

meatup

FORUM

For the latest in red meat R&D

Using processor carcass feedback for better on-farm decisions

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ALMTech



DATA – INFORMATION - DECISIONS

DATA (Feedback)

- What data is available from where?

INFORMATION (Feedback analysis)

- What information can we extract from it?

DECISIONS (On-farm)

- What decisions can be made on-farm to improve compliance, efficiency and profit?



Australian Government
Department of Agriculture

ALMTEch

Advanced Livestock Measurement Technologies project



FRONTMATEC





1/2 hour researching recipes + 1
hour cooking + 5 seconds
for kids to

She should have cooked
Lamb!

som_{ee}cards
user card

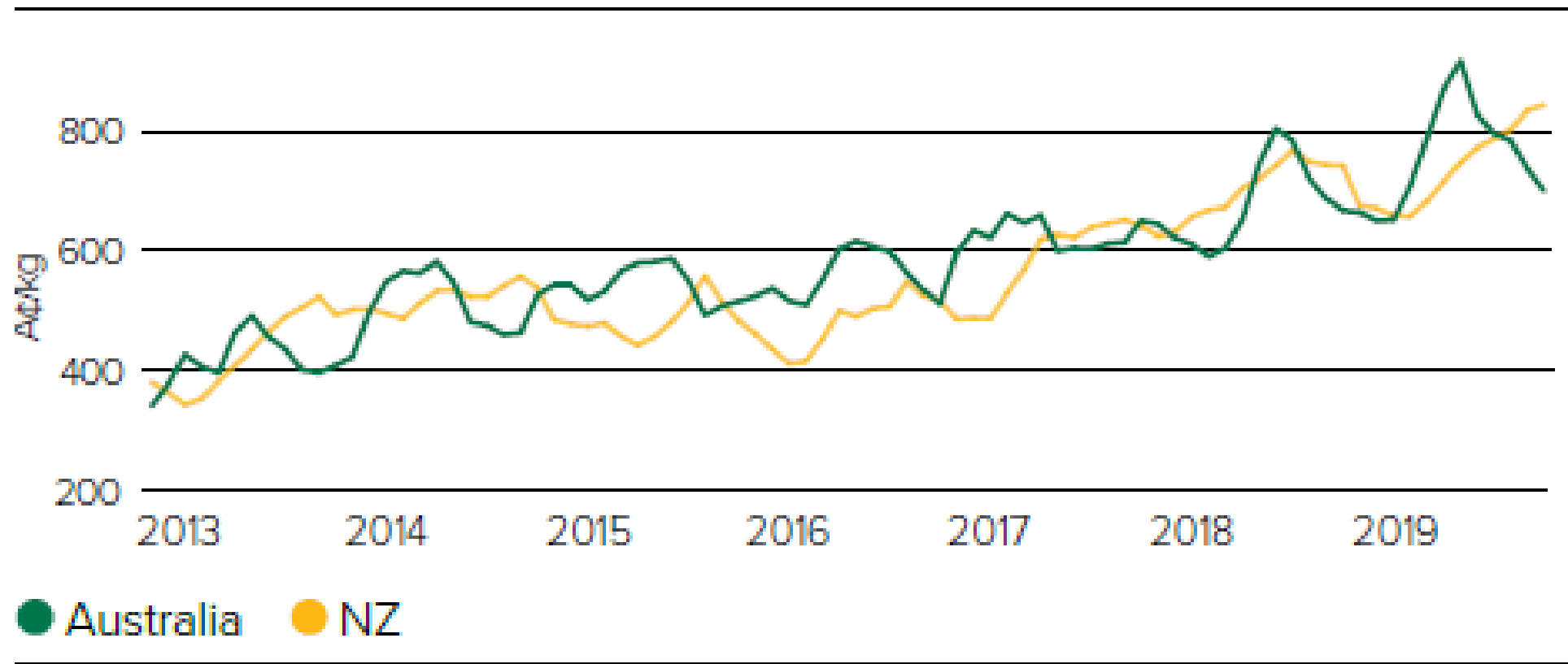




SA Lamb 2002 (\$3.00/kg cwt)



Australian and NZ lamb prices



Source: MLA, Agri HQ

Grid not an accurate reflection of the customer

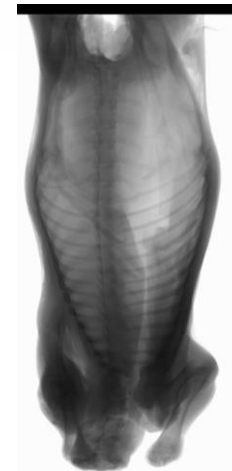
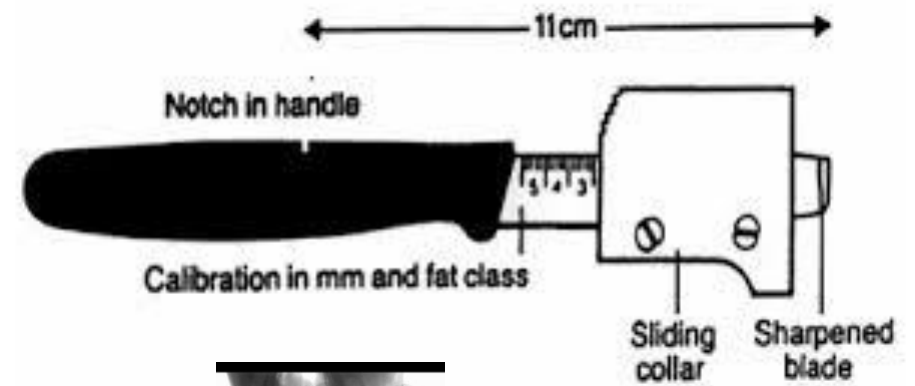
Only 10% will hit 'sweet spot'

