



MELBOURNE  
ROYAL  
BEEF CARCASE COMPETITION



2024 **Schedule**

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# Message from the *Chair*

The Melbourne Royal Beef Cattle Competition Committee is excited to welcome you back for 2024. The Melbourne Royal Beef Carcase Competition provides breeders, commercial producers and schools and colleges with the opportunity to network and benchmark the quality of their livestock in one of Australia's best-regarded competitions.

With more than 300 participants involved annually, the Beef Carcase Competition provides learning opportunities and industry insights into the science and skill required to breed cattle to suit the domestic and export markets.

I would like to thank our processing partner JBS Australia for their support of the Beef Carcase Competition. The new specifications for this year's competition align to optimum carcass requirements of the majority buyer (processor/supermarket). Bodies any lighter than the minimum specification are suitable for butcher trade buyers, and unfortunately without an auction, these buyers are incredibly hard to attract. Butcher Trade also often comes with custom processing which can result in utilising various sites. With the updated specifications, all animals will be processed at the one facility, increasing consistency of feedback and data.

I extend my thanks to the 2024 judges for their commitment to the Beef Carcase Competition at the Melbourne Royal Show. They bring immeasurable levels of experience and knowledge, and it is an honour to have them join us.

I also want to thank the Committee members, Duncan Newcomen, Allen Snaith, Gary Turnham, Sam Nelson, Cindy Smith, Matt Cooney, Jo McLauchlan and Jess Sharp. They are extremely committed to the core values of competition and judging. The Committee keeps the exhibitor value and experience at the heart of what we do.

We know this is an annual opportunity to catch up with great friends and I invite you to join us at Australia's first ringside bar and meeting place. It is my favourite place at the Show, a chance to catch up, compare notes and share successes, and I would love to see you there.

We are all excited to bring you a fantastic Melbourne Royal Show. I look forward to hosting you and your families and friends in 2024.

**David Bolton**  
Chair

# Important Information for *Exhibitors*

## Timetable

The timetable is subject to alteration and will be finalised once we have an indication of entry quantities for each breed. Refer to the timetable on page 6.

## Entry Fees

Detailed fee information can be found in the Special Regulations. Enter online at [www.melbournroyal.com.au/beef-carcase](http://www.melbournroyal.com.au/beef-carcase) to save!

- \$65 per head entry fee (Melbourne Royal Members)
- \$90 per head entry fee (Non-Members.)
- \$30 Administration fee (Enter online and save)
- \$70 per head bedding fee
- \$50 per entry for Steer Bonanza (see relevant section in Awards for Beef Carcase Competition). This fee is an optional fee in addition to the standard entry fee and allows you to be eligible for the Steer Bonanza cash prize pool.
- \$30 printed catalogue

## Truck Parking

This year Melbourne Royal will be running a free shuttle bus service between the truck and float carparks and Livestock Pavilion during designated arrival and departure times as listed on the timetable.

Truck parking fees for this year will be \$85.00 for the duration of competition.

## Catalogues

Catalogue can be downloaded free of charge from the Melbourne Royal website. Head to [www.melbournroyal.com.au/beef-carcase](http://www.melbournroyal.com.au/beef-carcase).

## Sand in the Livestock Pavilion

Please note that sand will be placed on the pavilion floor to address cattle slipping. Please refrain from sweeping and removing the sand from the pavilion floor.

## Sawdust Bedding for Cattle – Principles for Good Management

To achieve the best results from bedding cattle on sawdust, the following system of management is recommended:

- a Pick up manure at every opportunity.
- b Place hay in feeders and avoid feeding excessive amounts.
- c Avoid water spillage in stalls.
- d Regularly smooth out the bed with the aim of assisting drying.
- e Consider using rubber matting for front half of bed.
- f Do not dig out the wet patches.
- g Do not disturb the bedding base.
- h Keep the top of the bed loose.

Experience has shown that properly managed bedding will last a full Show with little need for top up bedding, particularly with some classes of livestock.

## Pesti Virus

Please note that all Beef Cattle, Beef Carcase and Dairy Cattle Exhibits must be tested for Pestivirus (Bovine Viral Diarrhoea Virus) and certified as Non-PI (Persistently Infected). Exhibitors must provide a signed veterinary certificate or laboratory report, listing animals and their identification upon entry.

# Important Information for Exhibitors

## Payments to Exhibitors for Carcasses

Melbourne Royal has engaged with AWN Nelson Livestock to settle the sale of the carcasses from the 2024 Melbourne Royal Show.

AWN Nelson Livestock will be issuing payments to all exhibitors on behalf of the processors and Melbourne Royal. Please note that payment will only be made via electronic funds transfer. Cheques will not be issued.

Melbourne Royal will provide JBS Australia with the EFT details you provided on your entry form. No payments will be made to third parties. All payments for carcasses will be paid to the bank account nominated to receive any competition prize money. All competition prize money will be paid by Melbourne Royal.

## Property Identification Code

The Property Identification Code of the Melbourne Showgrounds is 3MWAG001.

## Johne's Disease Status

All exhibitors are advised to review changes to the Melbourne Royal Show Johnes Disease Mangement detailed in the special regulations. Changes to Australian Johne's Disease Management are explained in further detail on the Animal Health Australia website.

## Breed Reference

AA – Angus	HI – Highland
AL – Australian Lowline	LL – Limousin
UU – Australian Red	LH – Longhorn (Texas)
AU – Australis South Devon/Angus	MU – Maine Anjou
BI – Bazadaise	MG – Murray Grey
BS – Beef Shorthorn	PZ – Pinzgauer
BL – Belgian Blue	PC – Poll Charolais
BA – Blonde d'Aquitaine	PD – Poll Devon
BF – Braford	PH – Poll Hereford
BB – Brahman	PS – Poll Shorthorn
BH – Brahmousin	RA – Red Angus
BG – Brangus	RP – Red Poll
BV – Braunvieh	SL – Salers
BU – British Blue	SG – Santa Gertrudis
BW – British White	SV – Shaver Beefblend
CB – Charbray	SS – Shorthorn
CC – Charolais	SI – Simmental
DD – Devon	SD – South Devon
DX – Dexter	SP – Speckle Park
DM – Droughtmaster	SQ – Square Meater
DU – Durham	OO – Unknown
GA – Galloway (including Belted)	WY – Wagyu
GV – Gelbvieh	WB – Welsh Black
HH – Hereford	

## Carcase Judging

Carcasses will be judged using the MSA Carcass Competition System. As in the past, all exhibits must be Meat Standards Australia (MSA) accredited. Classes will be as follows:

Category	Liveweight as recorded at Show	HSCW	P8	Rib
Domestic	400–480	220–270	6–15 mm	4–8 mm
Heavy Domestic	481–560	271–310	6–15 mm	5–10 mm
Export	561+	311+	6–22 mm	5–15 mm

