



Alf Collins Jr.

Case Study: Brahman reproduction at Gundaroo

northern environment, so we need to create cattle that work under these conditions. It works well as a genetic selection tool as well as a management tool.”

The commercial heifers are mated for the first time as two-year-olds at around 280kg.

However this year the Collins’ are mating their stud heifers at ‘Gundaroo’ as yearlings, averaging 230-240kg, because of the better quality nutrition on the brigalow country.

Heifers are joined for 90 days and the cows are joined for 105 days with the first mating groups being joined in October.

The Collins aim to apply selection pressure on the females to breed early in the season. Generally speaking the wet season begins in December, so mating often occurs before the rain when females are lactating, consuming dry grass and losing weight. “We’re really interested in the cows that conceive in that period,” Mr Collins said. “We prioritise that information from the dams when we’re selecting our bulls.”

All heifers are mated and herd records on all stud females are submitted to BREEDPLAN to generate days to calving and mature cow weight EBVs. Calves are weaned at 5+ months of age depending on cow body condition and are grown out on grass with no supplements.

The Collins’ focus on sire selection to make genetic gain in their herds though use of extensive herd records and BREEDPLAN EBVs.

“We want sires from the females with the most number of calves, the shortest calving interval and calving early in the breeding season,” Mr Collins said.

The Collins’ identify cows with negative (i.e. favourable) days to calving, and then look at the bull’s performance for age of puberty, growth, temperament, muscling and structural soundness.

“We look at four generations of females when selecting bulls,” Mr Collins said. “If there’s four generations of females that have consistently high fertility, there’s a fair chance that’s no longer luck, that’s reliability, and we want that bull to pass it on to the next generations. For us, reproduction has got to be first. If that’s not there we don’t have to look

any further.”

He says that once fertility is sorted, then traits such as muscling and growth can be more easily bred into the herd.

EBVs are generated for scrotal circumference and 200-, 400- and 600-day weights. All bulls generated in the stud herd are kept until 600 days of age so there is a complete dataset for decision making. The Collins’ place as much importance on identifying poor genetics as they do on identifying exceptional genetics.

The Collins’ also identify bulls that reach sexual maturity early in the season. Scrotal circumference is measured every 30 days from 400 days of age. The serial scrotal measurements are used to determine age of puberty, which is defined by the age at which a bull has a scrotal circumference of 27cm.

“We start off in the dry season, so we’re looking for cattle on the worst of our nutrition but are sexually active. There are cattle that will reach puberty regardless of what nutrition is in front of them. Those sires get priority in our bull selection.”

Bulls are joined with same age heifers at 18 months to two-years of age in one large mating group. All progeny from these matings are DNA parentage tested. Aside from the ease of managing the first joining in one large group, multiple-sire mating also provides a way to find the most active bulls.

The Collins’ keep about 60% of their males as bulls and sell 100-120 bulls a year. The majority of their bulls are sold into the north and west including the Northern Territory and Western Australia

“When you sell bulls into the north they’ve got to compete with mickey bulls and other bulls that commercial breeders haven’t got control of, so it is of interest to buyers to know which bulls are more dominant.”

The Collins’ keep three generations of female information on each sale bull (including number of calves, calving interval, days to calving EBV), plus the bulls scrotal circumference, weight, age of puberty, weight at puberty, month in which puberty was reached, 200-, 400-, 600-day growth EBVs, and days to calving EBV on the bull (if available).

Reproduction comes first for ALC Brahman run by Alf and Louise Collins of ‘Gundaroo’, Nebo, in Central Queensland.

Alf Collins Jr is the third generation of the Collins family to breed Brahman in northern Australia.

Recent research outcomes from the Beef CRC’s northern Australian program have validated the value of the Collins’ strong selection pressure on fertility.

The Collins’ run 500 stud females on ‘Gundaroo’ and 2000 commercial females on ‘Tondara’ near Collinsville. All bulls are bred on ‘Gundaroo’ and used in the stud and commercial herds. The stud herd has been closed for 20 years and has recently been divided for family reasons. Mr Collins said the herd does not need to be closed, but finding other genetics that have had the same selection pressure applied so they can make genetic progress in their herd is difficult.

The Collins’ expect all females to deliver a weaner every year off grass with low inputs and no supplementary nutrition. The stud herd has the same management as the commercial herd. Mr Collins says the only selection criterion on a female is she has to conceive a calf, wean that calf and reconceive within 12 months.

Calving starts around August and all the calves are born before the middle of December.

“We don’t falter on culling non-producing heifers or cows,” Mr Collins said. “There are no exceptions, regardless of season. The reason being is that’s reality. From a seedstock point of view we live in this