



CREATING A CLEARER IMAGE OF AUSTRALIAN WAGYU

Objective carcass measurement in the Australian meat industry has been acknowledged as a required step forward in providing supply chains with more precise data than is currently available.

To get on the front-foot, the Association is working directly with Meat Image Japan (MIJ) to provide industry with an objective camera system that has been developed for objective carcass measurement for Wagyu quality.

The use of the MIJ-30 objective carcass camera will provide a higher level of data on intramuscular fat content (marbling amount), distribution and fineness, rib eye area and colour. With this data, breeders will be better able to identify breeding potential based on objective carcass data, and suppliers to hospitality, retail and export will have additional objective data to support their brands.

Aus-Meat qualified meat graders assess each carcass in a chilled environment at a prescribed period of time after slaughter, using a set of quantitative measurements and qualified reference charts to define the grade. These parameters include carcass weight, P8 fat depth, dentition, ossification, pH, intramuscular fat content (marble score), meat colour, fat colour and eye muscle area. Voluntary additional values can also be included to define the eating quality under Meat Standards Australia.

Aus-Meat grading (image pictured - page 37) from marble score (MS) 1 to 9 is equivalent to 1% to 21% of intramuscular fat (IMF%) content as determined by extractable fat (chemical fat). Wagyu can exceed 50% IMF, with other factors such as distribution and fineness also important for eating quality and value.

The Japanese system (image pictured over page), overseen by the Japan Meat Grading

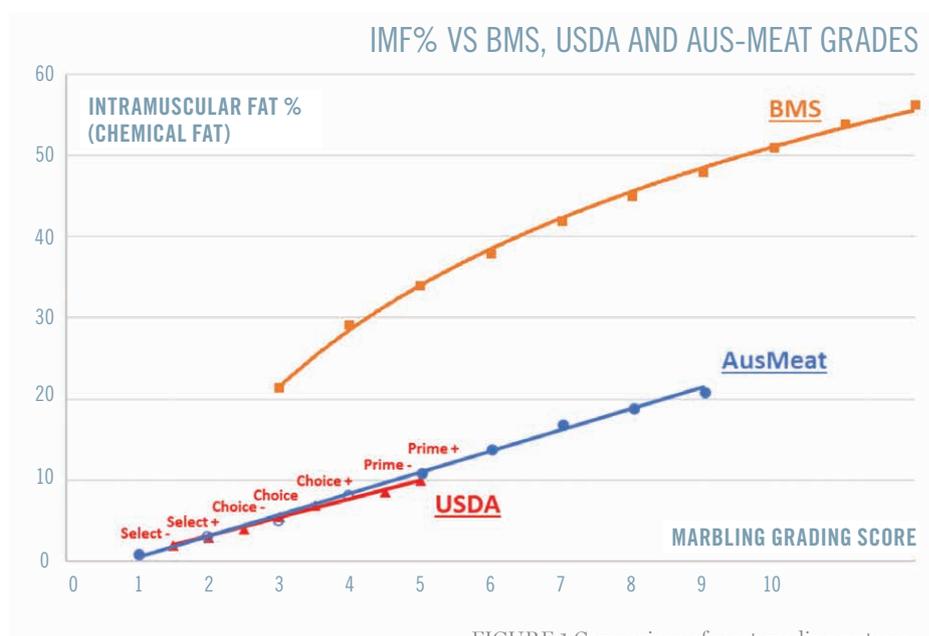


FIGURE 1 Comparison of meat grading systems.

Authority (JMGA) is more complex – marbling, yield, colour and brightness, texture, fat quality – are all taken into consideration and marble score reaches 12, equivalent to more than 50% IMF.

The relationship between Aus-Meat, USDA and JMGA (BMS) grades and IMF% is shown in Figure 1. Each grading system has its own purpose and range.

With objective grading using the MIJ-30, the level of intramuscular fat can be given as a percentage along with the score from the required grading system. For the Australian Wagyu industry, using accurate marble score data across the full range of IMF% that Wagyu can achieve, is invaluable for accelerating Wagyu genetic gain in marbling. Any EBV is dependent on the quality and accuracy of the performance

data that the trait is measured with. Currently, the top 30% of our genetics sit above Aus-Meat marble score 9 and we need to identify these accurately to achieve our best genetic progress.