# Timetable

<b>Wednesday 25 September</b>	
<b>Arrival all exhibits</b>	11:00am – 9:00pm
<b>Thursday 26 September</b>	
<b>School Teacher Meeting</b>	9:00am
<b>Friday 27 September</b>	
<b>School Teacher Meeting</b>	8:30am
<b>Weighing</b>	9:00am – 12:00pm
<b>Borthwick Nominations Close</b> Nominations returned to Livestock office	3:30pm
<b>Saturday 28 September</b>	
<b>Judging</b> Borthwick Trophy	1:30pm
<b>Judging</b> Led Steer and Heifer Competition	2:30pm
<b>Matthew George Presentation and Youth in Steers BBQ</b>	7:00pm
<b>Sunday 29 September</b>	
<b>Judging</b> School and College Paraders' Competition	11:00am – 3:30pm
<b>Steer Exhibitor Meeting and Presentation of Best Maintained Team Award</b> Halters are provided at meeting	4:00pm – 5:00pm
<b>Exhibitor Departure</b> Exhibitors are requested to replace their halters with rope halters in preparation for Exhibits' departure	5:00pm – 7:00pm
<b>Animal Departure</b> All Exhibits will be loaded by Melbourne Royal officials	10:00pm – 11:00pm
<b>Saturday 5 October</b>	
<b>Beef Carcase Awards Presentation</b> Presented in the Livestock Pavilion	3:00pm

# 2024 Melbourne Royal Beef Carcass *Competition*

## Entry

### 1 – CARCASS ENTRY

## Led

Once weighed at the Show, Exhibits will be assigned to an Ordinary Class Heat. Exhibitors will be advised of their Heat prior to judging.

### ORDINARY

#### LEDB01 – LED DOMESTIC (400KG TO 480KG) HEAT 1

Eligible Classes: 1

PRIZE: 1ST \$25, 2ND \$15, 3RD \$10, SASH

#### LEDB02 – LED DOMESTIC (400KG TO 480KG) HEAT 2

PRIZE: 1ST \$25, 2ND \$15, 3RD \$10, SASH

#### LEDB03 – LED DOMESTIC (400KG TO 480KG) HEAT 3

PRIZE: 1ST \$25, 2ND \$15, 3RD \$10, SASH

#### LEDB04 – LED DOMESTIC (400KG TO 480KG) HEAT 4

PRIZE: 1ST \$25, 2ND \$15, 3RD \$10, SASH

#### LEDC01 – LED HEAVY DOMESTIC (481KG TO 560KG) HEAT 1

Eligible Classes: 1

PRIZE: 1ST \$25, 2ND \$15, 3RD \$10, SASH

#### LEDC02 – LED HEAVY DOMESTIC (481KG TO 560KG) HEAT 2

PRIZE: 1ST \$25, 2ND \$15, 3RD \$10, SASH

#### LEDC03 – LED HEAVY DOMESTIC (481KG TO 560KG) HEAT 3

PRIZE: 1ST \$25, 2ND \$15, 3RD \$10, SASH

#### LEDC04 – LED HEAVY DOMESTIC (481KG TO 560KG) HEAT 4

PRIZE: 1ST \$25, 2ND \$15, 3RD \$10, SASH

#### LEDC05 – LED HEAVY DOMESTIC (481KG TO 560KG) HEAT 5

PRIZE: 1ST \$25, 2ND \$15, 3RD \$10, SASH

#### LEDC06 – LED HEAVY DOMESTIC (481KG TO 560KG) HEAT 6

PRIZE: 1ST \$25, 2ND \$15, 3RD \$10, SASH

#### LEDC07 – LED HEAVY DOMESTIC (481KG TO 560KG) HEAT 7

PRIZE: 1ST \$25, 2ND \$15, 3RD \$10, SASH

#### LEDD01 – LED EXPORT (561KG AND OVER) HEAT 1

Eligible Classes: 1

PRIZE: 1ST \$25, 2ND \$15, 3RD \$10, SASH

#### LEDD02 – LED EXPORT (561KG AND OVER) HEAT 2

PRIZE: 1ST \$25, 2ND \$15, 3RD \$10, SASH

#### LEDD03 – LED EXPORT (561KG AND OVER) HEAT 3

PRIZE: 1ST \$25, 2ND \$15, 3RD \$10, SASH

#### LEDD04 – LED EXPORT (561KG AND OVER) HEAT 4

PRIZE: 1ST \$25, 2ND \$15, 3RD \$10, SASH

#### LEDD05 – LED EXPORT (561KG AND OVER) HEAT 5

PRIZE: 1ST \$25, 2ND \$15, 3RD \$10, SASH

#### LEDD06 – LED EXPORT (561KG AND OVER) HEAT 6

PRIZE: 1ST \$25, 2ND \$15, 3RD \$10, SASH

#### LEDD07 – LED EXPORT (561KG AND OVER) HEAT 7

PRIZE: 1ST \$25, 2ND \$15, 3RD \$10, SASH

### SPECIAL

#### LED1S – CHAMPION DOMESTIC STEER OR HEIFER

Eligible Classes: LEDB01 – LEDB04

PRIZE: 1ST SASH

#### LED2S – RESERVE CHAMPION DOMESTIC STEER OR HEIFER

Eligible Classes: LED1S

PRIZE: 1ST SASH

#### LED3S – CHAMPION HEAVY DOMESTIC STEER OR HEIFER

Eligible Classes: LEDC01 – LEDC07

PRIZE: 1ST SASH

#### LED4S – RESERVE CHAMPION HEAVY DOMESTIC STEER OR HEIFER

Eligible Classes: LED3S

PRIZE: 1ST SASH

#### LED5S – CHAMPION EXPORT STEER OR HEIFER

Eligible Classes: LEDD01 – LEDD07

PRIZE: 1ST SASH

#### LED6S – RESERVE CHAMPION EXPORT STEER OR HEIFER

Eligible Classes: LED5S

PRIZE: 1ST SASH

#### LED7S – GRAND CHAMPION STEER OR HEIFER

Eligible Classes: LED1S, LED3S, LED5S

PRIZE: 1ST SASH

#### LED8S – CHAMPION SCHOOL AND COLLEGE STEER OR HEIFER

Eligible Classes: LEDB01 – LEDB04, LEDC01 – LEDC07,

LEDD01 – LEDD07

PRIZE: 1ST SASH

#### LED9S – RESERVE CHAMPION SCHOOLS AND COLLEGE STEER OR HEIFER

Eligible Classes: LED8S

PRIZE: 1ST SASH

# 2024 Melbourne Royal Beef Carcase Competition

## LED10S – BEST MAINTAINED TEAM

Awarded by the Melbourne Royal Beef Cattle Committee to the Best Maintained Team (Non School Exhibitor or College). This award recognises and rewards the presentation of the cattle display to the general public.  
PRIZE: 1ST WALL PLAQUE

## School & College

Exhibitors are required to nominate an Ordinary Class Heat based on the age of the Parader.

