

Eating Quality in the UK

International collaboration

In 2017, Australia and the United Kingdom (UK) partnered to test the eating quality of UK beef. Findings suggest that not only are UK consumers sensitive to variable beef eating quality, they are also willing to pay more for premium product.

R&D Snapshot

Meat Standards Australia (MSA) collaborated with the Agriculture and Horticulture Development Board (AHDB) to utilise Australia's world-leading consumer testing protocols to assist the UK benchmark the eating quality of British beef. This joint partnership is part of Australia's ongoing commitment to growing demand for beef, globally.

AHDB staff were trained in MSA taste testing protocols, which will assist in future research collaboration.

The UK trial consisted of:

- ▶ 360 UK consumers tested
- ▶ 18 carcasses: 9 young bulls, 6 heifers and 3 steers
- ▶ Carcasses were hung via the Achilles Tendon one side and the other by hip suspension
- ▶ All live animal, farm and transport information was recorded

All carcasses were EUROP and MSA graded prior to boning

- ▶ 6 cuts were utilised including the tenderloin/fillet, sirloin/striploin, rump, topside, bullet/knuckle eye and feather/oyster blade
- ▶ 21 days ageing in vacuum packaging
- ▶ Samples were prepared using the grill cook method.



The state of play

UK: The UK utilises the European conformation classification system for grading beef carcasses. This system classifies carcasses by estimating yield as graded by carcass conformation (EUROP), fat class (1-5) and weight of carcass (www.gov.uk, 2017) but does not contain an eating quality assessment.

Australia: MSA uses 14 different measurements to account for the factors affecting eating quality. Every cut from an eligible carcass is then assigned an eating quality score out of 100. These scores then determine if a product is categorised as a 'Fail', 3 star, 4 star or 5 star quality.

The MSA program measures all factors that affect eating quality.



- ✓ Carcass weight
- ✓ Cooking method
- ✓ Cut ageing
- ✓ Hanging method
- ✓ Hormonal growth promotants
- ✓ Individual cut
- ✓ Marbling
- ✓ Milk-fed veal
- ✓ Ossification (maturity)
- ✓ pH
- ✓ Rib fat measurement
- ✓ Sex
- ✓ Tropical breed content
- ✓ Via saleyard

Every cut gets an eating quality score out of 100.

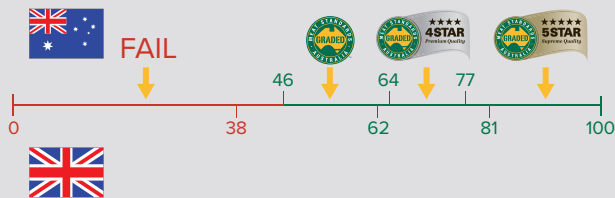
The development of MSA

In the early 1990s, the Australian beef industry identified variable eating quality as a major contributor to declining beef consumption, and committed research funding to address the problem. The ability to predict the eating quality of cooked beef prior to consumption was identified as the key. Consumer testing protocols were developed, which led to the implementation of MSA grading standards, defined by consumer score outcomes. This approach places consumer satisfaction at the centre of the plate.

MSA has collated results from 800,000 consumer taste tests, in 11 countries, to determine consumer eating quality thresholds i.e. 'good everyday' quality or 3 stars, 'better than everyday' or 4 stars, and 'premium' or 5 stars. Defined by consumers, these scores are internationally consistent.

Australian and UK perceptions of eating quality

- ▶ Unsatisfactory
- ▶ 3 star – good everyday quality
- ▶ 4 star – better than everyday quality
- ▶ 5 star – premium quality.



Taste the difference

Results indicate that UK consumers are willing to pay for a guaranteed eating experience. In fact, in comparison to Australia, UK consumers are slightly more inclined to spend more on a premium product, and even less on unsatisfactory product, offering an incentive for the supply chain to produce consistent, quality beef.

UK consumers will pay accordingly



Understanding consumer scores

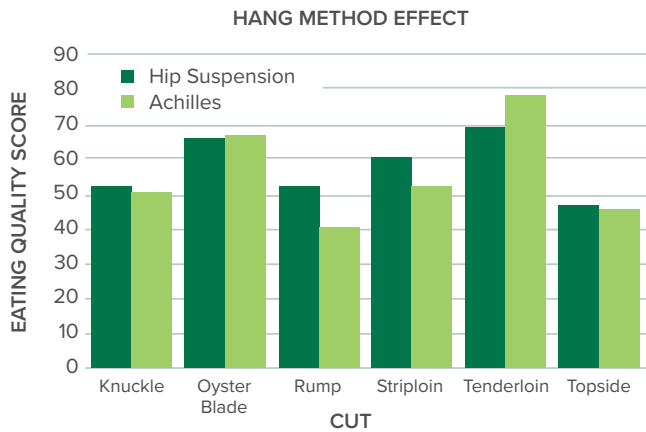
The UK trial showed that:

1. Sex has an impact on eating quality

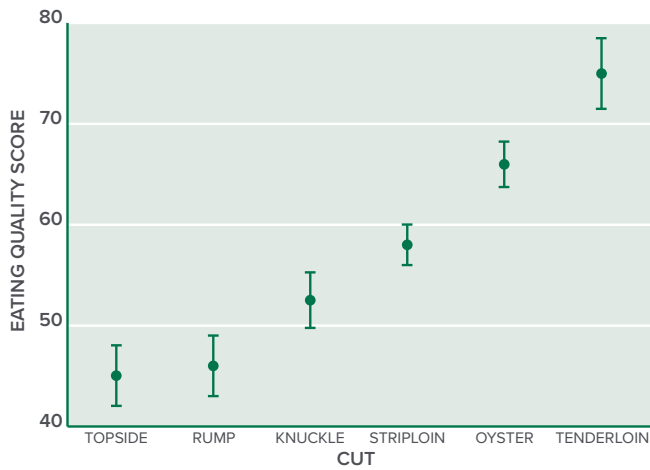
A moderate sex effect was evident and supports previous findings that identified product from bulls as having lower eating quality, followed by heifers. Product from steers resulted in higher levels of satisfaction.



2. Carcase hanging methods can improve eating quality



3. Different cuts had different eating quality outcomes, regardless of hang method.



EUROP correlation

Data collected did not show a relationship between the EUROP system and consumer satisfaction with beef eating quality.

Conformation Grade		Fat Grade	
Grade	No. Carcases	Grade	No. Carcases
-U	3	2	8
U+	1	3	5
R	9	4L	5
O+	5		

Delivering consumer confidence in eating quality

MSA graded beef can deliver the eating quality outcomes that UK consumers both desire and are willing to pay for. Consumer-defined eating quality scores combined with recommended cooking methods, give consumers confidence that they can purchase and cook beef that will meet their expectations, every time.