The future:

Gene markers hold scope for refinement

RECENT advances in DNA technology could hold one of the keys to further refinement, greater efficiency and higher rewards for producers under the Meat Standards Australia pathways-based grading system.

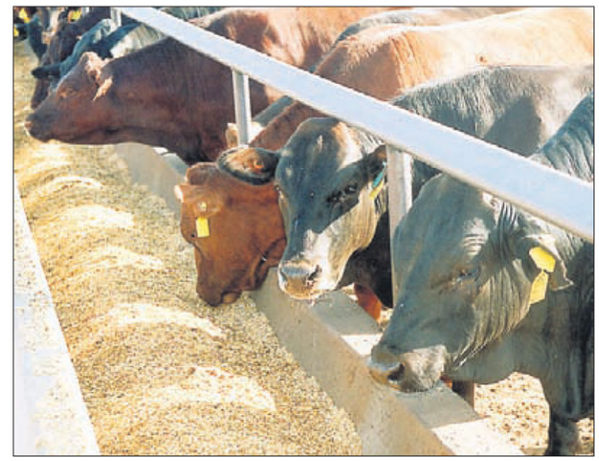
DNA markers are currently in commercial use for selection and breeding of superior cattle, either in seedstock or commercial herd applications, for a variety of traits including marbling, meat tenderness and feed conversion efficiency.

But what if the tenderness gene marker results could be used to selectively manage different cattle entering an MSA pathway?

That prospect is the subject of a research project being managed through the Beef CRC.

For the different DNA markers currently being marketed to the industry, the main focus to date has been the seedstock industry.

While improvements in the seedstock area will be passed on to the commercial sector, progress is likely to be slow, particularly for a trait like tenderness where it is more difficult to identify a clear benefit for commercial cattle breeders to invest in technology to improve tenderness, unless they are paid for it.



Uptake would be increased dramatically if a 'pull-through' effect could be created whereby improvements in tenderness could be easily identified and producers paid directly for their progress.

The MSA grading system has been developed to use commercially measurable traits to predict palatability of individual beef cuts in the carcase.

Where producers are paid on the basis of an MSA grade, inclusion of markers within the MSA model would result in an immediate commercial benefit to producers, researchers say.

If a premium was paid for carcases that carried the positive gene markers for tenderness, this would then provide an incentive for the industry to extend the use of markers from the seedstock industry to their use as a management tool for drafting animals into quality groups, which would attract a higher MSA grade and potentially at least, an additional premium at slaughter.

Consumers would also benefit from improved prediction accuracy via more consistent product.