### ORDINARY

#### SCH1 – PARADERS ENTRY

Parader born on or before 26 Sep 2016

### JUNIOR

#### SCH-H1 – PARADERS HEAT 1, 12 YEARS AND UNDER

Parader born on or after 27 Sep 2011

Eligible Classes: SCH1

#### SCH-H2 – PARADERS HEAT 2, 12 YEARS AND UNDER

Parader born on or after 27 Sep 2011

Eligible Classes: SCH1

#### SCH-H3 – PARADERS HEAT 3, 13 TO 14 YEARS

Parader born on or between 27 Sep 2009 and 26 Sep 2011

Eligible Classes: SCH1

#### SCH-H4 – PARADERS HEAT 4, 13 TO 14 YEARS

Parader born on or between 27 Sep 2009 and 26 Sep 2011

Eligible Classes: SCH1

#### SCH-H5 – PARADERS HEAT 5, 13 TO 14 YEARS

Parader born on or between 27 Sep 2009 and 26 Sep 2011

Eligible Classes: SCH1

#### SCH-H6 – PARADERS HEAT 6, 13 TO 14 YEARS

Parader born on or between 27 Sep 2009 and 26 Sep 2011

Eligible Classes: SCH1

#### SCH-H7 – PARADERS HEAT 7, 13 TO 14 YEARS

Parader born on or between 27 Sep 2009 and 26 Sep 2011

Eligible Classes: SCH1

#### SCH1S – JUNIOR CHAMPION SCHOOLS AND COLLEGE STEER OR HEIFER PARADER

Eligible Classes: SCH-H1 – SCH-H7

PRIZE: 1ST SASH

#### SCH2S – RESERVE JUNIOR CHAMPION SCHOOLS AND COLLEGE STEER OR HEIFER PARADER

Eligible Classes: SCH1S

PRIZE: 1ST SASH

### INTERMEDIATE

#### SCH-H8 – PARADERS HEAT 8, 15 TO 16 YEARS

Parader born on or between 27 Sep 2007 and 26 Sep 2009

Eligible Classes: SCH1

#### SCH-H9 – PARADERS HEAT 9, 15 TO 16 YEARS

Parader born on or between 27 Sep 2007 and 26 Sep 2009

Eligible Classes: SCH1

#### SCH-H10 – PARADERS HEAT 10, 15 TO 16 YEARS

Parader born on or between 27 Sep 2007 and 26 Sep 2009

Eligible Classes: SCH1

#### SCH-H11 – PARADERS HEAT 11, 15 TO 16 YEARS

Parader born on or between 27 Sep 2007 and 26 Sep 2009

Eligible Classes: SCH1

#### SCH-H12 – PARADERS HEAT 12, 15 TO 16 YEARS

Parader born on or between 27 Sep 2007 and 26 Sep 2009

Eligible Classes: SCH1

#### SCH-H13 – PARADERS HEAT 13, 15 TO 16 YEARS

Parader born on or between 27 Sep 2007 and 26 Sep 2009

Eligible Classes: SCH1

#### SCH-H14 – PARADERS HEAT 14, 15 TO 16 YEARS

Parader born on or between 27 Sep 2007 and 26 Sep 2009

Eligible Classes: SCH1

#### SCH3S – INTERMEDIATE CHAMPION SCHOOLS AND COLLEGE STEER OR HEIFER PARADER

Eligible Classes: SCH-H8 – SCH-H14

PRIZE: 1ST SASH

#### SCH4S – RESERVE INTERMEDIATE CHAMPION SCHOOLS AND COLLEGE STEER OR HEIFER PARADER

Eligible Classes: SCH3S

PRIZE: 1ST SASH

### SENIOR

#### SCH-H15 – PARADERS HEAT 15, 17 TO 18 YEARS

Parader born on or between 27 Sep 2005 and 26 Sep 2007

Eligible Classes: SCH1

#### SCH-H16 – PARADERS HEAT 16, 17 TO 18 YEARS

Parader born on or between 27 Sep 2005 and 26 Sep 2007

Eligible Classes: SCH1

#### SCH-H17 – PARADERS HEAT 17, 17 TO 18 YEARS

Parader born on or between 27 Sep 2005 and 26 Sep 2007

Eligible Classes: SCH1

#### SCH-H18 – PARADERS HEAT 18, 17 TO 18 YEARS

Parader born on or between 27 Sep 2005 and 26 Sep 2007

Eligible Classes: SCH1

#### SCH-H19 – PARADERS HEAT 19, 19 YEARS AND OVER

Parader born before 26 Sep 2005

Eligible Classes: SCH1

#### SCH-H20 – PARADERS HEAT 20, 19 YEARS AND OVER

Parader born before 26 Sep 2005

Eligible Classes: SCH1

#### SCH-H21 – PARADERS HEAT 21, 19 YEARS AND OVER

Parader born before 26 Sep 2005

Eligible Classes: SCH1

#### SCH5S – SENIOR CHAMPION SCHOOLS AND COLLEGE STEER OR HEIFER PARADER

Eligible Classes: SCH-H15 – SCH-H21

PRIZE: 1ST SASH

#### SCH6S – RESERVE SENIOR CHAMPION SCHOOLS AND COLLEGE STEER OR HEIFER PARADER

Eligible Classes: SCH5S

PRIZE: 1ST SASH



# 2023 Melbourne Royal Beef Carcase Competition

## SPECIAL

### SCH7S – THE BOTT-BURSTON PERPETUAL TROPHY

The Bott-Burston perpetual trophy plus an annual replica will be awarded to the Most Successful School or College Hoof & Hook Exhibitor, gaining the highest total number of points in the School & College Paraders. Live Steer and Heifer, and Beef Carcase classes (Refer to Special Regulations).

PRIZE: 1ST PERPETUAL TROPHY, PRODUCT, SASH

### SCH8S – THE MARCUS OLDHAM COLLEGE TROPHY

Champion School and College Carcase

Eligible Classes: CARB, CARC, CARD

PRIZE: 1ST PERPETUAL TROPHY, SASH, WALL PLAQUE

The Marcus Oldham College Perpetual Trophy will be awarded to the highest scoring carcase entered by a School or College. The trophy will remain in the possession of Melbourne Royal and a replica will be presented to the winning School or College.

### SCH9S – THE MELBOURNE POLYTECHNIC TROPHY

The Melbourne Polytechnic Perpetual Trophy will be awarded to the highest scoring School or College bred and prepared carcase. The trophy will remain in the possession of Melbourne Royal, and a replica will be presented to the winning School or College.

Eligible Classes: CARB, CARC, CARD

PRIZE: 1ST PERPETUAL TROPHY, SASH

### SCH11S – BEST MAINTAINED SCHOOL OR COLLEGE EXHIBITOR

Awarded by the Melbourne Royal Beef Cattle Committee to the Best Maintained School or College Exhibitor. This award recognises and rewards the presentation of the cattle display to the general public.

PRIZE: 1ST WALL PLAQUE

## Carcase

Once processed, Exhibits will be assigned to an Ordinary Class.