Grade	Fat Scr	Teeth	Price										
New Season Lambs			8.0-	8.0+	12.0+	16.0+	18.0+	20.0+	22.0+	24.0+	26.0+	30.0+	32.0+
N1	1	Milk	0.30	1.50	1.90	4.30	4.70	4.70	4.70	4.70	4.70	4.70	4.20
N2	2	Milk	0.30	1.80	2.20	4.60	5.00	5.00	5.00	5.00	5.00	5.00	4.50
N3/N4	3-4	Milk	0.30	1.80	2.20	4.60	5.00	5.00	5.00	5.00	5.00	5.00	4.50
N5	5	Milk	0.30	1.80	2.20	4.60	5.00	5.00	5.00	5.00	5.00	5.00	4.50

Lack of accurate measurements of carcass fat

Fat scoring in plant

- Mostly by 'palpation', similar to live fat scoring
- Can be with a GR knife (more accurate)
- New technologies – DEXA



Future Carcass Value

$$\begin{array}{ccccccc} \text{Carcass value} & = & \text{Carcass Wt} & \times & \text{Lean Meat} & \times & \text{Eating} \\ (\$) & & & & \text{Yield} & & \text{Quality} \end{array}$$


Need to be able measure these!

THE **V**UE

Why is lean meat yield important?

Score 4

Carcase Wt. 23.0 kg

GR 20.0 mm

Score 2

Carcase Wt. 23.6 kg

GR 10.0 mm



Score 4

Fat: 6.87kg (30% fat)

Saleable Meat: 10.34kg
(46% LMY)

Retail Value: \$207

Score 2

Fat: 4.68kg (20% fat)

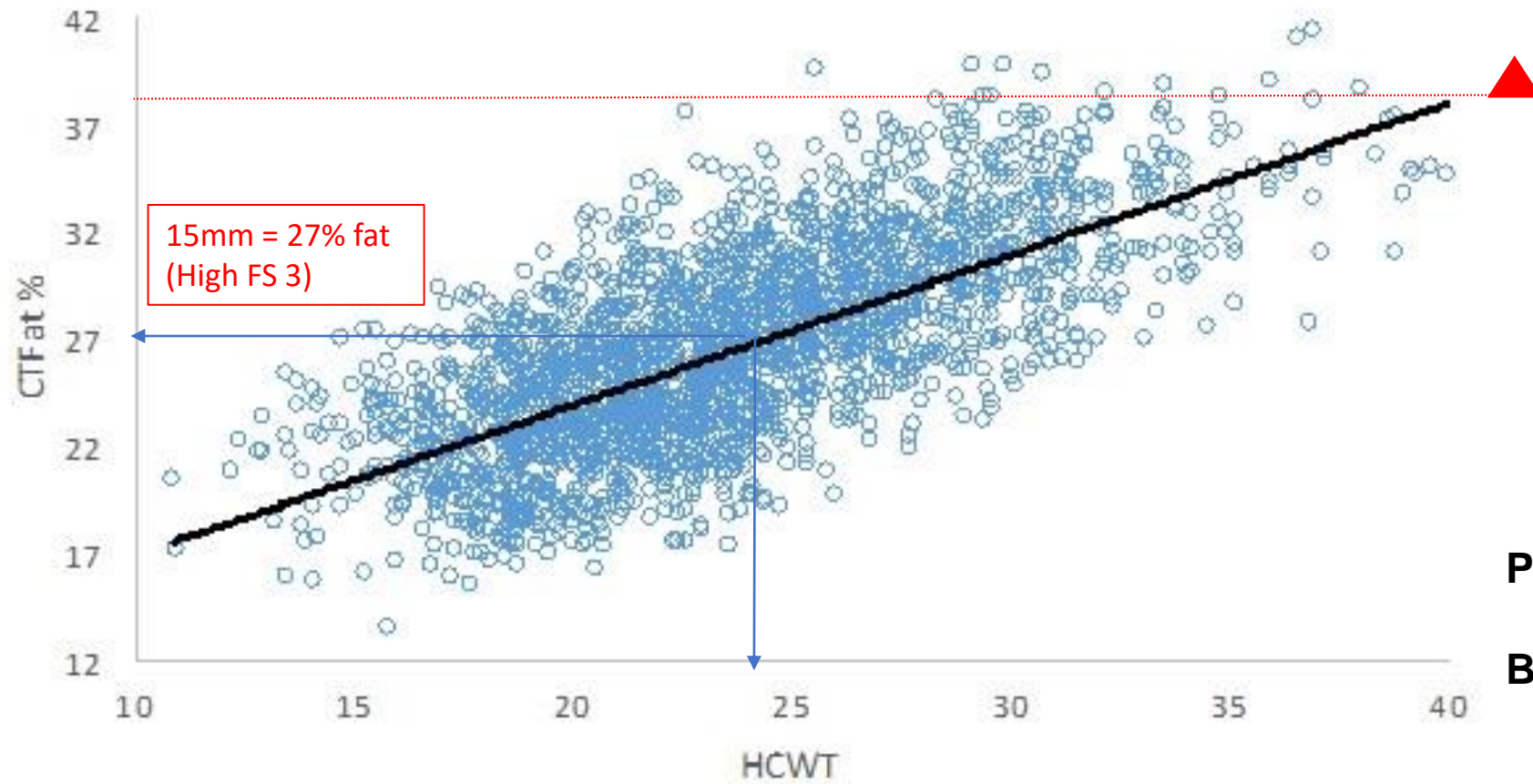
Saleable Meat: 13.08kg
(56% LMY)

