

Getting the balance right

Market signals and the environment go hand in hand for the Munro family when it comes to selecting genetics to give their bull clientele the best chance of breeding success.

Sinclair Munro, who is a partner in the family's stud and commercial Angus operation at Bingara and Yetman, NSW, said the ultimate aim was to have cattle that could thrive in the paddock while also meeting the growth and carcass specifications for chosen markets.

But getting the balance right is a constant challenge.

"There is no point in just matching the cattle to the environment if they don't fit a market," Sinclair said.

"That is the challenge, as there is always conflict between the two, and you have got to find the happy medium."

The Munro family operates Booroomooka Angus stud, one of the oldest registered herds in NSW (dating back to 1926). Today, it comprises 700 stud cows, with 200 bulls sold annually at an on-property sale each spring. The family also runs 1,000 commercial breeders, producing mostly feeder steers for the medium to long-fed feedlot market.

The cattle are run across four properties totalling 8,094ha, with the cows run mainly on hilly country with native summer grasses.

The environment effect

Sinclair said that they knew first hand the challenges that the environment could throw up when breeding cattle; the emergence of the Japanese long-fed market in the early 1990s had forced them to make major changes to their operation.

"Up until then, our harsh environment of mainly unimproved country had determined what the cattle were, which were smaller-framed, early maturing types," he said.

"But then the B3 Japanese market became the most profitable, and it was a market that required more frame, growth and intramuscular fat, and we had to change."

New genetics

The Munros used US genetics to add frame and weight to their cattle, and also carcass quality with an emphasis on marbling.

"Back then, the US were ahead of us with recording systems and had identified higher marbling bulls, which is why we went that way," Sinclair said.

"Now we use a lot more Australian-born genetics as I believe on the whole, Australian breeders breed more balanced cattle. And the genetic evaluation tools continue to improve in Australia so that it is now possible to identify with more reliability, animals that can genetically change traits that we wish to improve."

Local conditions

Sinclair said that while their investment in genetics added more frame and growth to their herd, they quickly

found that these gains had to be balanced against the local conditions.

"It got to the point where we had to pull back as there were limitations caused by the environment we are in," he said.

"We believe that for a female to be profitable, she has to calve as a two-year-old and again at three-years-old, and we found that if we pushed some traits too much our fertility levels (in re-joining the two-year-olds after calving) would drop from 90% to 75%," he said.

The Munros also found that they had to keep a certain level of fat coverage in the herd to enable the animals to cope and remain productive during harsher seasons.

"We found there was a limit to how much fat we could keep taking off the cows, as they need to still be easy-doing and capable of putting

The Munros run a stud and commercial Angus operation at Bingara and Yetman, ultimately aiming to produce cattle that thrive in the paddock while also meeting growth and carcass specifications for chosen markets.



on some coverage to use in the drier times," he said.

"Because of the environment we are in, we use fat as a bit of an alarm bell within our breeding program for maternal productivity and generally we don't like to see our average BREEDPLAN rib fat levels get below -0.1."

Market requirements

Sinclair would like to run cattle that are 'genetically fatter' for their environment but said it would limit the types of market they could sell steer progeny into.

The Munros found that if the average mature weight of their breeding cows (in store condition) exceeded about 550kg liveweight, their reproductive capacity started to decline in the cow pastures (with higher stocking rates and low nutritional quality grasses).

"We look closely at maturity patterns and use the mature cow weight estimated breeding value (EBV) compared to the 600-day weight EBV," Sinclair said.

"If the ratio is too high, then we get a little concerned if there are nutritional limitations and the females put all that energy into growing at a later age rather than putting energy into re-breeding."

On the positive side, the Munros have found that selecting cattle for high marbling does not appear to have any negative effects on their cow productivity.

"That is provided we do not single trait select for IMF," he said.

Management strategies

While the Munros have tempered their genetic selection to suit their environment, they still had to make management changes to try and optimise the herd's growth and carcass potential.

"Even with keeping a sharp eye on matching genetics to the environment, we do hit some really tough times," Sinclair said.

"There is no way we can match genetics to the really bad years. In that case, management decisions are made quickly. We use early weaning in those tough years, but do not like to use it every year."

In recent years, the Munros have also invested in more fertile land to grow out their young cattle.

"It was actually in our business plan to purchase better quality country to optimise the growth of our heifers and young bulls," Sinclair said.

"With our increased growth and carcass attributes, we needed to grow the young stock out more quickly. The better country enables turning cattle off at heavier weights at a younger age.

"In that mix, we have invested in irrigation to grow silage so our sale bulls can phenotypically display their genetic potential to the prospective buyers. Many buyers still do not have enough faith in genetic evaluation systems; they like to see it visually."

Breeding objectives

Sinclair said the challenge of maximising production while trying to fit market specifications and environment was made clear when they developed their breeding objectives.

Firstly, they wanted a cow that was low-maintenance and highly fertile that could remain sound and produce a calf every year from two years until at least eight years of age.

Sinclair said, with good nutrition, they wanted each calf to be capable of reaching 400kg liveweight at 12-16 months. They also wanted these calves to be flexible enough to suit the 100-day grainfed market, marble score 2-3 with 12mm fat; or kept on grass to 550kg with a minimum 8mm fat; or long-fed for 240 days at a marble score 3-5 at up to 400kg carcass weight.

"That is all in the ideal world, but obviously you have the constraints of the environment and genetic



Producer information

Producers: Munro family

Location:
Bingara and Yetman, NSW

Property area:
8,094ha across four properties

Enterprise:
Stud and commercial Angus cattle; cropping

Goals:
To breed cattle that thrive in the paddock and meet export market specifications

Livestock:
700 stud cows, 1,000 breeders

Pastures:
Mainly native summer grasses with forage oats (on breeding country), lucerne and tropical grasses (to grow out younger stock)

Soil types:
From traprock to loam flats, red clay, black self-mulching soils and some lighter sandy country

Annual rainfall:
700mm (summer dominant, highly variable)

antagonisms you are trying to work in," he said.

Looking ahead, Sinclair said breeding productive, resilient females was a key challenge due to the trend of breeding herds being shifted onto more marginal country due to the rising cost of farming land.

"As stud breeders, if we don't invest and make changes, our customers get left behind, and as the cow herd gets moved to more marginal country, we have to make sure the females we are breeding are a little bit more resilient and productive."

More information

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