

**Computed Tomography**

...are you making the most of whole body carcase evaluations to market your recorded stock
“a near perfect predictor of carcase composition”
What is Computed Tomography (CT)?

Computed Tomography (CT) provides a welfare friendly and non-invasive way of assessing the total muscle, fat and bone yield in live sheep using whole body X-ray image analysis. This near perfect predictor of carcase composition can also be used to measure the muscling (muscle shape) in different parts of the carcase, such as the gigot.

CT scanning is a great tool to identify superior genetics within terminal sire flocks and can assist the marketing of recorded rams.

**CT scans can help sell rams**

High Index Texel rams are consistently making more money than average rams at Lanark, Worcester and Welshpool National Society Sales.

Rams with superior CT scans will get higher and more accurate EBVs as a result of being CT scanned and this can result in an increase in their value.

Even the raw CT images are useful in promoting the flock and the rams that they are selling.
The Economics of Using CT

It will never be economically or logistically possible to scan all potential breeding animals. In the UK a two-tier approach is used to identify candidates for CT scanning.

All lambs are assessed using ultrasound scanning to measure muscle depth across the loin and backfat. About 20% of the best of these lambs should then be sent to the CT scanner. An economical appraisal at SRUC has shown that this maximises the cost-benefit ratio.
What will CT scanning tell you?

Simplified “the inside of your ram lamb”. Raw CT measurements will show the predicted values for:

- Weights of fat, muscle and bone in the carcass
- Percentage of fat, muscle and bone in the carcass
- Killing out percentage (total tissue weight / liveweight)
- Ratio of muscle to bone and muscle to fat in the carcass
- Distribution of muscle in the carcase – including the percentage of muscle in the leg, loin or chest
- Gigot shape

The accuracy of Estimated Breeding Values for growth and carcass traits will be greatly enhanced through the incorporation of CT data into the evaluation of your flock.

Indexes and EBVs will be increased if CT measures prove an individual or family to be genetically superior.
What does CT scanning cost?

To use the CT service the following charges apply for 2014

- SRUC BioSS scanner (Edinburgh) - £65 per lamb
- Mobile scanner (Nottingham / Aberystwyth / Carmarthen) - £97 per lamb
- Mobile scanner (Exeter) - £99 per lamb
- Mobile scanner (Thorganby) – Contact SRUC for prices

The following subsidies have been offered for 2014.

- EBLEX - £55 per lamb (max of 15 lambs per flock / breeder for English lambs)
- HCC - 50% off per lamb charge for Welsh lambs scanned in Wales
- QMS - 50% off per lamb (~£32.50) for Scottish Lambs scanned at Edinburgh
- The Society are committed to assisting Members in their flock and our breeds development. We offer £30 per lamb subsidy for any fully recorded flocks that birth notify lambs and use the “Mobile Scanner”

Subsidy is subject to the following conditions:

- Lambs are male and have been ultrasound (back fat) scanned
- At least 5 ram lambs per participating farm, which are sired by more than one ram.
- Lambs must have been reared under similar conditions
What do I do next?

If you are interested in CT scanning your lambs contact Kirsty McLean at SRUC BioSS to book your lambs in for CT scanning.

Kirsty McLean
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Website: http://www.sruc.ac.uk/info/120274/ct_scanning_service

Let your ultrasound scanning technician know that you wish to CT scan, so that an appropriate date can be set for ultrasound scanning.