Retail Value: \$262

Top	Round	Rump	Saleable Meat 10.34 kgs
LAMB B Cold Carcase Weight 23.0 kg GR 20.0 mm Fat Score 4 Lean Meat Yield 46.2%			
Lean Trim	Retail Cut	Kgs	Price Value
	Rib Eye Roll	.961	12.99 \$12.48
	Bless Shoulder	1.864	10.99 \$20.49
	Foreshank	.371	7.49 \$ 2.78
	8-Rib Rack	.788	25.99 \$20.48
	Eye of Loin	.525	24.99 \$13.12
	Tenderloin	.122	24.99 \$ 3.05
	Topside	1.188	14.99 \$17.81
	Silverside	.753	12.99 \$ 9.78
	Round	.804	15.99 \$ 2.86
	Rump	.463	16.99 \$ 7.87
	Hindshank	.541	7.49 \$ 4.05
	Lean Trim	2.571	7.49 \$19.26
		10.951	\$144.02
	Bone	5.152	NCV nil
	Fat	6.869	NCV nil
		22.97 kgs	\$144.02

Hindshank	Rump	Round	Lean Trim	Saleable Meat 13.08 kgs
LAMB A Cold Carcase Weight 23.6 kg GR 10.0 mm Fat Score 2 Lean Meat Yield 50.0%				
	Retail Cut	Kgs	Price	Value
	Rib Eye Roll	1.123	12.99	\$14.59
	Bless Shoulder	2.442	10.99	\$26.84
	Foreshank	.502	7.49	\$ 3.76
	8-Rib Rack	.696	25.99	\$23.29
	Eye of Loin	.694	24.99	\$17.34
	Tenderloin	.156	24.99	\$ 3.90
	Topside	1.326	14.99	\$19.88
	Silverside	.799	12.99	\$10.38
	Round	.931	15.99	\$14.89
	Rump	.530	16.99	\$ 9.00
	Hindshank	.606	7.49	\$ 4.54
	Lean Trim	3.290	7.49	\$24.64
		13.295		\$173.04
	Bone	5.584	NCV	nil
	Fat	4.683	NCV	nil
		23.56 kgs		\$173.04

There's a lot of fat in a heavy 'fat lamb' = Inefficient



Processors prefer 20-27% (FS 3)

Bone-out time compared to 23kg FS3

- FS5 = +20%

- 30 Kg FS5 = +40%

Feed Conversion Efficiency (FCE)