## ORDINARY

### CARB – CARCASE DOMESTIC (400KG TO 480KG)

Eligible Classes: 1

PRIZE: 1ST \$300, 2ND \$150, 3RD \$50

### CARC – CARCASE HEAVY DOMESTIC (481KG TO 560KG)

Eligible Classes: 1

PRIZE: 1ST \$300, 2ND \$150, 3RD \$50

### CARD – CARCASE EXPORT (561KG AND OVER)

Eligible Classes: 1

PRIZE: 1ST \$300, 2ND \$150, 3RD \$50

## SPECIAL

### CAR1S – CHAMPION DOMESTIC CARCASE

Eligible Classes: CARB

PRIZE: 1ST SASH, TROPHY

### CAR2S – CHAMPION HEAVY DOMESTIC CARCASE

Eligible Classes: CARC

PRIZE: 1ST SASH, TROPHY

### CAR3S – CHAMPION EXPORT CARCASE

Eligible Classes: CARD

PRIZE: 1ST SASH, TROPHY

### CAR4S – GRAND CHAMPION CARCASE

Eligible Classes: CAR1S, CAR2S, CAR3S

PRIZE: 1ST \$1,000, SASH, TROPHY

## Supreme Sire Award

### SSA01 – THE WELLCOM SUPREME SIRE AWARD

**Supreme Sire Award – Recognising the Beef Industries ‘Best of the Best’**

The Supreme Sire Award provides an opportunity for exhibitors to display the commercial traits of their herd and be awarded for showcasing high quality beef genetics.

The \$10,000 award will be won if the same sire sires the Supreme Champion Beef Breed Exhibit and the Grand Champion Carcase. In any one year of the Melbourne Royal Show, the Grand Champion Carcase must be either entered, managed or bred by the exhibitor of the winning Supreme Champion Beef Breed Exhibit.

#### Regulations:

1. The exhibitor is responsible for notifying Melbourne Royal prior to the Show if they have animals entered in the Beef Cattle and Beef Carcase Competitions indicating the Sire that may be eligible for the Award.
2. The Sire must be a fully registered animal with the applicable breed society.
3. For the Grand Champion Carcase animal to be eligible to compete for the award, the animal must be either:
  - a. Entered and solely owned by the exhibitor who wins the Supreme Beef Breed Exhibit
  - b. Co-owned in a partnership with the exhibitor who wins the Supreme Beef Breed Exhibit
  - c. Entered by a School or College, with the exhibitor who wins the Supreme Beef Breed Exhibit listed as the original breeder of that animal

In all cases, the exhibitor **must be either listed as a co-owner or recognised as the original breeder upon entry into the Beef Carcase Competition.**

1. Melbourne Royal will collect either hair or blood samples from Beef Carcase Exhibit(s) that have been entered into the award at the Showgrounds. This sample will be stored until the results of the Beef Cattle Competition have been finalised.

# 2024 Melbourne Royal Beef Carcase Competition

- At the conclusion of Beef Cattle Interbreed, if the Supreme Beef Breed Exhibit has been nominated as eligible for the Supreme Sire Award, Melbourne Royal will collect either hair or blood samples to be used for DNA validation of the award.
- In the event that the award appears won, the winning exhibitor is responsible for providing a verified DNA sample of the nominated Sire and the Dam(s) of the winning animals after they have been announced the winner of the Supreme Beef Breed Exhibit and Grand Champion Carcase.
- For sires that have already been DNA Profiled, exhibitor must provide Melbourne Royal permission to access the DNA profile if they own the profile, or arrange for the owning breed society to grant permission.
- The Melbourne Royal will arrange for DNA testing of all samples.
- Any animal which is deemed unable to be DNA referenced will be ineligible for the competition.
- Melbourne Royal and associated DNA testing company will decide upon the validity of the DNA test.
- The \$10,000 bursary will only be provided to the exhibitor of the Supreme Beef Breed Exhibit and Grand Champion Carcase at the conclusion of the DNA test results.
- In the event of the award being won, Melbourne Royal will award prize money to the one winning exhibitor. The exhibitor who receives the Wellcom \$10,000 cash prize is at their own discretion, responsible for allocating funds to any third party involved in the breeding and preparation of the winning exhibits.
- The \$10,000 bursary will remain in trust with the Melbourne Royal until such a time as it is won by an exhibitor.

In an effort to ensure the integrity of the competition, the above listed rules may be subject to change prior to the close of entries into the 2024 Competition.

## Steer Bonanza

Refer to the Special Regulations for further details.

### **BON01 – STEER BONANZA**

PRIZE: 1ST \$650, SASH, 2ND \$390, SASH, 3RD \$260, SASH

## The Borthwick Trophy

Refer to the Special Regulations for further details.

### **BORSEL – THE BORTHWICK TEAM – SELECTION**

Eligible Classes: 1

### **BOR1S – THE BORTHWICK TEAM – LIVE JUDGING**

Eligible Classes: BORSEL

### **BOR2S – THE BORTHWICK TEAM – CARCASE JUDGING**

Eligible Classes: BOR1S

### **BOR3S – THE BORTHWICK TROPHY**

The Borthwick Trophy is widely recognised as the most prestigious interbreed steer and carcase award in Australia. The conditions of the competition are as under:

- The competition to be between teams of three purebred steers. Heifers are not eligible for the Borthwick Trophy.
- Steers to be led into the judging ring.
- Each team to be representative of any recognised Beef Cattle Breed.
- Each team to be selected from amongst the entries in the ordinary classes by a Breed Panel prior to live judging of these classes.
- Each breed to be represented by one team only.
- The results of both live and carcase judging will be considered in determining the winner of the Borthwick Trophy, with 25% of total points allocated for live judging and 75% of total points allocated for carcase appraisal. (Maximum points awarded by live judge – 100 points).
- Points gained by the steers in the carcase judging (maximum 300 points) to be added to the points awarded alive.
- The winner of the Borthwick Trophy will be the team that gains the highest aggregate points in both the live and carcase judging. (Maximum 400 points).
- The Borthwick Trophy to be competed for in perpetuity, and the name of the winning breed to be engraved on it each year. The Trophy to remain the property of The Royal Agricultural Society of Victoria Limited.

A replica of the trophy will be presented to each of the Exhibitors of the winning team.

