

Preface

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Variation in the eating quality of Australian beef has been a concern to the Australian beef industry for many years. Previous attempts at grading schemes, which professed to sort carcasses on eating quality, generally accounted for little variation in palatability when tested by consumers. The lack of a means to accurately describe beef eating quality was highlighted in the 'Meat Industry Strategic Plan' tabled by the Meat Research Corporation (now Meat and Livestock Australia) in 1996. The plan contained six strategies for the Australian beef industry, of which three identified the need for better description of product and marketing systems in order to deliver a more consistent beef eating experience to the consumer.

To address these strategies the Meat Research Corporation held discussions in early 1997 with interested parties to formulate a proposed structure for a new meat grading scheme. From the science, it was evident that beef quality at the consumer level was a function of many of those events which occurred during production, lairage, processing and value adding. Therefore, the new grading scheme used a Palatability Analysis of Critical Control Points (PACCP) approach to the problem, i.e. it took account of important Critical Control Points (CCPs) that impacted on eating quality. Although initial testing focused on consumer testing grilled striploin steaks, when other cuts and cooking techniques were included it became evident that many of the CCPs interacted with cut. As satisfying the consumer with an accurate description of eating quality was given the highest priority. It was clearly evident that grading of cuts, rather than carcasses, was necessary. Hence, the cuts-based grading scheme was developed (Polkinghorne *et al.* 2008b).

As documented by many of the papers in this issue, the development of the PACCP concept was followed by an intensive period of research and consumer testing to quantify the importance of production, lairage, processing and value-adding factors on beef eating quality as judged by untrained consumers (Watson *et al.* 2008b). From a scientist's perspective it was a challenging and exciting time. The size of the research task being undertaken, coupled with an industry urgency to implement a beef grading scheme, fostered strong collaboration both between research groups and also between researchers and industry. For the scientist, MSA provided a perfect conduit for implementing technology. If a technology impacted on eating quality and could be quantified by the

consumer taste panels it could be incorporated into the MSA system. From an industry perspective it was a period of rapid change as the new grading scheme was shaped and implemented. In the early stages there were some in industry who were critical of elements of the implementation and operation of the scheme; however, it was interesting that few questioned the science.

As outlined in the following papers, the early development of the MSA system involved putting in place a rigorous consumer testing system (Watson *et al.* 2008a, 2008b). The resulting consumer scores provided a powerful means to communicate the results to industry – so much so that consumer scores are now considered the standard 'goal posts' by which industry evaluates effects on eating quality.

The MSA system has attracted a lot of overseas interest. The series of papers which compared Korean and Australian consumers is an example of the overseas collaboration which has been undertaken by MSA (Hwang *et al.* 2008; Park *et al.* 2008; Thompson *et al.* 2008a). Several papers detail the effect of hormonal growth promotants on eating quality and its incorporation into the MSA model (Thompson *et al.* 2008b; Watson 2008, Watson *et al.* 2008b) and these provide a good example of how the evidence to support inclusion of a new trait in the MSA model was managed. The development of the MSA model is a dynamic process that will continue to be updated as new technologies emerge.

The MSA system simply ranks beef cuts on eating quality according to how it is cooked and by itself it is not a marketing system. It can, however, be used to underpin new marketing systems. The paper by Polkinghorne *et al.* (2008a) details how MSA has underpinned a new concept of retailing beef and the development of a transparent marketing scheme focused on eating quality and yield. It has long been a goal of many beef producers to be paid for quality and yield, and the MSA system is capable of underpinning such a system. Similarly, the consumer will benefit from a system that more accurately describes eating quality of beef.

MSA has provided an exciting development in the Australian beef industry. It is a good example of an industry need being supported by a collaborative research effort between industry and science, leading to implementation of a commercial system with the ability to underpin new retailing and marketing concepts.

References

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