- Fatter animals = lower FCE
- Takes more feed to put on fat than muscle

Fatter animals

= low

=

rec

4x more feed to put on 1kg
fat compared to 1kg muscle

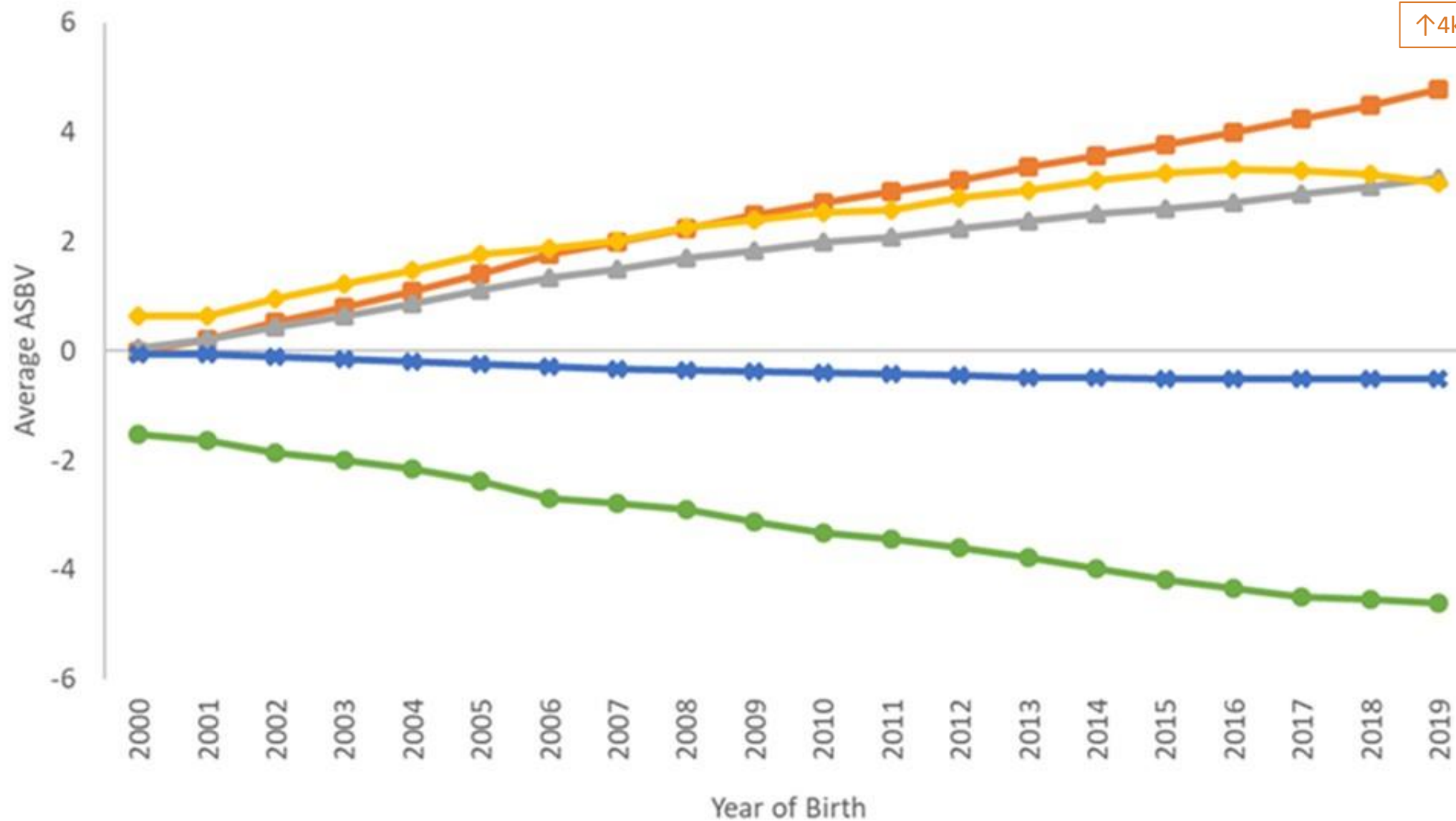


Objective carcass measurement of LMY



LAMBPLAN Genetic Trends (July 2020)

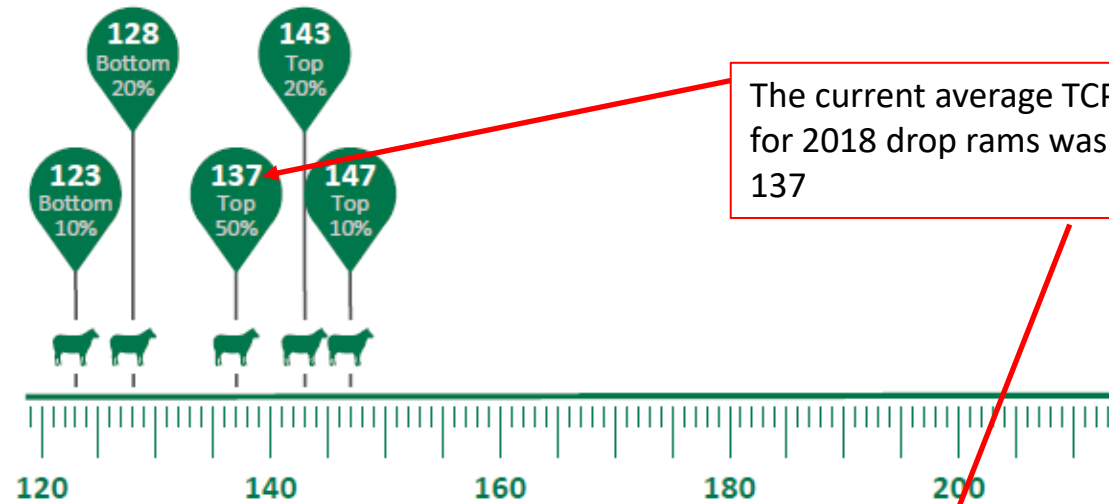
CWT LMY% ShearForce5 IMF% Overall Liking



