

# SIL eNote 2: Meat Scanning Tips

March 2009

If carcass quality (Meat - DPM or TSM) is in your breeding programme, SIL recommends measuring carcass merit by ultrasound meat scanning to obtain the most from your genetic evaluations.

Here is a quick tip and reminder on what you can do when ultrasound meat scanning to maximise data quality for a Meat genetic evaluation:

- A) Scan in the autumn at 6-8 months of age
- B) Scan a minimum of 25-30 progeny per sire
- C) Record eye muscle width & depth together with fat depth in the loin
- D) Weigh all lambs on the same day as scanning including un-scanned lambs
- E) Record all scanning details i.e. scanner, mobs etc
- F) Set up scanning facilities to ensure the best scan images
- G) Use the Meat sub-index in conjunction with the Growth sub-index

More details about the quick tips and reminders have been expanded upon below:

## A) Scan in the autumn at 6-8 months of age

- 1) Scanning earlier than 6 – 8 months when lambs are smaller usually means the lambs are more uniform in size and can't be differentiated against as well, i.e. they haven't had as much of a chance to express their true genetic merit. The more difference there is in their adjusted measurements the more the breeding values can be spread out.
- 2) Scanning later can mean puberty and other environmental effects that are hard to adjust for can mask animal's true genetic merit.
- 3) 6-8 months is the best time for scanning as it is closest to the typical slaughter time

## B) Scan a minimum of 25-30 progeny per sire

- 1) A minimum of 25-30 progeny are recommended to get a good prediction of genetic merit for each sire and to give good connectedness within and between flocks
- 2) Scan ewe progeny if there are not enough male progeny
- 3) Don't select the very best progeny from each sire if you are not scanning them all – make a random selection to eliminate bias

## C) Record eye muscle width & depth together with fat depth in the loin

- 1) All 3 measurements must be taken to give good predictions of genetic merit for weights of lean (muscle) & fat in the carcass
- 2) Different scanners may scan in slightly different positions to each other, this is not as issue as SIL can adjust for it, as long as:
  - a) different scanners are recorded if 2 or more are used for a flock
  - b) each scanner scans in the same position themselves and is consistent
- 3) EMA (eye muscle area) is not used in the Meat sub-index prediction as it is statistically more accurate to use 2 predictors (width and depth) than EMA
  - a) SIL does produce an EMA breeding value

## D) Weigh all lambs on the same day as scanning including un-scanned lambs

- 1) A scan day live weight is an important predictor of carcass tissue size
- 2) Try and record a live weight on the same day as scanning for all of the un-scanned lambs, so more accurate Meat BVs can be predicted for them based on their own live weights and the scan and live weight data of their half-sibs

## E) Record all scanning details i.e. scanner, grazing mobs etc

- 1) All known environmental effects need to be recorded to ensure raw data can be fairly adjusted for, otherwise biases can occur
- 2) It is important to record mob, scanner, & date of scanning

#### **F) Set up good scanning facilities to ensure the best scan images**

- 1) Good scan images are vital for obtaining accurate scan measurements
- 2) Important things to consider are animal flow, animal behaviour, animal posture (standardised), and ultrasound scan screen clarity, most scanners will be able to assist in this area

#### **G) Use the Meat sub-index in conjunction with the Growth sub-index**

- 1) Using the Meat and Growth sub-indexes together allows you to identify genetically fast growing animals with high carcass value
- 2) Some genes are associated with both growth and meat traits
- 3) The Meat sub-index consists of a LEAN BV (lean/muscle weight in the carcass) and a FAT BV (fat weight in the carcass)

**For more information on Meat Scanning** refer to our website and the technical notes under Production – Meat and Wool

#### **Upcoming SIL eNote topics**

- LW18 at 18 months
- Pregnancy Scanning

#### **Notice board**

- SIL eNotes can be found on the SIL website under Technical Information
- SIL is featured at the NZSAP conference in June: A programme is being developed for SIL Breeders and their ram buyers, more information is coming soon
- SIL newsletters can be received by email, email [silhelp@sheepimprovement.co.nz](mailto:silhelp@sheepimprovement.co.nz) to sign up

#### **Contact details & further information**

SIL eNotes are designed to give you some quick tips and reminders on how to get the best out of performance recording and genetic evaluations with SIL. For further information or if you have any questions refer to our SIL website or contact our SIL helpline.

**Website:** [www.sil.co.nz](http://www.sil.co.nz)

**Phone:** SILhelp – 0800 silhelp (0800 745 435)

**Email:** [silhelp@sheepimprovement.co.nz](mailto:silhelp@sheepimprovement.co.nz)

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