### **Past Winners:**

1953 Angus; 1954 Angus; 1955 Angus; 1956 Hereford; 1957 Angus; 1958 Angus; 1959 Angus; 1960 Poll Hereford; 1961 Angus; 1962 Poll Hereford; 1963 Angus; 1964 Angus; 1965 Angus; 1966 Angus; 1967 Murray Grey; 1968 Angus; 1969 Poll Shorthorn; 1970 Poll Shorthorn; 1971 Hereford; 1972 Murray Grey; 1973 Murray Grey; 1974 Angus; 1975 Murray Grey; 1976 Murray Grey; 1977 Murray Grey; 1978 Galloway; 1979 Galloway; 1980 Galloway; 1981 Murray Grey; 1982 Angus; 1983 Hereford; 1984 Angus; 1985 Poll Hereford; 1986 Angus; 1987 Angus; 1988 Angus; 1989 Angus; 1990 Murray Grey; 1991 Charolais; 1992 Charolais; 1993 Murray Grey; 1994 Murray Grey; 1995 Murray Grey; 1996 Murray Grey; 1997 Hereford; 1998 Shorthorn; 1999 Angus; 2000 Murray Grey; 2001 Shorthorn; 2002 Shorthorn; 2003 Shorthorn; 2004 Murray Grey; 2005 Charolais; 2006 Charolais; 2007 Charolais; 2008 Charolais; 2009 Limousin; 2010 Simmental; 2011 Limousin; 2012 Limousin; 2013 South Devon; 2014 Angus; 2015 Simmental; 2016 Shorthorn; 2017 Shorthorn; 2018 Limousin; 2019 Limousin; 2020 Australian Shorthorn; 2021 No Show; 2022 ; 2023 Limousin  
Eligible Classes: BOR2S  
PRIZE: 1ST PERPETUAL TROPHY

# How to Improve Your Score

The feedback from your score sheet provides a great deal of information and can identify areas for future improvement. When preparing cattle for a competition, remember that high scores come from three main factors:

- Meeting the weight, fat, sex and dentition specifications of the class
- High yield of saleable meat – optimum fat cover and heavy muscling
- High eating quality – young and well nourished, not stressed, with marbling as a bonus

An “average” young animal will achieve a high score if it is fed well in the final six weeks, it is not excessively stressed in the 24 hours before slaughter and it meets the correct weight and fat specifications. Very high scores are possible by retaining these features and increasing saleable meat yield.

## 1. Meeting market specifications

**Key indicators: HSCW; sex; dentition; P8 fat depth; Meat colour; Fat colour.**

Meeting the weight/fat target is the key starting point for achieving a high score. Achieving a weight and fat target is a complex combination of management and animal factors – frame size, muscling, genetics – and nutrition. Heavily muscled or large framed cattle require higher level of nutrition (and/or a longer time) to put on the same fat depth.

Optimal meat colour comes from cattle that are younger, have high levels of nutrition and low pre-slaughter stress (see meat quality).

Ideal fat colour (firm and white) results from feeding a grain-based ration. Young, grass-fed cattle produce a creamy-white fat colour, which is highly acceptable for most markets. Deeper yellow fat is undesirable and comes with older, grass-fed cattle.

Some feeds can change the characteristics of fat, for example, large amounts of lupins can produce fat that is soft and greasy.

## 2. Improving lean muscle yield

**Key indicators: Eye-muscle area (EMA), rib fat depth.**

“Yield” is the weight of saleable cuts as a percentage of carcass weight. It is not to be confused with dressing percentage which is the ratio of carcass to live weight. High-yielding carcasses are heavily muscled with optimum fat depth.

Among cattle meeting market specifications and minimum quality requirements for grading, the greatest potential to improve your score is by increasing yield. CRC research confirms that high yielding carcasses contain significantly more beef.

Ensure fat depth is within the optimum specifications – this will maximize your yield points with the particular animal. Overfat carcasses require more trimming, resulting in lower yield.

To increase lean muscle yield it is important to optimize fat depth and EMA. Consider these points:

- Crossbreed, using high-yielding sire breeds
- Select bulls for moderate frame and heavy muscling, either visually or with help from BREEDPLAN EBVs for higher yield and EMA
- Heavily muscled cattle occur in most breeds, you don't have to use large European types
- More muscular cattle usually put on less fat, especially if they are large framed – they may need more feed or longer preparation time to reach the target fat depth
- Females from heavily muscled bulls are just as functional for breeding, as long as you avoid the extremes.

# How to Improve Your Score

## 3. Improving eating quality

**Key indicators: pH, Ossification score, Tropical Breed Content, Hump height, Marbling**

The above key indicators along with other factors such as hanging method and ageing combine to produce the final eating quality score. As some factors interact with others, it is not possible to allocate points independently to each factor.

A score of zero in this section means the carcass failed to meet one or more of the minimum requirements for grading. This does not mean the beef has no value, but does mean its value has been severely downgraded against the industry's minimum quality benchmark.

If you received zero in the eating quality section, use the individual feedback assessments to identify the reason. It may be pH over 5.70, rib fat depth less than 3mm or inadequate fat distribution. Any of these factors will result in a complete loss of meat quality points, and should be given highest priority for correction in the future.

High pH is a sign of pre-slaughter stress and low energy reserves at slaughter. Ensure as a minimum that nutrition is kept at a high level in the two weeks prior to slaughter, the animal has a quiet temperament and there is minimum handling and minimum time between farm and slaughter.

Inadequate rib fat or fat distribution – feed a better quality ration with sufficient energy or feed for longer prior to slaughter.

Once the carcass has met minimum grading requirements the best ways to maximize your eating quality score are:

- Ensure optimum pH (5.4-5.6) by building up energy reserves before slaughter (good nutrition, minimum stress, avoid mixing with strange cattle, minimise handling, minimum time from farm to slaughter)
- Minimise the tropical breed content (hump height)
- Do not use hormonal growth promotants (HGPs)
- Increase marbling by using proven genetics (BREEDPLAN EBVs and GeneStar Marbling)

- Ensure good growth, without setbacks, and a fat cover near the top of the optimum range
- Aim for lower ossification score by faster growth for age

Apart from these animal factors, research by the Beef CRC and MSA has defined other significant factors that can be used to improve meat quality. These are either included in MSA grading requirements or the variable factors in the meat quality calculation. They include:

- Minimising pre-slaughter stress by conducting necessary pre-slaughter assessments well beforehand (say 2 weeks), and transporting cattle direct to the abattoir for slaughter without delay
- Ensuring chilling and electrical stimulation are operated by the abattoir to optimum specifications
- Hanging carcasses by tenderstretch to improve the eating quality of most major cuts and reduce the need for ageing
- Ageing cuts after slaughter to increase tenderness.

## Further information

- Meat Standards Australia – [www.mla.com.au/marketing-beef-and-lamb](http://www.mla.com.au/marketing-beef-and-lamb)
- Beef CRC – <http://www.beefcrc.com.au>
- NSW Department of Primary Industries – [www.dpi.nsw.gov.au](http://www.dpi.nsw.gov.au)

It is important to remember that to receive Eating Quality points, carcasses must meet MSA minimum standards:

- Minimum 3mm of rib fat
- Adequate fat distribution
- Ultimate pH below 5.71

# Conditional Prizes

Melbourne Royal is pleased to advertise the following conditional prize money on behalf of each breed society. These prizes will be paid directly by each society to the eligible exhibitors.

Any breed society wishing to advertise their conditional prize money is invited to contact Melbourne Royal on (03) 9281 7444. Exhibitors wishing to enquire about the listed prizes are advised to contact their relevant breed society directly.

## AUSTRALIAN LOWLINES



L O W L I N E

PRIZE: \$500 SUPPORTED BY **AUSTRALIAN LOWLINE CATTLE ASSOCIATION** if Australian Lowline Sire or Dam to win Grand Champion Carcase.

