

Crossbreeding trial Search for sustainable, simple system

Hereford hybrid vigour tested

A SEARCH for a sustainable and simple crossbreeding system has led a Tas Angus enterprise into becoming the vehicle for a landmark research trial undertaken by Herefords Australia.

Musselroe Beef runs 1800 Angus breeders across three properties totalling 5500 hectares and invested in Hereford genetics three years ago to capitalise on hybrid vigour.

The quest by Musselroe Beef managing director Greg Bradfield to quantify results led to a partnership with Herefords Australia to conduct a black baldy crossbreeding trial.

The trial will evaluate traits valued in the whiteface cattle by the commercial industry.

Live, carcaseweight and meat eating quality data will be collected on the progeny through the supply chain, from birth to slaughter.

Reproductive capacity data will also be collected on female black baldy progeny.

The project has received 50 per cent cooperative funding during an initial three-year period from the Meat & Livestock Australia Donor Company.

The trial is being run at Cape Portland, a 4066ha property in north east Tas, fringed by rugged coastline, pristine beaches, conservation areas and owned by Tas Hydro.

The property, leased by Musselroe Beef, has 56 wind turbines that generate enough electricity to power 50,000 households.

The trial is a partnership among Musselroe Beef, Herefords Australia, the University of Adelaide, Greenham Tas and MLA.

Cows and heifers were artificially joined to 11 industry leading Hereford sires, and four Angus sires as a comparison, last spring.

Key points

- Large-scale black baldy trial
- First program started in spring 2014
- Comparison of commercial traits

The Hereford sires included are Daxs Robinhood H38, Elite Revolution 4R G241, Gentravor Wallace H427, Morganvale Fillmore, Morganvale Forsyth, Pine Hill Douglas D543, River Perry Fergus, Warwick Court Glencoe G040, Wirruna Echuca E99, Wirruna Gabu G134 and Yaven Vale Gurr G031.

Musselroe Beef is a family business, founded in December 2009, running 5000 cattle.

Mr Bradfield said the business aimed to produce quality grass-fed beef using regenerative agricultural practices.

The integrated operation runs cattle from calving to processing, supplying Greenham's premium brands, including Cape Grim, to key export markets.

Calves are weaned in March-April and finished to 480-550 kilograms liveweight.

"We wanted a sustainable crossbreeding system which was easy to manage and would give us a good outcome while retaining the F1 female," Mr Bradfield said.

"It was timely when Herefords Australia contacted us to see if we would be interested in being involved.

"What we were seeing at weaning time was hybrid vigour coming into play with a more robust, thick-set animal with slightly higher weights.

"The exciting part of this trial is joining the F1 females to see what benefits there are on the maternal side – typically if we just weigh the carcass, the trial would finish then."

Set in a 650 millimetres rainfall zone, Cape Portland comprises sandy loam soils supporting native grasses and improved pas-



HERD WORKS: Beef producer Greg Bradfield, Musselroe Beef, Tas, aims to produce quality grassfed beef using regenerative agricultural practices.

tures of phalaris, fescue, cocksfoot and subclover.

Rainfall and grazing budgets are assessed monthly, and pastures are not grazed at less than 1000kg of dry matter/ha.

"We use a grazing pressure index, which is the long term stocking rate divided by long-term rainfall, to give our position relative to a benchmark in terms of carrying capacity per 100mm of rainfall," Mr Bradfield said.

"We normally achieve 502DSE days/ha/100mm of rain."

Weaners are cell grazed in mobs of 600 and cows in mobs of 300.

"We have a number of strategies in place to allow us to manage periods of low rainfall," Mr Bradfield said.

"Our main strategy is to have a backrounding mob on the farm comprising roughly 20 per cent of our stocking rate.

"If we see rainfall is dropping and we should be lowering our stocking rate, we move this mob to a second property at Nebowla, Tas."

The 358 maiden heifers were artificially inseminated to Hereford and Angus sires across two cycles in September-October, followed by 305 first-calf heifers, and pregnancy scanned in

Highly productive genetics studied

UNIVERSITY of Adelaide's School of Animal and Veterinary Science Prof Wayne Pritchard said black baldy cattle had proven to be highly productive across a range of studies in the past 50 years.

"Given the genetic changes in breeds, it is worth evaluating them on an ongoing basis," he said.

"In addition, this trial has been designed to progeny test young bulls with links into other projects.

"It will help genetically benchmark the trial, and also provide valuable information for the development of genomic selection in both breeds."

Prof Pritchard said the trial which the university was involved in aimed to measure traits not included on Breedplan.

These included full MSA grading of steers, age at puberty of heifers, and body condition of cows during winter.

"The project is well designed and is a long-term partnership between a leading producer, breed society and the university," Prof Pritchard said.

"We will look for opportunities to add student projects to the trial and are delighted to be part of such a partnership."

December by Handley AB Breeding Services, Wynyard, Tas.

"We had a 73pc conception rate to AI and a total conception rate of 81pc with the back-up bulls," Mr Bradfield said.

Maidens began calving in June while older females were due to calve from August 5.

At calving, the dam's identification and birthweight of the calf will be recorded.

Calves will be weaned at seven to eight months, their 200-day weights collected and then fin-

ished on improved pastures at Nebowla, while the heifers will remain at Cape Portland.

The steers will be finished to 450-550kg liveweight and processed at Greenham Tas.

Greenham's livestock buyer Graeme Pretty prefers to buy black baldy cattle for processing.

"Black baldies will always be heavier and as good, if not better, than any other beast in that mob," Mr Pretty said.

"I go out of my way to buy them at every opportunity."

Behind the headline

HEREFORDS Australia chief executive officer John McKew said the project was an exciting opportunity to generate controlled, accurate data on the commercial value of crossbred beef genetics using Hereford sires over Angus females. "While most producers never dispute the qualities of the black baldy and its undeniable contribution to profitability, more definitive data analysis on the value of the hybrid vigour effect of this crossbred is considered critical," he said.