



# SIRE VERIFICATION AND SUPPLY CHAIN CONFIDENCE

Wagyu Feeder Check is an Australian Wagyu Association tool developed alongside CSIRO in partnership with Neogen, aimed at improving resilience and sustainability of Australia's Wagyu beef export Sector



## THE WAGYU FEEDER CHECK:

Wagyu Feeder Check is a commercial DNA genomic test designed for Wagyu content beef cattle to determine low genetic merit animals and help eliminate these from long-fed programs. This will optimise resource use efficiency, increase drought adaptability, and improve profitability and resilience in the high-value Australian Wagyu Beef export beef sector, saving up to \$22 million in costs and resources annually.



## DEVELOPMENT OF WAGYU FEEDER CHECK BY AWA CSIRO AND NEOGEN

The Wagyu Feeder Check tool was developed through partnership with AWA, Neogen and CSIRO. The Wagyu Feeder Check genomic algorithms were developed by CSIRO using more than 8,000 genotypes supplied by the AWA and Neogen and carcass records supplied by 7 independent commercial supply chains.

## USING WAGYU FEEDER CHECK

Industry deployment of the test delivers a step change in optimizing management strategies to meet profitability and sustainability targets in the Wagyu industry.

Wagyu Feeder Check is aimed to support supply chain participants who produce export market quality for Wagyu beef using a grow out period, typically around 350 - 400 days.

Wagyu Feeder Check provides you with the ability to test feeders at feedlot entry to estimate low genetic merit carcass performance animals. Animals in your induction groups can be ranked for genetic merit on five feedlot and carcass performance traits and on the Wagyu Feeder Index, a weighted index ranking animals on estimated profitability.

Animals that can be identified as not meeting the performance criteria for a supply chain can be drafted into short-feeding programs or other endpoints, saving on resource use and investment of capital.

## HOW DOES WAGYU FEEDER CHECK WORK?

Wagyu Feeder Check reports genetic merit for 5 traits; Average Daily Gain in the Feedlot, Carcass Weight, Subcutaneous Fat Depth (P8 fat), Eye Muscle Area and Marble Score. Using these traits within the Wagyu Feeder Index, we calculate the relative commercial value ranking of each individual animal based on weighted importance within the Index.