## BEEF SHORTHORN



PRIZE: **JOHN WILLIAMSON MEMORIAL TROPHY** SUPPORTED BY THE **BEEF SHORTHORN SOCIETY OF AUSTRALIA (VICTORIAN BRANCH)**.

Awarded to the Exhibitor of the Beef Shorthorn gaining the highest points for a carcass across all classes combined.

PRIZE: \$200 SUPPORTED BY THE **BEEF SHORTHORN SOCIETY OF AUSTRALIA (FEDERAL COUNCIL)**

Awarded to the Exhibitor of any winning animal in the live judging provided it is a Beef Shorthorn or Beef Shorthorn cross and is the progeny of or by a registered Beef Shorthorn sire or dam.

PRIZE: \$200 SUPPORTED BY THE **BEEF SHORTHORN SOCIETY OF AUSTRALIA (FEDERAL COUNCIL)**

Awarded to the highest scoring Beef Shorthorn or Australian Shorthorn or cross-bred steer or heifer carcass, where either the sire or dam is a registered Beef or Australian Shorthorn and provided that a minimum score of 75 points or more is achieved (highest scoring over all classes)

PRIZE: \$500 SUPPORTED BY THE **BEEF SHORTHORN SOCIETY OF AUSTRALIA (FEDERAL COUNCIL)**

Awarded to the Exhibitor of the Champion Steer on Hoof and Hook combined. Prize money to a maximum of \$500 only.

## BELTED GALLOWAY



Australian Belted Galloway Association Inc

THE FOLLOWING PRIZES ARE SUPPORTED BY THE **AUSTRALIAN BELTED GALLOWAY ASSOCIATION INC.**

PRIZE: \$50 awarded to the exhibitor of the highest scoring purebred or crossbred Belted Galloway Carcass provided that it is the progeny of a parent that is actively registered with the Australian Belted Galloway Association Inc.

PRIZE: \$150 awarded to each exhibitor of purebred Belted Galloway Carcass provided the carcass gains 85 points or higher provided it is the progeny of a parent that is actively registered with the Australian Belted Galloway Association Inc.

## Conditional Prizes

PRIZE: \$500 awarded to the exhibitor of the Grand Champion Carcase provided it is a purebred Belted Galloway and is the progeny of a parent that is actively registered with the Australian Belted Galloway Association Inc and also gains the Grand Champion Steer or Hoof Award.

PRIZE: \$500 awarded to the exhibitor of the Grand Champion Steer provided it is a purebred Belted Galloway and is the progeny of a parent that is actively registered with the Australian Belted Galloway Association Inc and also gains the Grand Champion Steer and Hoof Award.

### CHAROLAIS

Cross into profit



## Charolais

THE FOLLOWING PRIZE IS SUPPORTED BY THE **CHAROLAIS SOCIETY OF AUSTRALIA**

PRIZE: \$400 Awarded to the Exhibitor of the Grand Champion Carcase, provided such Exhibit is sired by a Charolais.

### GALLOWAY

THE FOLLOWING PRIZE IS SUPPORTED BY **THE AUSTRALIAN GALLOWAY ASSOCIATION**

PRIZE: \$550 Awarded to the Champion Carcase provided it has a parent which is registered with the AGA.

### MURRAY GREY



THE FOLLOWING PRIZES ARE SUPPORTED BY **THE MURRAY GREY BEEF CATTLE SOCIETY.**

To be eligible to receive the prize money that the MGBCS is offering all winning steers/heifers must be by a registered Murray Grey Beef Cattle Society Sire, as indicated on their entry form.

PRIZE: \$250 Awarded to the School exhibiting the Highest scoring Murray Grey on hoof and hook combined.

PRIZE: \$250 Awarded to the Highest Scoring Murray Grey School Carcase.

PRIZE: \$250 Awarded to the Highest Scoring Murray Grey Carcase

PRIZE: \$250 Awarded to the Champion Light Domestic Steer

PRIZE: \$250 Awarded to the Champion Heavy Domestic Steer

PRIZE: \$250 Awarded to the Champion Export Steer

PRIZE: \$250 Awarded to the Champion Light Domestic Carcase

PRIZE: \$250 Awarded to the Champion Heavy Domestic Carcase

PRIZE: \$250 Awarded to the Champion Export Carcase

PRIZE: \$1000 Awarded to the Grand Champion Carcase

PRIZE: \$1000 Awarded to the Grand Champion Steer

## Conditional Prizes



THE FOLLOWING PRIZES ARE SUPPORTED BY **THE LATE MRS JOAN HEARD & MURIEL MORRISH – ROCKYLEIGH MURRAY GREYS** and administered by the Murray Grey Association Australia

The entrant must notify the Murray Grey Association Australia Inc (MGAA) of their entry including the sire or dam that is the purebred prior to closure of entries.

The carcass competition must be run by a registered Agricultural Show or acceptable beef promotion competition. The winner does not have to belong to the MGAA.

The prize winner must agree to featuring in promotional material supporting the class win.

Once the entrant is deemed a carcass class winner, a copy of the result is to be forwarded to the MGAA and the MGAA will confirm this and send it to Rockyleigh to claim the prize money.

PRIZE: \$500 for a carcass win

or

PRIZE: \$300 for the highest placed Murray Grey carcass (but not winning)

PRIZE: \$200 for the second highest placed Murray Grey carcass

PRIZE: \$100 for the third highest placed Murray Grey carcass

The carcasses must be from pure breed Murray Greys (93.5% pure) stud or commercial and score a minimum 82 points on the Australian Beef Carcass Appraisal System. Prizes are available for all three carcass categories.

## RED POLL



THE FOLLOWING PRIZE IS SUPPORTED BY **THE AUSTRALIAN RED POLL CATTLE BREEDERS INC. (VICTORIAN REGION)**

PRIZE: \$250 Awarded to the Exhibitor of the Grand Champion Carcass, provided such exhibit is a purebred Red Poll by a registered sire.

THE FOLLOWING PRIZE IS SUPPORTED BY **F & A MOYA**

PRIZE: TIRASLEA RED POLLS \$200 Awarded to the Exhibitor of the Highest Scoring pure bred or at least 50% Red Poll Steer.

## SANTA GERTRUDIS



THE FOLLOWING PRIZES ARE SUPPORTED BY **THE SANTA GERTRUDIS BREEDERS (AUST) ASSOCIATION.**

PRIZE: \$500 if there are greater than 50 head entered and \$250 if there are under 50 head entered, providing the winning entry is of predominantly Santa Gertrudis blood and showing Santa Gertrudis characteristics.

## Conditional Prizes

### SIMMENTAL



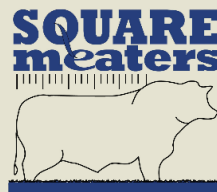
#### THE FOLLOWING PRIZES ARE SUPPORTED BY SIMMENTAL AUSTRALIA VICTORIAN BRANCH

PRIZE: \$500 Awarded to the exhibitor of the Grand Champion Led Steer or Heifer, provided the winning led animal is nominated on the entry form as Simmental (SI), Simmental Cross, Simbrah, Simbeef or Simangus (must be 25% or more Simmental) and be sired by a A.S.B.A Registered Simmental bull.

