

Chiller Assessment - its ramifications and future

Introduction

Chiller assessment has become an important marketing and trading tool for the Australian Meat Industry. The potential exists for chiller assessment to be used in some way by all interests including consumers and livestock breeders. This paper will outline the ramifications and future of the AUS-MEAT Chiller assessment scheme in terms of standards, measurement techniques and training.

Opinions were sought from a number of industry people in preparing this paper. It is recognised by AUS-MEAT that ultimately it will be the industry and those who currently use Chiller assessment who will control and shape the future direction of the scheme.

The History of Chiller Assessment

The AUS-MEAT Chiller assessment scheme was launched in March 1991 to help Australian exporters better service the then liberalising Japanese market. The scheme provided a basis for assessing and measuring meat quality attributes (marbling, fat colour, meat colour and texture/firmness) and eye muscle area of individual beef carcasses.

The Chiller assessment scheme was achieved by identifying the individual meat quality aspects which mattered the most to consumers and developing relevant technology which would objectively and impartially measure those attributes in the physically demanding chiller/meatworks environment. An integral part of the scheme was the AUS-MEAT training of industry personnel as competent chiller assessors.

Chiller Assessment Today

One of the initial goals of Chiller assessment was for the scheme to evolve as a trading language and feedback mechanism along the beef marketing chain. To an extent this has been achieved with the scheme currently being used by a number of groups including export meat processors, domestic processors, supermarket chains, a number of service catering interests, and some producers. Its applications include the following:

- The evaluation of grain-fed beef for the Japanese and other markets where the product is marketed as grain-fed;
- The grouping of grass-fed product to Japan, Korea or onto the domestic market;
- As a basis for purchasing carcasses or selecting meat cuts.

Chiller assessment has been well embraced by the Japanese market. A recent survey conducted in Japan showed a 55% acceptance of the Australian system implying that the system is both well understood and widely used. Chiller assessment has been a key element in quality assurance programs developed by export processors supplying grainfed product to Japan. In virtually all cases it has been used to underpin consistency and improvements in quality of product supplied under individual company brand labels.

Chiller assessment is still not used to any great degree in transmitting price signals down the marketing chain in total or in part, although in some cases a premium is being paid for desirable assessment characteristics. Some processors argue as to who in fact created the "value" of the carcass - themselves through certain processing steps (e.g. electrical stimulation) or the producer - and hence are concerned about relaying price signals which may not ultimately improve the quality of incoming stock. Others however believe that relaying price signals will ultimately improve breeding lines to improve traits such as marbling.

The actual feedback of chiller assessment information from processor to producer without a change in payment is occurring. It is important to note however that for such information to be used most effectively, individual animal identification systems need to be in-place from the producer to the assessment stage.

The Future for Chiller Assessment

AUS-MEAT believes that the future of chiller assessment rests with its individual components (e.g. meat colour, fat colour, marbling) rather than chiller assessment as a whole. "Chiller assessment" in its entirety is merely an assessment of various attributes in the chiller. Those components of the system which the customer, processor or producer ultimately see as important or which can be used in a practical sense vary greatly.

Clearly AUS-MEAT will continue to provide the language and standards basis, but exactly where the assessment information will be gathered (slaughter floor, chiller, boning room), what information should be fed back to the producer, or what agreements should be made with the customer, rests with the individual parties in the beef marketing chain and should be initiated by the processor or dictated by the customer. The measurement however must be exact and mean the same to the producer, processor and customer.

With respect to the individual components of chiller assessment, it is realistic to assume that these will change in the future as new and better measurement or prediction techniques evolve. It is anticipated that improved relationships between individual parameters (e.g. marbling) and meat quality traits (e.g. tenderness) will be made. It is also foreseen that new or emerging technologies may replace some of the measurements and techniques currently used. AUS-MEAT is committed to ensuring continuous improvement to the standards and thus will carry-on evaluating and revising the language as, and when, needed.

There are some within industry who wish for AUS-MEAT to maintain its current role of providing the language and standards of chiller assessment and allow individual processors to use that information as their own marketing tool. Others however would wish AUS-MEAT to create a group of standards or classifications under Chiller assessment. Ultimately though AUS-MEAT believes that the action taken should depend on the customer, market and their individual needs.

The mechanism of passing Chiller assessment information along the marketing chain needs to be addressed. Livestock suppliers are still only indirectly influenced by what final consumers demand. Certainly there are some signals that currently get through, however average prices still dominate for much of the livestock purchased by processors. The incentive in the future for producers to supply desirable product specifications has to be by way of expected, and delivered, price signals. Chiller Assessment language, as an integral part of the pricing grid, will surely provide part of that mechanism in the future.

There is some demand by industry to chiller assess through into the boning room. Table assessment of meat and fat colour would promote more thorough segregation of cuts. Research already undertaken by AUS-MEAT showed the variability of colour between and within primals. Table assessment would help address this. It also appeared that correlation to the carcass assessment was not strong. It is desirable that further research be conducted in this area, both in the development of individual chips for each set of primals which will consistently assess the attributes, and the development of a set of protocols for use within the boning room. The extent of industry demand would determine when this will occur. It must be noted that if assessment does indeed proceed to the boning room and the method of payment to the producer encompasses this, then primal identification systems would need to be implemented relating the individual primal to its parent carcass.

If this type of system is adopted, or any change to the existing assessment system occurs, it is critical that education of the customer or end-user follows promptly. Ultimately it does not matter what system is used to grade, as long as the customer understands the system and the system is consistent.

Methods for improving the objectivity of Chiller Assessment need to be considered in evaluating the future of Chiller assessment. The current perceived or actual variations between assessors is of concern, particularly if or when such assessment becomes a basis of the payment grid. The emergence of objective

measurement tools such as Video Image Analysis (VIA) is being watched closely. Although it is apparent at this stage that further research needs to be undertaken to improve the accuracy and consistency of the technology, industry view VIA with enthusiasm. Organisations such as QANTAS and Woolworths envisage the potential for more consistent assessment and the ability to base payment on saleable meat yield. Processors also see an advantage in the greater consistency which VIA may provide over a manual assessor. The use of VIA as an auditor for manual assessors has also been considered.

Training of assessors continues to be an important issue to industry parties. The more consistent and accurate assessors become, the greater the confidence in the scheme. There is a growing push for progressive self-development training on-plant rather than the current intensive two week training course. Many believe this would provide an assessor more matched to the individual processor's operations. It is also recognised that training courses would need to be developed for table assessment when necessary.

AUS-MEAT are, and will be, striving to improve the methodology associated with auditing of chiller assessors. It is recognised that the results of audits currently may not be an accurate representation of day to day assessments and therefore cannot be relied upon to appraise individual processors.

Conclusion

Characteristics derived by Chiller Assessment continue to be an important trading tool for the Australian meat industry, particularly for the Japanese market. Towards the future, it is predicted that Chiller assessment will play a greater role in a number of areas including -

- Producers using chiller assessment feedback as a means of selecting desirable bloodlines;
- Processors using the quality information as part of the payment grid;
- Parameters of chiller assessment continuing as a basis for grading and perhaps expanding;
- Assessment progressing into the boning room and perhaps beyond.

AUS-MEAT is committed to the continuous improvement of the language and standards and will aim to improve the prediction of quality traits through adoption of relevant technologies and research. This will occur in response to industry demand and consumer needs.

References

- ACIL Consultants (April 1993), AUS-MEAT's Chiller Assessment: Adoption and Use - A Report Commissioned by AUS-MEAT.