

# Breeding their horns off -- a winner

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This is a brahman cow and calf on the CSIRO Belmont Research Station. Credit: Beef CRC

A team of scientists led by CSIRO's Dr Kishore Prayaga has been awarded a prestigious Australian Museum Eureka Prize for its work to develop a simple genetic test which has the potential to end the need to dehorn cattle in Australia.

Horn removal is a routine practice carried out by beef producers to reduce the incidence of cattle injuring other cattle and their handlers.

About half of Australia's 21 million beef cows and calves are born with horns. However, dehorning causes short term pain and stress for the animal, is labour-intensive and time-consuming for producers, and can reduce animal weight gain for several weeks following the procedure.

The team, which is funded by the Beef CRC and Meat and livestock Australia (MLA) and involves scientists from CSIRO and Queensland Primary Industry and Fisheries (QPIF), has been researching alternatives to current dehorning practices.

"We have discovered a DNA marker in *Bos indicus* (tropically adapted cattle e.g. Brahman) which identifies the cattle that will produce polled or naturally hornless offspring," Dr Prayaga said

"Our aim is to commercialise this work into a simple test, so that cattle producers in the extensive, rangeland conditions in Northern Australia will be able for the first time to increase the proportion of polled [cattle](#) in their herd."

The team has also been working on effective pain reduction and alleviation strategies for producers to use in the meantime.

According to QPIF's Dr Carol Petherick short term strategies are needed because genetics can't solve the problem overnight.

"We have experimented with local anaesthetics and analgesics, and different animal management strategies to reduce and alleviate pain," she said. "Experiments are continuing to find the most effective short term solutions while producers focus on breeding entirely polled herds in the future."

The team, which includes Dr Max Mariasegaram, Post-Doctoral Fellow and PhD student Stephanie Sinclair from CSIRO, was thrilled to receive the \$10,000 Voicless Eureka Prize for Scientific Research that Contributes to Animal Protection and the recognition that it brings.

Source: CSIRO ([news](#) : [web](#))

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