PRIZE: \$500 Awarded to the exhibitor of the Grand Champion Carcase on the Hook, provided the winning led animal is nominated on the entry form as Simmental (SI), Simmental Cross, Simbrah, Simbeef or Simangus (must be 25% or more Simmental) and be sired by a A.S.B.A Registered Simmental bull.

PRIZE: \$400 per exhibit Awarded to the exhibitor(s) of the Simmental exhibit, winning the Borthwick Trophy, provided the winning carcass is nominated on the entry form as Simmental (SI). No heifers permitted and entry must be a purebred animal registered on the ASBA register.

### SQUARE MEATER



#### THE FOLLOWING PRIZES ARE SUPPORTED BY THE SQUARE MEATERS CATTLE ASSOCIATION OF AUSTRALIA LTD.

PRIZE: \$100 Awarded to the Exhibitor of the highest scoring Square Meaters Steer or Heifer.

Prize: \$100 awarded to the SMCAA Member who exhibits highest scoring Square Meaters steer 85 points and over, providing it is nominated as a Square Meaters or Square Meaters cross, the exhibit to be by a registered bull.



# MSA Carcase Competition



MSA Carcase Competition System developed to provide feedback and reports to participants about compliance against market categories, eating quality (MSA Index) and lean meat yield for both domestic and export cattle. The appraisal system used for this competition has been designed by committee to meet optimal specifications for both domestic and export markets.

The committee for the Melbourne Royal beef carcase competition comprises of beef industry representatives, processor representatives and producers.

## 1. Compliance to Market Specifications (30 points total)

Most markets require carcasses to meet basic specifications of age (dentition), sex, weight and P8 (rump) fat depth. Dentition is usually checked in the live cattle, and is not part of the carcase assessment, while some markets specify only steers.

**1.1 – P8 Fat Depth** is measured on the hot carcase at the P8 site, over the rump, and is the method of describing fatness in the AUS-MEAT national carcase description language. It is commonly used to set market targets and for payment of premiums and discounts. Optimum P8 fat depth is the range set for each class (Market Category) in the carcase specifications.

**1.2 – Meat Colour** is recorded using AUS-MEAT standard meat colour chips in a range of 1a (very pale) to 7 (very dark purple). Colour strongly influences consumer appeal, with bright, pinkish colours in the range 1b to 3 being most acceptable to consumers.

**1.3 – Rib Fat Depth** is primarily used as an indicator of market specification, but it also plays two roles in eating quality.

Firstly, MSA requires a minimum of 3mm of subcutaneous fat at the quartering site with even fat distribution required over the entire body. This fat cover helps avoid eating quality problems caused by a rapid or irregular pattern of chilling (see fat distribution).

Secondly, fatter carcasses have slightly improved eating quality, over and above that associated with marbling and in this case a small upward adjustment is made to the grilling cuts.

**1.4 – Fat Colour** is recorded for your information at the end of the eating quality section but has no direct impact on eating quality; excessive yellowing or softness may affect the saleability of the carcase. Fat colour is assessed on the internal seam fat at the quartered site using the AUS-MEAT chips and ranges from 0 (bright white) to 9 (very yellow).

There are no points allocated for fat colour but individual competitions may apply penalty points (max. 5) if a carcase exceeds Fat colour 3 or if a market specification for fat colour is set.

**1.5 – Penalties** may be applied to carcasses that:

- fall outside the specified weight range
- (usually 1 point per kg outside)
- Exceed Fat colour 3 or fall outside the specified fat colour range
- Show Secondary Sexual Characteristics (bull or stag)
- Fall outside specifications for dentition
- Exhibit obvious defects, e.g. bruising, blood splash, injection site damage.

\* Carcasses must have adequate fat cover over the highlighted areas to receive maximum points.

# MSA Carcase Competition

Points	Description	
5	Meets minimum fat requirements with good even fat cover over entire body, without excess deposits of subcutaneous or seam fat.	
4	Meets minimum fat requirements with good even cover over the butt.	
3	Meets minimum fat requirements with fat cover over major primals, Cube roll, Striploin and Rump.	
2	Lean carcasses or carcasses with uneven fat distribution. Also carcasses with some excess fat deposits or seam fat.	
1	Fails to meet minimum fat requirements or over-fat carcasses with excessive fat deposits.	
0	Extremely lean or extremely fat, wastey carcasses.	

## 2. Lean Meat Yield (25 points total)

Lean meat yield is the proportion of the carcass that is saleable as primal cuts and meat trimmings. It excludes bone and waste fat. High-yielding carcasses are preferred, and they are heavily muscled with a thin, even fat cover, but the fat depth and distribution must be adequate to meet quality requirements.

**2.1 – Rib Fat Depth** is a good indicator of carcass yield with over-fat animals having lower yields. It is measured in millimetres at the quartering site (usually 10/11th or 12/13th rib). Optimum rib fat depth is the range set for each class (Market Category) in the specifications. To receive eating quality points, carcasses must meet the MSA minimum standard of 3mm at the quartering site.

**2.2 – Eye Muscle Area** is a good indicator of the red meat content of the carcass. It is measured in square centimetres at the quartering site (10/11th or 12/13th rib) and points awarded according to the area measured in relation to the carcass weight. The larger the rib eye area in relation to the carcass weight the higher the points awarded.

## 3. MSA Eating Quality (45 points, combined)

When Meat Standards Australia (MSA) grades a carcass, grading is based on the principles that:

1. The potential meat quality of an animal must be realised as far as possible by minimising stress between farm and slaughter, and by optimising chilling/electrical stimulation conditions during processing
2. There are known variable factors that affect the eating quality of individual muscles and adjustments are made for their effect.

The MSA Grading Model predicts eating quality of the muscles by different cooking methods. It applies all our current knowledge about the factors affecting meat quality – which muscles they affect, by how much, and what interactions there are with other factors. These have been defined by a large research effort involving 250,000 consumer taste tests and 1.5 million samples of beef eaten.

# MSA Carcase Competition

In the Australian Beef Carcase Appraisal System the MSA eating quality score is the average predicted MSA eating quality score of 39 primal cuts, cooked by their optimal method. Scores have been scaled to deliver a maximum of 45 points for eating quality. If carcasses fail to meet MSA minimum requirements, they are below the benchmark standard for high quality table beef and will not receive an eating quality score.

**3.1 – Ultimate pH** is a measure of acidity / alkalinity levels of the meat. It is very important for keeping quality (shelf life) and is related to its cooking properties, colour and consumer acceptance.

After slaughter, the reserves of glycogen (energy) in the animals' muscles are converted to lactic acid, causing the pH to fall. As long as there is adequate glycogen present at slaughter, the pH will fall to within the normal range of 5.40 to 5.70. If there is not enough glycogen (due to stress or poor nutrition) then pH will remain above the acceptable limit of pH 5.70 and the meat is likely to be dark in colour, with poor keeping quality.

