

98/Q09



## Producer Research Support

### Bull selection in Bowen Shire and surrounds

Bowen Beef – Greg Ashton



Beef producers from around Bowen in Queensland have put BREEDPLAN and other objective breeding technologies through their paces in a Producer Research Support bull selection project. They sought to improve per head and per hectare beef production by selecting homebred and outside performance sires.

#### Key points

- It is not possible to identify higher performing young bulls at branding, even when performance figures are available.
- When young bulls are left entire until at least 18 months of age the better bulls can be identified on both measured performance and visual traits for desirable growth and yield traits.
- There is a small increase each year in the demand for performance figures on bulls.

#### Contact details

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#### The project

Most liked what they saw. With a good dose of healthy scepticism about new technologies, beef producers in the region have traditionally chosen their bulls manually.

The Bowen Shire is a significant bull breeding area. Most breeders still rely on visual appraisal but will adopt the newer technologies if they are shown to work.

The 20 members of the group shared a former Producer Demonstration Site on Greg Ashton's property, Stratford, at Mount Coolon.

#### Objectives

1. Have all members understand genetic principles and objective selection of beef cattle;
2. Make genetic gains by using sires with superior performance (up to 25kg extra liveweight at turnoff in the first generation from genetic improvement); and
3. Encourage all members to seek and use performance information to help identify superior breeding stock.

#### What was done

Artificial insemination was used to access the best possible sires representing the breeds widely used in the region. The breeding and crossbreeding used at Stratford was Brahman over Brahman, Angus over Brahman and Simmental over Brahman. Both Australian and overseas genetics were used.

The bulls were evaluated on their BREEDPLAN EBVs, in conjunction with a visual assessment or detailed description. Overseas bulls were chosen on their BREEDPLAN equivalent scores and detailed description.

Sires were selected from the progeny of these matings for use in the commercial herd.

In addition to passing a visual assessment, homebred bulls were selected and culled on weight ratio, scrotal development at one and two years of age, and sperm morphology.

Up to 40 people attended the group's field days. Much was learned by seeing, doing and discussing the project, said Alan Laing of the Qld Department of Primary Industries. Alan said standard practice in the Qld beef industry is to select bulls at branding by eye.

"The project reinforced that it is not possible to identify better bulls at branding, even when performance figures are available," Mr Laing said.

## Producer Research Support

MLA Producer Research Support offers support funding of up to \$15,000 over three years for groups of producers keen to be active in on-farm research and demonstration trials.

These activities include:

- Producer Initiated Research and Development
- More Beef from Pastures demonstration trials
- Prime Time Wean More Lambs demonstration trials
- Sustainable and productive grazing grants.

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He said choosing bulls at branding usually resulted in progeny of high milk producing cows being identified, which is not desirable. In our harsh environment, selection for milk production selects against fertility."

But when young bulls were left entire until at least 18 months of age the best bulls could be identified for desirable traits of growth and yield on both measured performance and visual traits.

Analysis of three years of male progeny data showed the rankings of individual bulls at 18 months of age was seldom the same as those made at weaning. Mr Laing said there was resistance to change within the North Queensland beef industry with "scepticism and suspicion" about BREEDPLAN common.

However, beef producers prepared to take the time to go through interactive get-togethers soon understood the concept and its merits.

"While the region has a number of seedstock producers, few have adopted BREEDPLAN, although some are close to making the move," Mr Laing said.

Many breeders still did not understand or use performance figures to buy their bulls. This was because different people learn in different ways and at varying speed. Some bull breeders had made it clear they would only enrol in BREEDPLAN and make figures available when buyers demanded them. But progress in genetic selection is being made.

Since the start of the demonstration at Stratford late in 1995, nine herds in the region had enrolled in BREEDPLAN.

Other herds were considering adopting the technology.

"Each year there is a small increase in the demand for performance figures on bulls," Mr Laing said.

He said the project had:

- contributed significantly to the practical understanding of genetic improvement and objective selection methods;
- worked as a venue to communicate relevant research;
- generated networks of benefit to the beef industry; and
- been a useful forum to generate discussion.

Bowen beef group member James Gordon, Mount Pleasant, said the project had been a practical demonstration of the ability of current interpretation of EBVs to improve the profitability of turnoff cattle through faster growth with higher mature weights. It also showed the ability to improve future generations of breeding stock with earlier puberty, shorter gestation periods and faster re-breed.

Since seeing the Stratford project Mr Gordon has started using similar selection methods in his own herd.

"Outside and homegrown bulls have been selected on scrotal circumference, 400 and 600 day growth EBVs, with home grown bulls selected from mothers proven to be able to produce a calf every year," he said.



## MLA also recommends BeefPlan

BeefPlan is a non-traditional approach to learning. Groups of like-minded beef producers, work together as a management team to focus on property management. Importantly the learning agenda is set and controlled by the group.

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## EDGEnetwork

EDGEnetwork offers practical field-based workshops to improve productivity and profitability for the long-term.

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June 2006 / PIRD OUTCOMES

## Discussion

Mr Gordon said since the field days held at Stratford there had been a general increase in discussion and debate about the merits of BREEDPLAN EBVs and how to use them.

"I am convinced of the value of EBVs.

Any discussion, debate or demonstration that promotes a faster acceptance and adoption of BREEDPLAN is to be applauded. This was an impressive project and good value."

He said the field days at Stratford demonstrated it was not possible to select the better performing bulls on their visual merits alone. "Only with performance records can the top performers be reliably identified."

Greg Ashton, Stratford, Mt Coolon, on whose property the demonstration was run, said the project had given him confidence to maintain a bull breeding herd with selection based on performance.

"It really got me thinking about what is going on in my herd.

"We only buy bulls or semen from bulls with a minimum level of performance," he said.

The impetus to maintain pressure on selection for fertility was a high priority.

"As a result of the PIRD we've learned to use and do AI ourselves. It is now an annual event.

The project has been a positive force and I've gained a lot from it."

Alan said Stratford is a well-managed breeding and fattening operation that uses controlled mating. Yearling heifers must become pregnant to stay in the herd. Every female must become pregnant and rear a calf every year to stay in the herd. Females identified as having lost pregnancies or calves are sold. Bullocks are sold at 2.5 to 3.5 years of age; bulls are mated at 2.5% to 3% with all bulls used passing a sperm morphology test