TCP vs Carcase Plus Index

Terminal Carcase Production

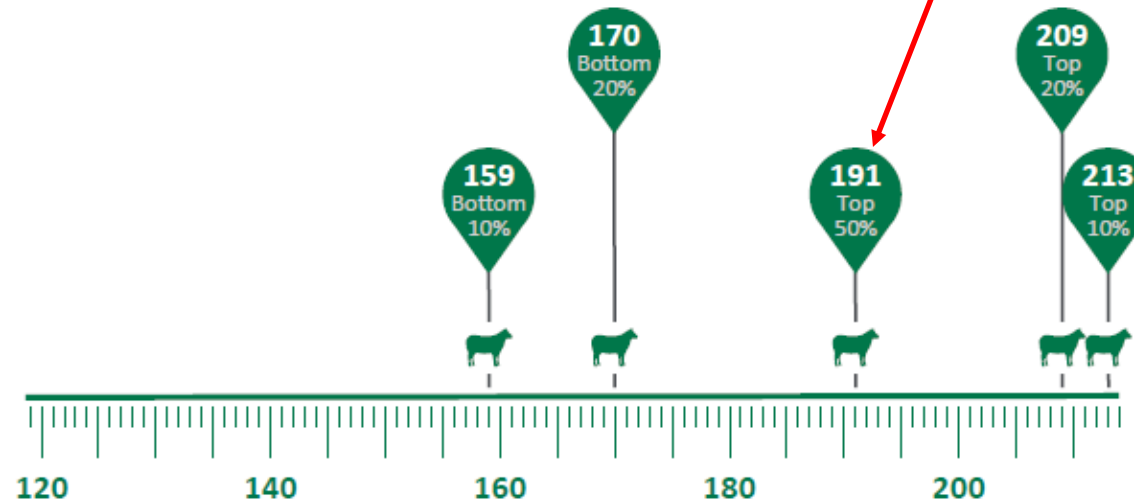
Replacement for Carcase Plus



The current average TCP for 2018 drop rams was 137

Carcase Plus

Discontinued March 2020



Objective carcass measurement of Eating Quality (EQ)

EQ = tenderness + juiciness + flavour

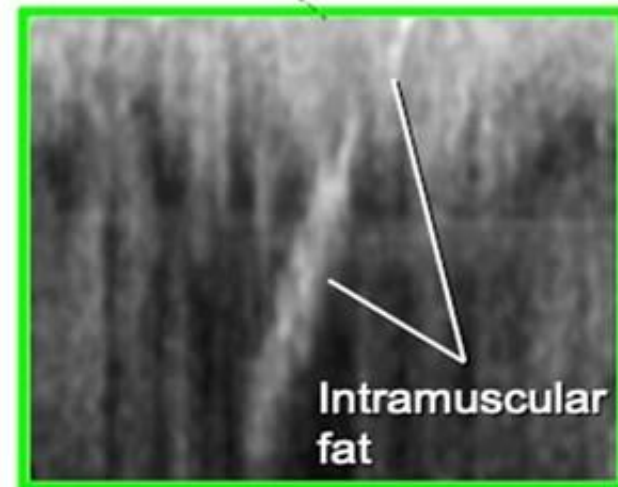
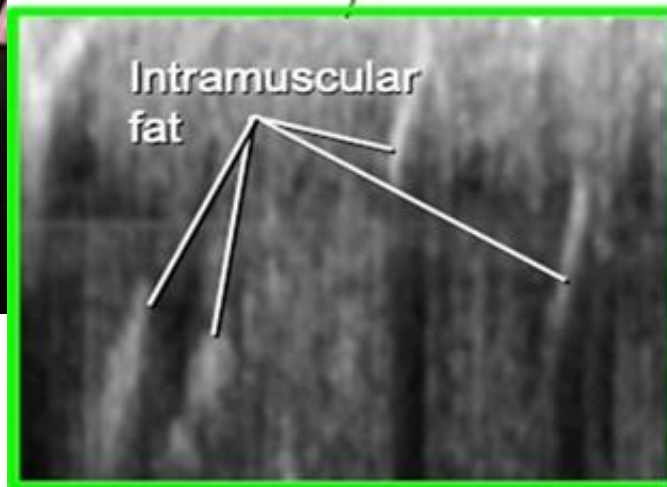
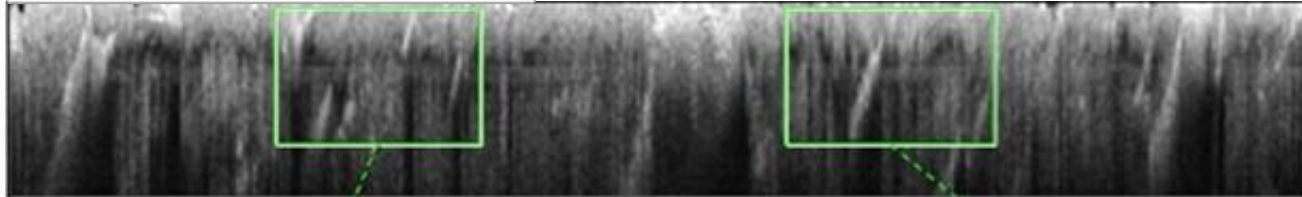
EQ = higher IMF%



LAMB

4.2% = current IMF%

> 5% = premium EQ

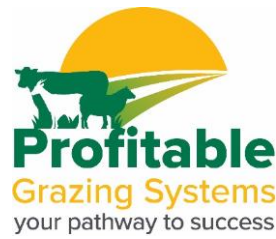


What might future grids look like?

- Will include weight.
- Will include LMY
- Will include EQ index
- Possibly compliance bonus

		Weight (kgs)												
LMY	FS	0-10	12-16	16-18	18-19	20-22	22-24	24-26	26-28	28-30	30-32	32+		
54-56	5													
56-57	4													
57-58	3													
58-60	2													
60+	1													
					MSA Join Index=72									

The market sweet spot
(18 – 26kg FS 2,3)
4* or above loin (0% failure rate !)



