



**Booroomooka Angus Stud
– the Munro family**

Location

Bingara, NSW

Property size

8,094 ha over four properties

Soil type

From traprock hills to loam flats, red clay slopes, some black self mulching and lighter sandy country

Average annual rainfall

700mm but variable

Growing season

Summer rainfall dominant. Frosty winters which reduces the palatability of the native grasses

Primary target market

Produce high quality Herd Book Registered Angus Bulls that sell at On-Property Annual Bull Sale held in August. Steers grown out mostly to feeder steer weights, targeting higher end markets including EU accreditation

Primary calving months

August/September

MATERNAL FAT AND FERTILITY: A CASE STUDY

For cattle breeders, deciding which traits they want to enhance in their herd is usually the easy part. Balancing the interactions between those traits is more challenging.

Beef CRC research has shown that one measure, the Rib Fat EBV, can help breeders determine a balance between two crucially important traits, retail beef yield and fertility.

The Beef CRC's Maternal Productivity project found that in broad terms, more rib fat indicates better reproductive performance in the first two joinings of a cow's life but reduces lean meat yield, and vice-versa.

It's not always that simple, because genes interact in infinitely complex and sometimes surprising ways.

But rib fat measurement can distil a lot of complex genetics into a single useful figure. The challenge for breeders like Sinclair Munro is to learn what that figure can tell them about striking a profitable balance between fertility and performance.

The Munro family has run Booroomooka Angus Stud since 1926, on country near Bingara, NSW that has been in the family since 1858.

"Keera", the Munro's home property, extends across low-fertility hill country. It is under these testing conditions that they run their 900 stud cows.

On "Glenroy", a more fertile property nearby, the Munros join 800 commercial breeders producing mostly feeder steers - an in-house performance test of their stud's genetics.

Booroomooka was one of the herds that contributed objective data to the Beef CRC Maternal Productivity Industry Herd Project. The information was used to assess relationships between rib fat, muscle, frame, weight and fertility traits.

Mr Munro says that Booroomooka has always placed importance on good fat levels. "Keera" can seldom support cattle in luxury conditions.

"We've thought that the ability to carry some fat through tough spells is insurance, and we've seen that in the field," he says.

"That has put our herd BREEDPLAN Estimated Breeding Values for Rib Fat slightly above breed average."

The Beef CRC's finding that this strategy was good for fertility, as well as the "do-ability" of cattle under less than ideal conditions, was welcome



confirmation that decades of selection has been on the right track.

Fat has its downsides, though. Mr Munro observes that putting fat on cattle is energy-intensive, and expensive compared to stacking on cheaper muscle. And too much fat is penalised by processors.

“But in a maternal herd, once a cow has put fat on, it is low maintenance. It just sits there, a sort of insurance premium, and can be used efficiently when the quality of feed deteriorates.”

“Muscle can be put on an animal more efficiently, but it takes more energy to maintain.”

Booroomooka’s clients are making their own demands. Fertile females are a key driver of profit, and cows that can hold a 3+ condition score after calving are more likely to get pregnant again than those with less fat.

Booroomooka aims to join its own yearling heifers at a weight of at least 300 kilograms, with a scanned rib fat of at least 5mm.

“The CRC work showed that fat cover in yearlings was highly correlated with how cattle ranked in later life,” Mr Munro says.

“The exception can be high milkers - producing lots of milk can drain the condition off a cow very quickly.”

The stud’s genetic selection and management process delivers high pregnancy rates for the first joining. “Keera’s” environment, typical of many properties out of the high rainfall zones, is demanding on second-calf heifers. Booroomooka’s genetic selection and management is continually improving the rebreeding rate under these conditions.

Markets are also changing in ways that put an emphasis on fat, Mr Munro reports.

“At the moment, more feedlots are turning off cattle with fewer days on feed. Also a lot more of our bull customers are targeting high-quality MSA grading specifications, including those finishing off grass.”

“That means cattle have to put on fat a bit earlier. People are looking to turn their cattle off at 18-20 months, before a second winter, and processor specifications require that stock have a minimum of six millimetres of fat at slaughter.”

Booroomooka’s own breeding objectives have

long been aimed at producing cattle at the top end of the Angus CAAB \$Index, whilst constraining selection to avoid the extreme lean genetics and keeping an eye on structural soundness, temperament and genetic diversity. The Beef CRC work has confirmed that selecting bulls able to produce progeny with a certain level of fat is crucial – at least most of the time.

“It’s about maintaining some genetic diversity and balancing the output of the whole herd,” Mr Munro says.

“And ultimately, it’s about knowing your cattle and interacting management to get the desired outcomes. There’s nothing to stop people selecting extremely low-fat cattle, so long as they are able to manage them to keep adequate fat so that fertility does not drop.”