High pH meat is more difficult to cook to the right degree of doneness. At the same temperature as a cooked normal steak, it appears much rarer and if further cooked will lose its juices and become tough and dry.

- MSA rejects carcasses with pH over 5.71
- A slight downward adjustment is made to eating quality of all cuts from carcasses high in the acceptable 5.40 to 5.70 range.

To maintain high glycogen levels it is important to maintain a high level of nutrition and water prior to slaughter and minimise transport and handling stress.

## Eating quality variables and their effect

In commercial grading, once cattle have been slaughtered and have met processor requirements for eligibility, the grader enters information about each carcase and the MSA Model predicts the eating quality of each cut (visit [www.msagrading.com](http://www.msagrading.com) for further details). Predictions are scientifically based and validated by the extensive MSA consumer testing program.

Processor requirements include:

1. Meeting the MSA pH decline “window” – the rate of chilling and amount of electrical stimulation to optimise meat quality, determined by CRC research)
2. Cattle must be from a licensed producer / saleyard and must be accompanied by an MSA vendor declaration.
3. Direct consignment cattle must be processed within 48hrs from dispatch.
4. No mixing or drafting of different mobs of cattle.

Please note that the structure of some competitions may preclude the carcasses from commercial grading. In this case, the assessments are provided for education and feedback.

## 3.2 – Ossification (maturity) and Carcase Weight

Ossification score is a measure of physiological maturity of the beef carcase. Hot Standard Carcase Weight (HSCW) is used in conjunction with the ossification score to identify carcasses with greater weight for maturity – faster grown cattle have better eating quality.

As beef cattle mature the cartilage present around the bones of the spinal column gradually change into bone (ossify). The rate at which this occurs is reasonably predictable but is affected by factors such as sex and nutrition. The scale of ossification runs from 100 to 590.

# MSA Carcase Competition

Cuts from carcasses with lower ossification at the same weight are graded higher. Increasing ossification has a cut-by-cut effect with a high effect on some cuts (e.g. rump) and a low effect on others (e.g. oyster blade).

Ossification score is influenced by a number of other factors:

- Heifers tend to have higher ossification scores at the same age compared to steers
- Hormonal Growth Promotants (HGP) – treatment tends to increase ossification scores
- Nutritional setbacks or injury can increase ossification score, and this is not reversible.

Ossification score is assessed at three different locations on the sawn chine: the 5 sacral vertebrae (Tail), 6 Lumbar (back) and first 13 thoracic vertebrae (ribs).

### 3.3 – Tropical Breed Content (TBC) % and Hump Height

Research by the Beef CRC has found that these breeds do carry more genes associated with toughness, but if animals are well managed before slaughter and optimally processed, the differences are small.

MSA research has determined that the major negative effect is toughening of the striploin, cube roll, tenderloin and oyster blade – all high value grilling cuts. The effect is smaller in the cuts with higher connective tissue such as brisket, top-side, outside (silverside) and eye round.

The percentage of tropical breed content is taken into account by the grading model in combination with other factors. All cuts from 100% tropical breeds can still meet acceptable MSA consumer standards if the cattle are within age and fat limits and optimum eating quality interventions such as tenderstretch hanging, and ageing of cuts, are applied.

In crossbred cattle the hump height is an easily measured indicator of the percentage tropical breed content (TBC %). Animals of the same TBC can show different levels of visible traits such as hump, pizzle and ear length. Analysis of MSA data has confirmed that when adjusted for carcase weight, hump height can also be used to estimate the ‘tropical breed effect’ on eating quality. Hump height is measured in increments of 5mm on the hump muscle (M. Rhomboideus) on the animals’ neck.

The tropical breed content (TBC) is supplied by the producer on the MSA Vendor Declaration or as the breed description on the competition entry form.

### 3.4 – MSA and AUS-MEAT Marbling Score

Marbling is the intramuscular fat (IMF), which appears as fine flecks within the muscle. It is deposited unevenly throughout the body, increasing through the carcase towards the neck and decreasing towards the tail. As cattle fatten, deposits accumulate in all the main fat depots (under the skin, around the internal organs, between the muscles and inside the muscles) but some cattle have the genetic ability to favour the development of marbling within the muscles.

To maximise marbling, cattle must be on good nutrition, at least during the finishing stage, and well finished.

MSA research associates increased marbling to higher eating quality scores for many grilling and roasting cuts. The effect is greatest in the loin cuts (cube roll and striploin) but it is possible to achieve good eating quality without visible marbling.

The MSA grader assesses marbling on the exposed rib eye (eye-muscle) at the quartering site.

AUS-MEAT marbling is assessed on a scale of 0 to 9, and is based on the total amount of marbling within the eye muscle.

An MSA-specific marbling score is also given on a scale of 100 to 1190, in increments of 10, with emphasis on its fineness and how it is distributed. This is thought to relate more closely to eating quality.

# MSA Carcase Competition

## 3.5 – Sex

There are small differences in eating quality between steers and heifers, other factors being equal. Although small, the effect of sex is rather complex, with heifers having a lower eating quality in some muscles and higher in others compared to steers.

The biological basis for the sex effect is not clear at this stage.

## 3.6 – Rib Fat

Rib fat depth is primarily used as an indicator of market specification, but it also plays two roles in eating quality. Firstly, MSA requires a minimum of 3mm of subcutaneous fat at the quartering site with even fat distribution required over the entire body. This fat cover helps avoid eating quality problems caused by a rapid or irregular pattern of chilling (see fat distribution). Secondly, fatter carcasses have slightly improved eating quality, over and above that associated with marbling and in this case a small upward adjustment is made to the grilling cuts.

## 3.7 – Other variable factors affecting eating quality

There are other factors affecting eating quality in the MSA model, but most are usually constant across competition groups, or are outside the producer's control. The factors include:

### 3.7.1 – Hang Method

Tenderstretch hanging (from the pelvis) has a number of significant advantages over the traditional hanging from the Achilles tendon (AT or hock), including:

- Significant improvement in eating quality from most of the major high-priced cuts
- A reduced need for post-slaughter ageing to improve eating quality
- Significant improvement in eating quality of tropical breed types
- Counteracts the negative eating quality effects of hormonal growth promotants (HGPs)

### 3.7.2 – Hormonal Growth Promotants (HGPs)

HGPs have a negative effect on eating quality, especially in the grilling cuts.

### 3.7.3 – Saleyards

The extra stress of saleyard handling compared to direct transport from farm to abattoir has been shown to reduce eating quality. The MSA model adjusts scores across the carcase.

### 3.7.4 – Ageing

Storing beef carcasses or vacuum -packed cuts for up to 21 days at 0-1°C improves tenderness. Improvement is greatest in AT hung carcasses, in those with higher tropical breed content and those treated with HGPs.

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# Melbourne Royal Beef Carcase Competition *Schedule* 2024

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# MELBOURNE ROYAL BEEF CARCASS COMPETITION



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