Meat The Market

Lamb compliance workshop



Developed in association with Sheep CRC, MLA, JBS and GMP

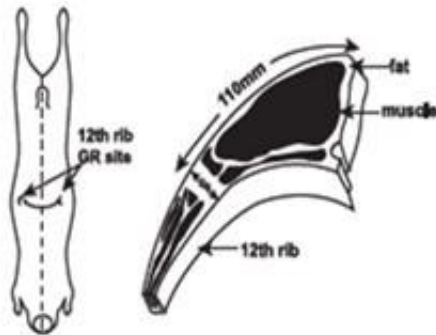
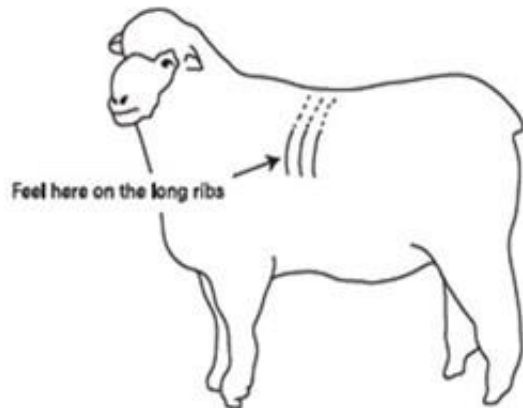
Key Learning Outcomes: assist producers improve compliance for carcase weight and LMY, whilst maintaining or improving meat eating quality.

- Mix of theory, on-line & hands-on learning (processing plant and on-farm)
- Delivered through supply/value chains with OCM systems
 - Piloted to 2 **JBS** groups in Bordertown SA (Feb 2019 – July 2019)
 - 1 group **Gundagai Meat Processors** (July 2019 – 2020)

