A Seedstock Producer's Perspective

Breeding for Fertility

Breeding for improved fertility has been a key focus for Lyn and Brett Coombe, the owners of Roxborough Brahman stud based in the Moura district, Queensland. TBTS Technical Officer, Paul Williams, recently caught up with Lyn to discuss how she and Brett have utilised BREEDPLAN to improve the fertility of their breeding herd.

Q: Could you tell us a little about the Roxborough Brahman herd?

Roxborough Brahman Stud was started back in 1977 by Brett and his three brothers at the family property Roxborough north of Rockhampton. Now based in Moura, still in the Central QLD area, we run and calve out 200 registered cows and market between 50 – 70 grassfed bulls per year.

"Everyone has got fertile females in their herd, but we need to be able to identify them and in doing so identify those genetics producing the most profitable animals by using the DTC EBV"

Q: What are the key traits that you focus on in your herd?

Adaptability, fertility, moderate growth & docility. With our grazing management focussed on optimising stocking rates, the ability to maintain body condition will be very important going forward.

Q: What was it that prompted you to focus more on the fertility of your herd?

Within our herd we had some females who were able to get in calf every year regardless of the season but we were also sending heifers to the meat works who couldn't deliver a calf by the age of three and cows that weren't rebreeding while lactating or raising a calf annually.

We started to put pressure on our females to deliver along these parameters but were using bulls not produced under the same or similar management program. We were seeing the negative effects of using bulls selected purely on growth with their daughters being later maturing, high maintenance type females unable to produce a calf by three and rebreed while lactating. This was backed up by the research being done in the northern beef industry.

Q: Which fertility traits are you collecting for BREEDPLAN?

Scrotal measurements are collected at 400 days on the bulls and every year we submit bull in & bull out dates for DTC. We also weigh cows at weaning each year to monitor the mature cow weight of the herd which we think is an integral part of the profitability equation.

We are also part of the "Commercial cow fertility" project supported by MLA Donor Company in conjunction with CSIRO looking at more DNA markers for female fertility and have been part of the Repronomics project run by AGBU which is also an MLA Donor Company project concentrating on cow fertility in the North.

Q: Do you have any additional herd management practices that you utilise to help identify more fertile animals?

We use multiple sire mating to avoid failings of single sires, and all calves are sire verified through DNA. Our older cows have a 90 day joining period which traditionally started 1 December each year (normal practice in our part of Queensland). Over the past four years, we have crept the 90 day joining forward by two weeks each year. Our older cows are now joined from 1 October. This means the cows calve out from the middle of July, and this puts them under pressure nutritionally because this is well before the season ever breaks.

We now join yearling heifers and have done so for the last seven years. The yearling heifers have a shorter 45 day mating period from November 1 til December 12, and are joined regardless of live weight (this year they averaged 191 kg into mating). This challenges the heifers, and while success has been variable due to joining weight and season, it amazes us that it is not necessarily the heaviest that gets in calf.

Of our Brahman females that calf as two year olds, we allow only one miss in the next three years. Heifers that don't calve until 3 years old are never allowed to miss and, as with any other empties, these are culled. We value longevity in our herd. If a cow has been around this long with that kind of production record there are many characteristics where the boxes are ticked e.g. structural correctness, udders etc. The oldest cows in our herd who have calved every year without a miss, regardless of what they look like, are the very best cows in the herd in our opinion.

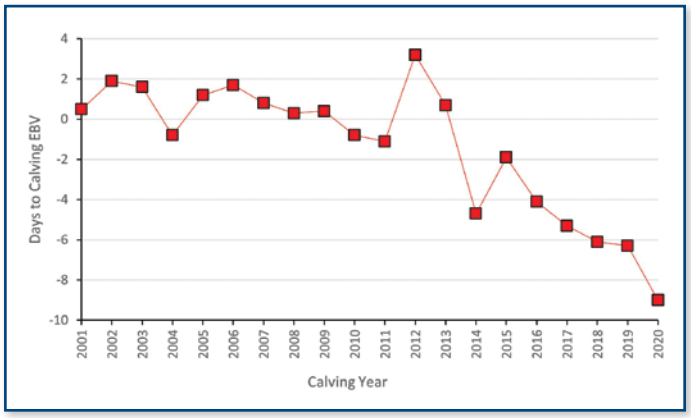
Q: What would you say to those that struggle to collect Days to Calving information in their own herds?

Most people keep diaries or have a calendar or whiteboard on the wall therefore it's very easy to record bull in & bull out dates. We find it doesn't take much time or effort to record this information. Everyone has got fertile females in their herd, but we need to be able to identify them and in doing so identify those genetics producing the most profitable animals by using the DTC EBV.

Q: Has there been a noticeable response to the collection of fertility data and use of Fertility EBVs in the Roxborough herd?

Even though we have been putting more pressure on our breeding herd by joining earlier and calving further ahead of the wet season break, we have noticed that our pregnancy rates have improved. Around seven years ago we were averaging a pregnancy rate of ~80%, and in the last three years, have averaged ~90%. This is despite the last three years being well below average rainfall. We credit the improvement in our pregnancy rates to the increased re-breed rates of our first calf heifers and second calf cows. We are continually surprised at how many of the two year old calvers are pregnant following their second and third matings.

We have also made genetic progress with the herd, and this is reflected in our Fertility EBV trends. Our trend for DTC was slowly improving until 2012, where a single bull pushed us in the wrong direction. Since then, following the introduction of Alf Collins Snr genetics (Belah Valley), we have made rapid progress in DTC. Our 2020 calving drop averaged -9 for DTC EBV (Top 25% of the breed). We have also made progress for Scrotal Size, and this reflects our observation that our bulls are maturing at a younger age.



The Roxborough Brahman Days to Calving (DTC) genetic trend for the 2001 to 2020 calving years. Rapid progress has been made since 2012, with the 2020 calving drop averaging -9 (Top 25% of the breed).

Interestingly our mature cow weight (MCW) has become lower which has in turn allowed us to run more cows and produce more kgs per hectare than previously. Those cows with the lower MCWs can maintain body condition and seem to be able to rebreed quicker regardless of the season.

Q: Do you have any other advice for those that are looking to improve fertility in their herds?

Within all herds, there are cows that calve every year on time and deliver a weaner despite the seasonal conditions. Everyone has them. As previously mentioned, the management program put in place by breeders is equally as important as BREEDPLAN EBVs. We get rid of the free loaders - the cows that are lazy and don't deliver a calf on time every year.

If a strict culling program is implemented with this management strategy in place then the most fertile females will select themselves. By recording each cow's performance and collecting this information it is then on hand for bull buyers to access.

I see our role as seedstock producers to combine all of the objective measurements, to look at the temperament, market suitability and the whole package. The colour and shape of the package may not be perfect to some peoples' eyes, but for us if we tick most of the boxes, produce more kilograms per hectare and provide the industry with well described, predictable, profitable genetics then we are doing our job. You can't manage what you don't measure!!