

Australian test for polled gene: Case study in Brahman



The Streeter family

The recent release of the CRC polled gene marker test for industry validation prompted a keen response from Brahman breeders with 38 studs supplying 402 animals for testing. The Streeter family of White Kangaroo near Bowen were among the studs to supply animal samples and phenotypes for the study.

Sarah Streeter says her family's Fairy Springs Brahman stud has been selecting for polledness in their herd for the past 15 years, mainly because they value the fact that polls require less labour at branding and there is less stress imposed on the animal. "We recognized it as a beneficial trait to have in our herd," she said, "and I think dehorning will become more difficult in the near future because of welfare pressures."

The Streeters sell 80-100 bulls each year. "In the last six years or so the breed has certainly seen premiums for polled bulls at auction sales and we get a lot of requests for polled bulls in our paddock sales," says Ms Streeter. She believes the CRC marker test will be invaluable for their stud and for buyers wanting rapid genetic progress for the polled trait in their herds. "The frequency of the polled gene is still low in Brahmans, so I believe that anyone who wants to make genetic progress for polled will be valuing a homozygous poll. Without this test we have no confidence in whether an animal is a homozygote or a heterozygote," she said. Based on Brahman results from the validation study, if a bull tests homozygous polled you can feel confident that the result is about 90% accurate in predicting his status. A homozygous polled bull mated to a predominantly horned cow herd will result in the progeny being scurred or polled in the first generation.

Ms Streeter said they will definitely use the test as a marketing tool and intend to test all of their polled auction bulls, bulls retained for use in their herd and paddock sale bulls if requested. Ms Streeter adds, "Up until now we couldn't place any more value on one animal than another just on their polled phenotype. But now I would certainly expect to see a premium on a homozygous polled bull. Given that though, the animal still needs to be able to tick all the other boxes for reproductive soundness and have good carcass characteristics as well."

The Streeter family provided animals used in early research which led to the discovery of the poll gene test.

Australian test for polled gene: Case study in Hereford



Ian Locke, of Wirruna Poll Hereford stud in southern NSW

It was good news for Ian Locke when he learned the Beef CRC was developing a polled gene marker test for Australian cattle breeds.

Mr Locke, of Wirruna Poll Hereford stud in southern NSW, says he has always dipped into the horned Hereford gene pool because it's around 50% of the total Hereford population.

"I find it hard to sell horned bulls within my client base, and they generally prefer non-scurred bulls, but I've always been able to use horned bulls and use the dominance of the polled genes to our advantage," he says. "However we've had to be careful not to increase the frequency of the horn gene too much and we've always wanted to identify carriers of horns."

Mr Locke has been using the US based IGENITY horned/polled test for the past 5 years to test all sires he uses in his herd and donor cows for embryo transfer programs. He was able to offer about 80 test results from the US test, including samples and phenotypes for the test animals and their progeny, to help validate the CRC test. Results from both tests were 100% consistent. "At this stage the CRC test is working a treat for what I want," says Mr Locke.

Up until now Mr Locke has tested about 15% of his sale bulls. In his most recent sale a few buyers competed strongly for a number of tested homozygous polled bulls, and the premium paid was sufficient to pay for the next calf crop's tests. Mr Locke believes the amalgamation of the Poll Hereford and Hereford societies has increased demand for homozygous polled bulls. "The CRC test can give buyers the confidence to come in and buy a bull that will poll up everything in herds with horns."

Mr Locke has just tested his entire drop of 180 weaner bulls. He says he's committed to using the test for the next 4-5 years to determine the frequency of the polled gene in his herd and to minimise wastage associated with castrating horned bulls. Mr Locke is looking forward to having the results in hand to decide how to use them strategically for both breeding and marketing.