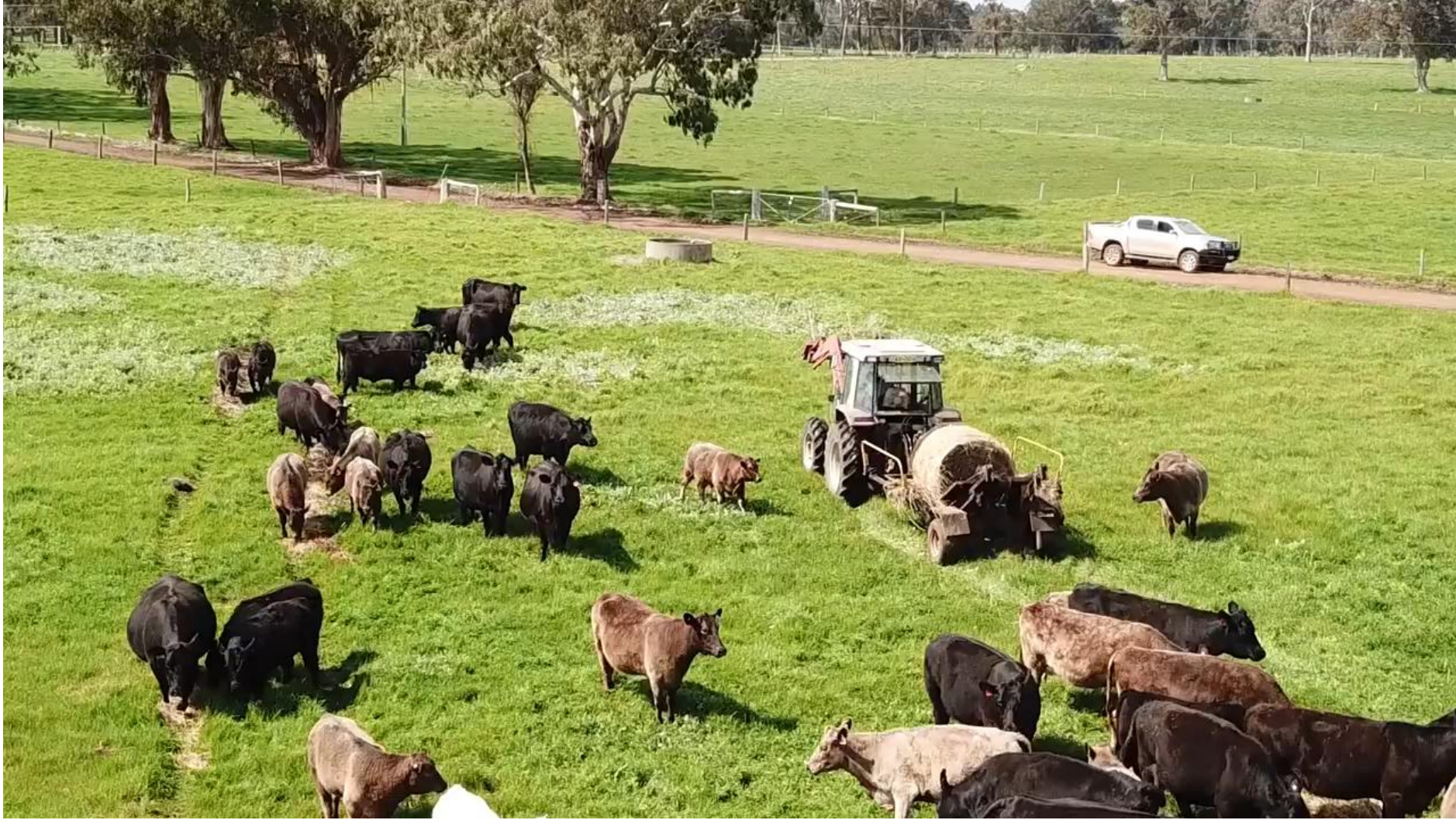
Processor relationships



Skill development: live animal assessment



Methods to analyse feedback – Livestock Data Link



Solutions to non-compliance: Genetics, nutrition, management, animal health



Tools to assess carcass feedback

- Livestock Data Link

LIVESTOCK DATA LINK



Workshop

Farm Assurance

31/12/2010

17/04/2019

HSCW (kg)

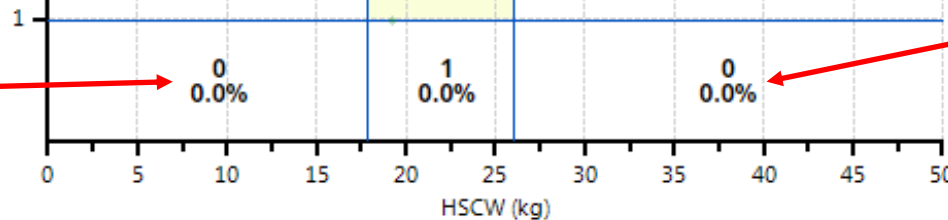
Discount

Carcase Analysis Report

Grid compliance to HSCW (kg) and Fat

Data >>>> Information >>>> Decisions

Too Light and
too lean



Too Heavy

Too Heavy and
too lean

How can I improve – Solutions to Feedback Library?

Home > Cattle > **Meat Standards Australia Grading**

AGE/DENTITION

BRUISING

CHILLER ASSESSMENT

DISEASE & DEFECT CONDITIONS

LEAN MEAT YIELD

MEAT STANDARDS AUSTRALIA
GRADING

■ MARBLING

■ MSA INDEX

■ MUSCLE PH

■ OSSIFICATION

FAT - RIB FAT THICKNESS AND
DISTRIBUTION

RESOURCES

WEIGHT AND FAT

Meat Standards Australia Grading

Click on the following links to access information on how to improve carcase compliance with Meat Standards Australia (MSA) grading:

- Muscle pH
- Ossification
- Marbling
- Fat - rib fat thickness and distribution
- MSA Index

WEIGHT AND FAT

AGE/DENTITION

LEAN MEAT YIELD

DISEASE & DEFECT CONDITIONS

RESOURCES



myMSA

Resources

BeefSpecs - A tool to assist meeting market specs

BeefSpecs calculator

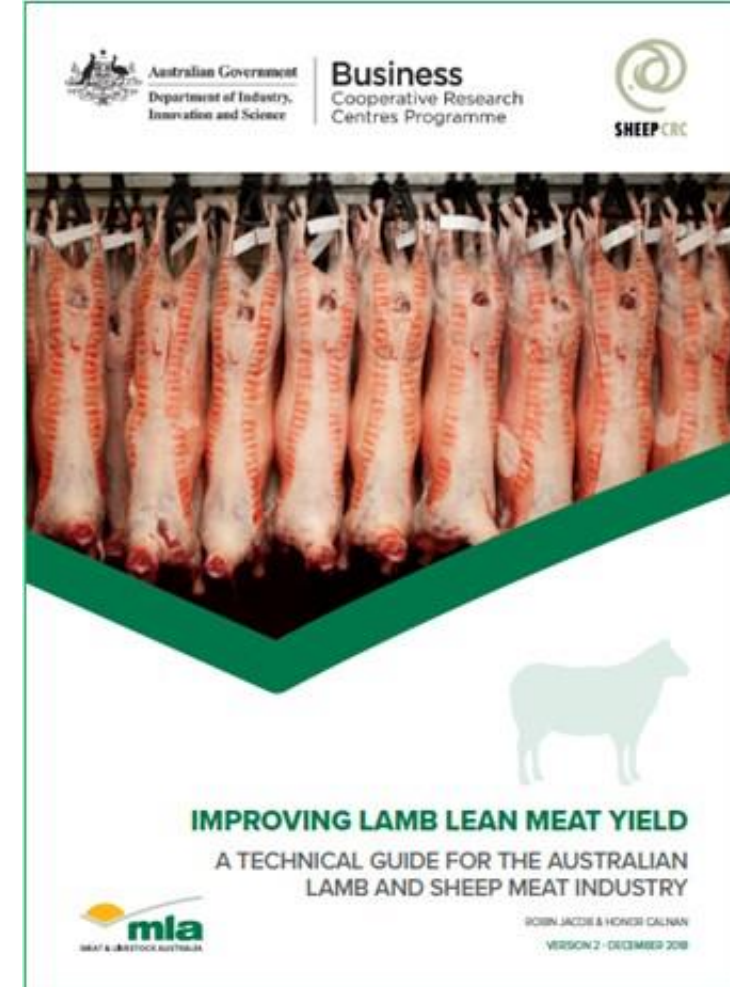
MSA Feedback support

Solutions to feedback (beef)

