AUSTRALIAN STOCKSCAN SERVICES P/L

In 1999 Rowan Farmer (Stockscan NZ) was invited by several leading Poll Dorset breeders to scan their sheep. Having worked with eye muscle depth measurements only, these breeders felt it was imperative to also measure eye muscle width and area.

In 2000 these breeders established Australian Stockscan Services P/L and this company contracts Stockscan NZ to carry out scanning services in Australia.

Currently, over 15,000 sheep are scanned throughout Australia each year.

The client base of Australian Stockscan Services P/L continues to grow, with breeders seeing the importance of eye muscle and loin weight measurements.

Client feedback has indicated Stockscan is user friendly and cost effective. It offers accurate, informative results and Stockscan data is being very well received by the end users: Prime Lamb Producers of Australia.

Australian Stockscan Services P/L aim to provide breeders with measurements that are directly beneficial to the Prime Lamb Industry.

BACKGROUND, QUALIFICATIONS AND ACCREDITATION

Rowan Farmer established Stockscan New Zealand in 1985. In 1991, he initiated scanning both the eye muscle width and depth to give a calculated Eye Muscle Area (EMA) measurement.

Research has seen the development of the Loin Weight (LW) measurement, enabling sheep breeders to identify sheep that have a good body length and are well muscled.

Stockscan has always been vigilant in maintaining accuracy with the scanning measurements, by regularly comparing scanned measurements with actual carcass measurements.

Stockscan currently employs three Australian based operators. Scanners regularly check their scanning results to ensure individual accuracy and consistency within Stockscan.

Figures are also accepted by SIL (Sheep Improvement Limited – NZ) *www.SIL.co.nz*

STOCKSCAN

RUN BY DEDICATED BREEDERS WHO UNDERSTAND THE PRIME LAMB INDUSTRY

Australian Stockscan Services Pty Ltd operates ultrasound scanning services throughout Australia with a team of highly trained and specialised operators.

Stockscan has developed equipment and software in conjunction with leading industry professionals that provides practical computerised information, with reports and solutions that enhance on farm livestock practices.

Information or scanning bookings contact:

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WE ADD *VALUE* TO FARMING OPERATIONS

Our services include:

Ram & ewe eye muscle scanning
Data processing and reporting

WHY THE MEAT INDEX?

The meat index allows a group of young sheep with different live weights, eye muscle dimensions and fat depth to be analytically compared.

Referring to the diagram at right, research has shown that:

- Eye muscle width (A) is more to do with the type of animal, i.e. shape and leanness.
- Eye muscle depth (B) is associated with the environment; feeding etc., which could change the ranking, if the animals were under stress at the time of scanning.

Fat Depth (measurement C) affects the index only slightly.

MUSCLE TO WEIGHT RATIO

The muscle to weight ratio figure (EMA/LW) is calculated to help the breeders identify sheep with more meat, thus higher yielding carcasses. With the introduction of VISCAN these higher yielding carcasses will be more profitable.

LOIN MEASUREMENT

Stockscan in New Zealand has been working with Agresearch and together have perfected a technique to provide a loin measurement. We feel this has tremendous benefit to breeders and their clients.

Loin measurement will identify lambs which have good body length and are well muscled. Shoulder issues and mobility are a problem related to shorter sheep; these types are not able to progress into a class of heavier carcass weights. Identifying longer bodied sheep with optimal muscling could have benefits for the sheep industry.

If requested, loin measurement will be available to Australian clients and the processed results included with your normal analysis data report.
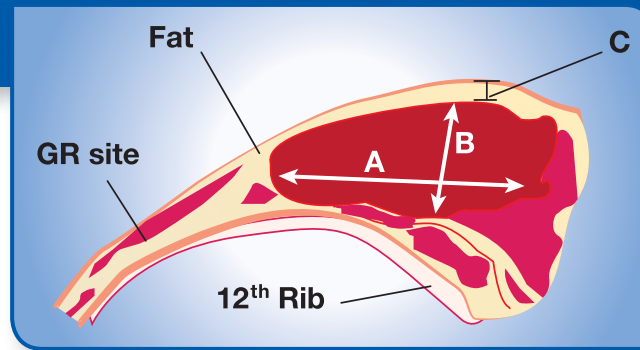

Figure 1: Exposed 12th rib on the carcass cut through the last thoracic and first lumbar vertebrae.

The image above shows the location of the measurement sites: the eye muscle width (A), eye muscle depth (B) and fat over the eye muscle (C).

WHAT IS THE MEAT INDEX?

The meat index formula is based on the eye muscle width (A), eye muscle depth (B) and fat (C) measurements. A higher predominance is given to eye muscle width (A) because it is more heritable while eye muscle depth (B) is influenced by environment factors. Fat (C) is penalised slightly. The resulting number is then adjusted for the age of the sheep, so the index is what the sheep's index would have been at eight months of age.

SCANNING MEASUREMENTS

Scanning for performance traits in animals has become a significant on-farm measuring tool for many years.

Australian Stockscan Services P/L scanners assess sheep at around 8–12 months of age for:

- Live Weight (LW)
- Eye Muscle Width (A)
- Eye Muscle Depth (B)
- Fat Depth (C)
- Eye Muscle Area (EMA) is calculated using the eye muscle width (A) and depth (B) measurements (A x B).
- Eye Muscle Area (EMA) to Live Weight (LW) ratio calculated.
- Meat Index Live Weight measurement.

EASY TO READ RESULTS

The table below is an example of the results provided after scanning and processing. The table includes the ranking of your flock, from highest to lowest, plus the measurements and the important **Stockscan Index**. If **Sire ID** is provided, a Sire Summary will also be included. This makes it easy to focus on your flock's best or worst performers.

Rank	RAM ID	Sire ID	Eye Muscle Width (A)	Eye Muscle Depth (B)	Fat Depth (C)	Live Weight (LW)	Eye Muscle Area (EMA)	Eye Muscle/ Weight Ratio (LW / EMA)	STOCKSCAN Index
1	316	A207	101	46	9	127.5	35.77	0.281	1312
2	89	A207	98	42	8	110.0	31.69	0.288	1141
3	159	E411	94	46	6	106.5	33.29	0.313	1121
4	127	S9	94	40	8	98.5	28.95	0.294	981
5	114	S9	91	41	10	114.5	28.73	0.251	908
6	167	A207	90	40	7	104.0	27.72	0.267	869
7	220	A207	88	38	6	98.0	25.75	0.263	771
8	214	E411	86	40	6	104.5	26.49	0.253	757
9	241	E411	86	40	8	78.5	26.49	0.337	749
Averages			92.0	41.4	7.6	104.7	29.43	0.293	957