THE MECHANISATIONS OF THE MIJ-30

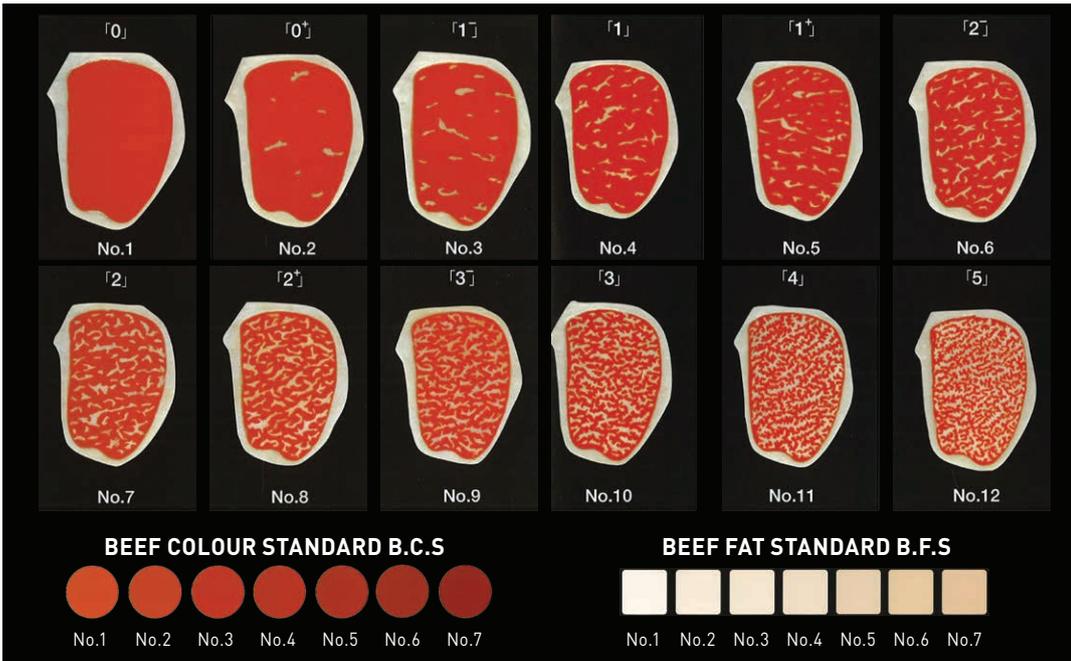
The Meat Image Japan (MIJ-30) camera has been evolving for more than 20 years to bring digital imaging technology for Wagyu. The grading starts with a scan of the carcass identification via a barcode scanner, followed by a digital image by the MIJ-30 of the eye muscle to calculate the range of traits important to Wagyu carcass quality. Comparisons between chemical analysis of fat content and the MIJ-30 indicate that the accuracy is up to 90%. Rib-eye area calculations are also highly accurate, as the technology uses automatic



AUS-MEAT & MSA

The Australian meat grading system operates to MS 9+, for up to 21% IMF, using reference charts for comparison.

Source: www.ausmeat.com.au



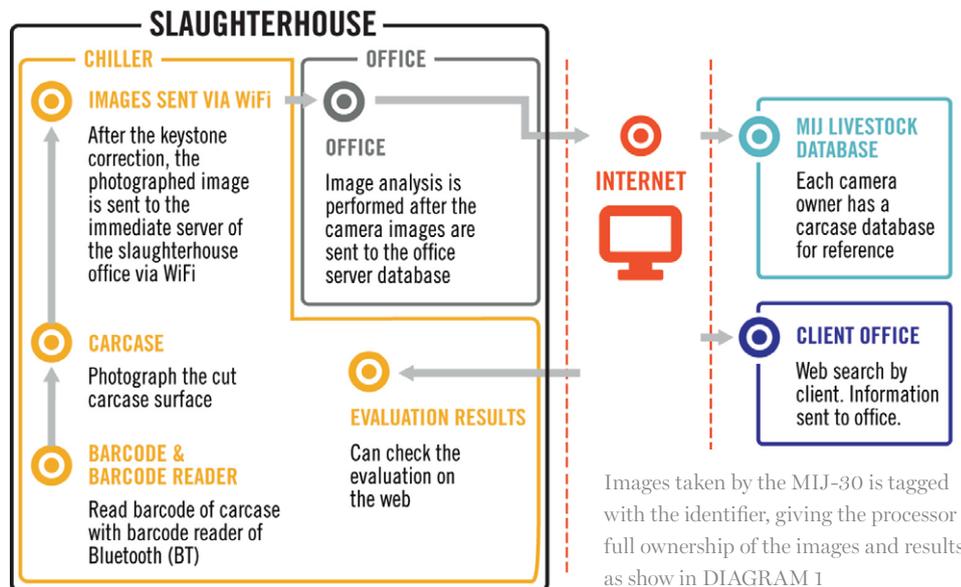
BEEF MARBLING STANDARD B.M.S.

The Japan Meat Grading Association calculates meat grades up to MS 12 for around 50% IMF.

edge detection and can compensate for variations in cut angles and carcass rotations. The MIJ-30 uses a digital CCD optical system with a resolution of 12Mb. Using a cloud-based analysis system that provides real-time grading, the camera takes a digital image that is uploaded via WiFi or Bluetooth with results given within 20 seconds. In the event that WiFi is not available, or upload speeds are slow from the processing site, images can be stored on USB for analysis back in the office. Each camera has a unique identifier, providing the customer with secure data and transfer. Images taken by the MIJ-30 is tagged with the identifier, giving the processor full ownership of the images and results.

The unit is fully enclosed and manufactured from stainless steel for hygienic operation and is easily cleaned. The key features of the MIJ-30 are:

- » 2.9kg, 12Mb camera resolution, 64Gb USB data storage, Bluetooth, WiFi connectivity, Barcode reader
- » Stainless steel construction, 2 x 4.2ah



- rechargeable batteries and one charger
- » Carcass assessment completed in 20 seconds for each carcass
- » Batch files downloadable for further storage with batch reports available from MIJ in a standard format.

The Australian Wagyu Association has an

exclusive partnership with Meat Image Japan to develop, distribute and support MIJ camera technology within Australia, New Zealand and South Africa to support its members.”

FOR MORE INFORMATION CONTACT THE AWA

office@wagyu.org.au 02 6773 3138