MSA grading glossary

myMSA support

myMSA help guide for Producers



Take home message *Holy-grail = VBM

$$\begin{array}{ccccccc} \text{Carcase value} & = & \text{Carcase Wt} & \times & \text{Lean Meat} & \times & \text{Eating} \\ (\$) & & & & \text{Yield} & & \text{Quality} \end{array}$$


The diagram illustrates the components of carcass value. On the left, the text 'Carcase value (\$)' is followed by an equals sign. To the right of the equals sign are three terms separated by multiplication symbols (X). The first term is 'Carcase Wt' with an image of a whole pig carcass above it. The second term is 'Lean Meat Yield' with an image of a cut of meat above it. The third term is 'Eating Quality' with an image of a group of people above it.

Need to be able measure these!

Key Messages

1. RELATIONSHIPS / TRUST
2. DATA – INFORMATION – DECISIONS
3. DO SOMETHING to increase compliance and profit
 - ✓ Genetics, nutrition, management, animal health, time of turnoff, change target market
 - ✓ Skill development, tools & resources, use of trusted advisers

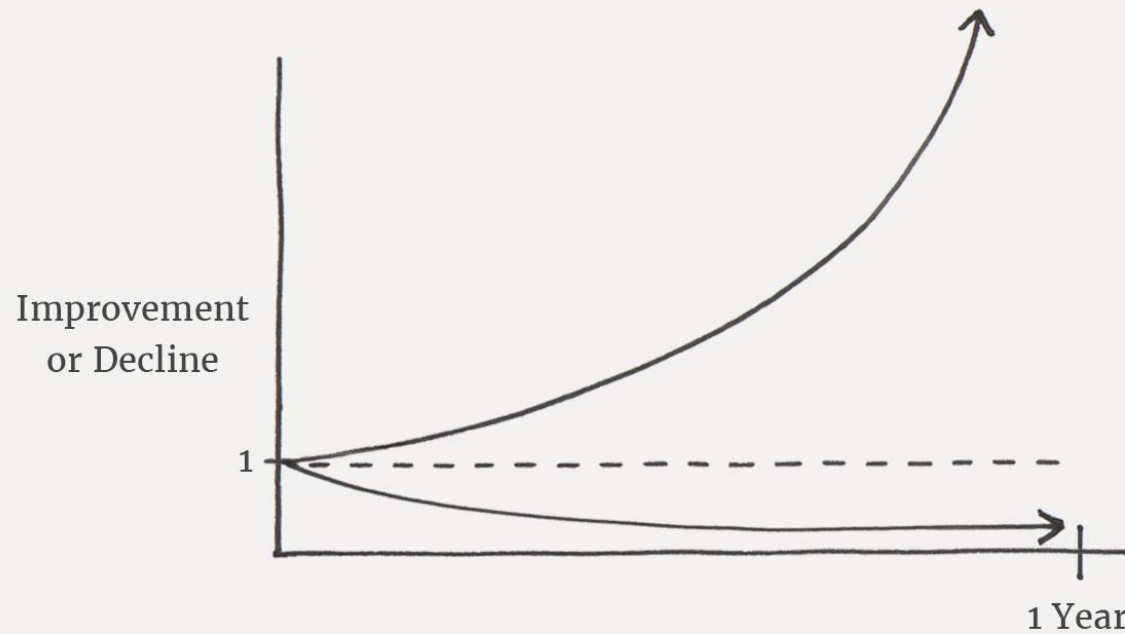
1% better
every day =
37% better
in 1 year!"

- James Clear
"Atomic Habits"

<https://jamesclear.com/>

The Power of Tiny Gains

1% better every day $1.01^{365} = 37.78$
1% worse every day $0.99^{365} = 0.03$



Tools and resources

- Meating the Market – Lamb Compliance PGS SLP

<https://www.mla.com.au/extension-training-and-tools/profitable-grazing-systems/>

- Lean meat yield technical manual (Sheep CRC)

<https://www.mla.com.au/globalassets/mla-corporate/marketing-beef-and-lamb/documents/meat-standards-australia/improving-lamb-lean-meat-yield-interactive-july-2019.pdf>

- Livestock Data Link

<https://www.integritysystems.com.au/data--feedback/livestock-data-link/>

<https://solutionstofeedback.mla.com.au/>

- Dexa

<https://www.mla.com.au/globalassets/mla-corporate/news-and-events/documents/dexa-factsheet-lr.pdf>

Tools and resources

- Making more from sheep – market focused lamb and sheepmeat
<http://www.makingmorefromsheep.com.au/market-focussed-lamb-and-sheepmeat-production/index.html>
- More beef from pastures – meeting market specifications
<https://mbfp.mla.com.au/meeting-market-specifications/>
- BeefSpecs Calculator: <http://beefspecs.agriculture.nsw.gov.au/>
- Meat Standards Australia: <https://www.mla.com.au/marketing-beef-and-lamb/meat-standards-australia/>
- ALMTech: <https://www.almtechau.com/#>
- Genetics: <https://genetics.mla.com.au/>