

The Northern Breeding Program

CRC for Cattle and Beef Quality
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The Beef Quality CRC is conducting a project studying links between the genetics of beef quality and components of herd profitability in northern Australia. The key issue being addressed is whether it is possible to change carcass and beef quality attributes without compromising key fitness and reproductive performance.

The Program

For instance, does selection for meat quality and carcass yield have any effect on fertility and adaptation to harsh environments? Results from this trial should provide many answers, and further strengthen BREEDPLAN for Tropical breeds. Key indicators will be feed efficiency, female fertility, beef quality, carcass yield and adaptation to tropical environments. EBVs will be a crucial tool in the evaluation process.

The project is jointly funded by CRC, MLA and the Australian Centre for International Agricultural Research (ACIAR) with an important South African linkage. Key sponsors of the project are the Northern Pastoral Group (NPG) of Companies; Stanbroke, NAPCO, Consolidated Pastoral Co, AA Co, E & G Maynard, J McCamley, C. Briggs, Kidman Holdings and QDPI. These organisations have or will participate in the AI & breeding programs to produce calves for evaluation.

The breeding program commenced in 2000. In January 2002, 800 heifers and Brahman Composite cows were AI'd at QDPI Belmont Research Station. In total, 4,800 calves will be generated for the project over three years. There will be equal numbers of Brahmans and Red Composites, with 50-60 calves per sire. (See diagram below)

Steers will be grown out at either Tullimba (Armidale), Kiargathur Stn (Condobolin), Brigalow Research Stn (Theodore) or Crescendo (Capella QLD). At around 420 kg they will be put on feed for 110 days at Tullimba until they reach 320-340 kg carcass weight, then processed at Grantham abattoir. All steers will be implanted with Elanco HGP's to reflect typical industry practice.

The first group to be processed, some 2000 drop Brahman (Weetalaba) steers, were finished at Tullimba and slaughtered this March. 2001 drop steers are currently on growout properties and late last year weighed between 180 to 238kg.

The heifer portion have been distributed between the QDPI properties of Belmont, Toorak (Julia Ck), Swans Lagoon (Ayr) and Brian Pastures (Gayndah). They will join the breeding herds at these properties at 2yo and raise 2 calves to weaning before being returned to their owners at the end of the trial. The calves will also be returned to their owners after weaning each year.

The 2000 drop heifer calves had a variety of measurements taken, including growth, scanned meat quality traits, structural soundness, condition score, coat score, colour, rectal temps, tick & worm counts, temperament, genotype and scanned ovarian activity to estimate age & weight at puberty. The 2000 drop heifers have recently been joined to Tartrus bulls at Belmont Stn.

In summary, this major project is progressing well and should generate some valuable information for the northern beef industry in particular, and BREEDPLAN users in general. It will assist the development of breeding programs that balance the pursuit of meat quality traits with the mandatory economic requirement for fertility and ability to survive and thrive in harsh environments in northern Australia.