Feedlot ADG



Carcass Weight



SC fat depth



Marble Score



Eye Muscle Area



Wagyu Feeder Index



Sire Verification

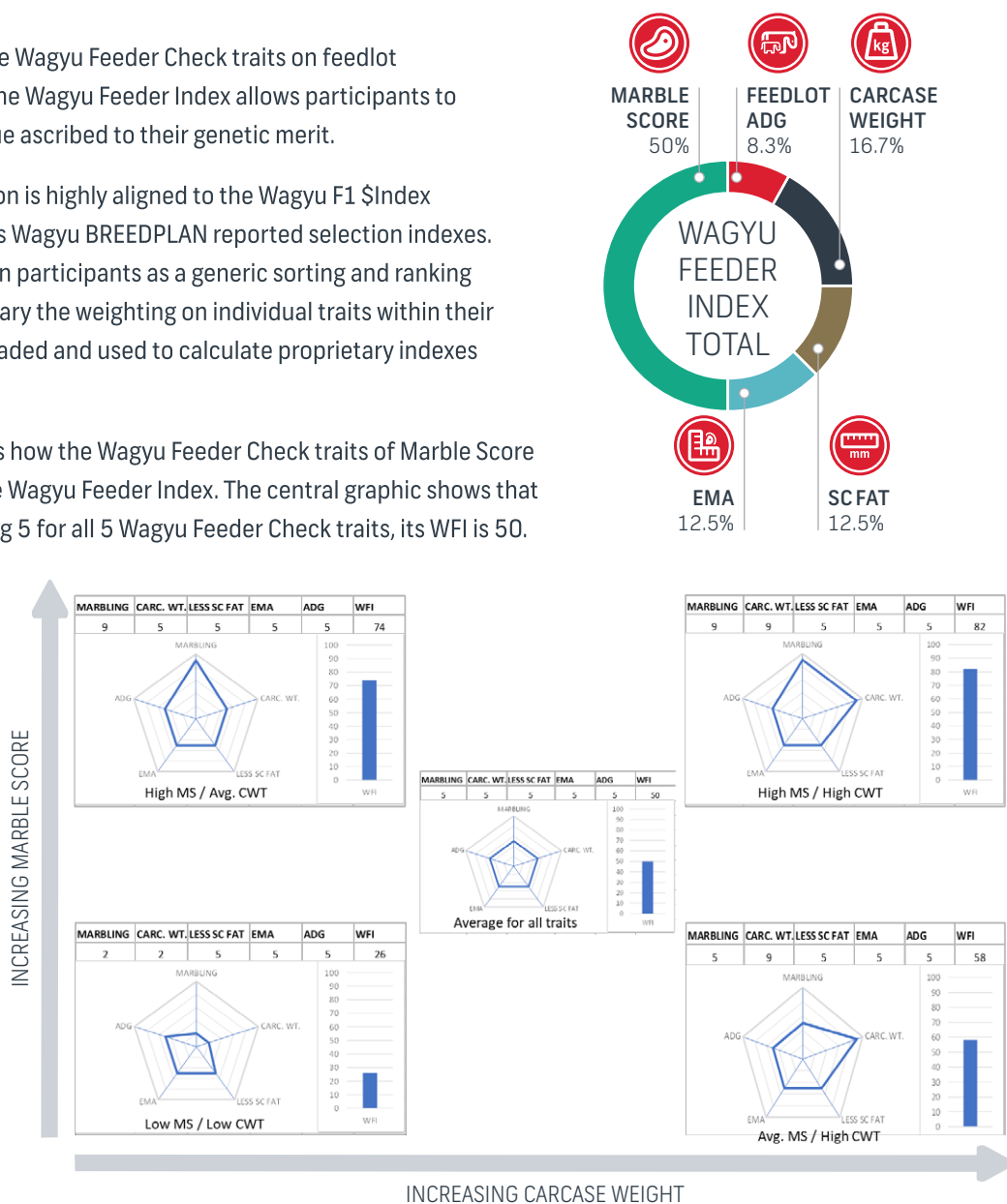
## WAGYU FEEDER INDEX TRAIT WEIGHTED PERFORMANCE RANKING

Based on the relative impact of the Wagyu Feeder Check traits on feedlot performance and carcass value, the Wagyu Feeder Index allows participants to quickly sort animals based on value ascribed to their genetic merit.

The Wagyu Feeder Index calculation is highly aligned to the Wagyu F1 \$Index published by the AWA as part of its Wagyu BREEDPLAN reported selection indexes. The WFI is provided to supply chain participants as a generic sorting and ranking tool. Should participants wish to vary the weighting on individual traits within their own index, all data can be downloaded and used to calculate proprietary indexes for alternate trait weightings.

The graphic (below) demonstrates how the Wagyu Feeder Check traits of Marble Score and Carcass Weight impact on the Wagyu Feeder Index. The central graphic shows that for a Breed Average animal, scoring 5 for all 5 Wagyu Feeder Check traits, its WFI is 50.

Bottom left shows an example with low Carcass Weight and Marble Score but with other traits average and the WFI is 26. Top right shows an example with high Carcass Weight and Marble score but with other traits average and the WFI is 82. Two other examples are provided on the graphic to demonstrate high marble score and high Carcass Weight examples at average trait performance for other traits.



A Molecular Trait Ranking from 1 (lowest/worst performing) to 10 (highest/best performing) is reported for the 5 Wagyu Feeder Check traits along with the Wagyu Feeder Index. The five reported traits are defined in the table. The Wagyu Feeder Check rankings for each trait are based on significant variation within the reference population (n= 8,307) for each trait. The following table shows the average of phenotypes for each trait for animals ranked from 1 to 10 based on their MBV ranking within the reference population.

**Average Grading Phenotype by MOLECULAR RANK:**  
Based on Deciles (eg top 10% to bottom 10% of reference population (n=8,307))

Rank	ADG Kg	CWT kg	Low SC Fat mm	EMA cm <sup>2</sup>	Marble Score MS Units
Top 10%	1.109	490.32	15.74	101.27	7.987
Middle 10%	0.909	431.32	24.20	88.26	5.699
Bottom 10%	0.733	383.23	34.39	79.13	3.980

## WAGYU FEEDER CHECK – VERIFY FUNCTION: SIRE-PARENT VERIFICATION

The Australian Wagyu Association has a genomic database with over **70,000 registered sires**. This database will be searched to find a sire-parent match for every animal submitted for genotyping through the Wagyu Feeder Check test. The sire-parent registration identifier will be reported for every animal where the sire could be statistically validated.

Using the Wagyu Feeder Check Verify function, you can sort animals within your data report by sire where the sire has been identified from the AWA database. Once you have carcass data reported for your feeder groups, you can identify high and low performing sires within your groups to further improve future management decisions. For example, eliminating low performing sires from your feeder groups or targeting high performing sires for future feeder groups.

## \$5 REFUND FOR CARCASS DATA OF WAGYU FEEDER CHECK SLAUGHTER ANIMALS:



The AWA encourages you to register sire-parent verified animals identified through Wagyu Feeder Check Verify in the **free-of-charge AWA Slaughter Register**. AWA will then **refund you with \$5 per Slaughter Registered** animal for which carcass data is provided from the processing facility.

In providing the AWA with the carcass data for Wagyu Feed Check Verified animals and AWA paying you \$5 per record, you agree to the AWA using the carcass data for improving its genetic estimates of registered cattle within the AWA public genetic evaluation (Wagyu BREEPLAN) for Fullblood and Purebred cattle.

### WHAT YOU NEED TO DO TO BE INVOLVED?

- » Collect TSU samples on the animals you want to test
- » Submit your request to the AWA through the Wagyu Feeder Check database
- » Send your samples to Neogen with the required documents
- » Await your results to be reported through the Wagyu Feeder Check database.