

MORE RESULTS FROM CROSSBREEDING TRIAL

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Simmental Australia (Dec 1994)

Progeny from Belgian Blue bulls continue to record the highest weight for age over six other breeds, in research which may have far reaching implications for Australia's beef cattle industry.

This long term trial is underway in the South-East of SA and involves inseminating 600 Hereford cows with the semen from seven breeds representing 26 bulls each year for three years.

Those supervising the project are Dr Wayne Pitchford of the University of Adelaide's Waite Campus and Mr Mick Deland of the SA Research and Development Institute, Struan.

Dr Pitchford said the cows dropped their first calves in autumn 1994 and the calves had so far been weighed every 50 days from birth in this project which is funded by SA's Cattle Compensation Fund.

At 100 days the Belgian Blues came out on top, having been the third-heaviest at birth.

When all calves were reweighed in November at the 200 day stage, the average weight of the Belgian Blue crosses was 206 kg. Then followed South Devon (200 kg), Hereford and Limousin (199 kg), Angus (198 kg), Jersey (187 kg) and Wagyu (180 kg).

"If average breed differences are more than 11kg, then we consider this significant," Dr Pitchford said,

"So the differences between the Angus and Jersey crosses is significant and the Wagyu, too"

Dr Pitchford said than in calculating the average weight of the calves, data had been adjusted for:

- Sex - whether the calf was male or female.
- Type of birth - whether the calf was a single or twin, all twins having been fostered and raised as singles.
- Their location - the herd is split between Struan and Wandilo nearer Mt Gambier.
- The age of the dam.

He said that between the 100 and 200 day stages, the South Devon sired calves had exhibited high growth rates compared to their performance between birth and 100 days.

"It is possibly surprising that the Angus, Hereford, Limousin and South Devon calves are so close together in their weights at 200 days. Purebred Hereford calves are performing as well as many of the crossbred calves.

"And it is also surprising that Jerseys are growing faster than the Wagyu."

Mr Deland said the latter were popular in Japan, having originated from the Korean Black breed.

He said some Wagyu had Jersey in the subsequent breed development which might explain the brindled coat color and similar performance so far.

The really high marbling Wagyu types came from the Kobe province - hence "Kobe beef".

The calves were also tested for fat depth at the 200-day stage, with the average level being highest in Angus (2.3 mm) and lowest in Belgian Blues (0.5 mm).

Other recordings were Jersey, 2.2 mm; Wagyu, 2.1, Hereford, 2.0, Limousin 1.6 and South Devon, 1. 1.

"While the maximum fat depth recorded was 6 mm, there was a large number of calves with undetectable fat cover at the 200-day stage," Dr Pitchford said.

"Many animals are only beginning to get into the fattening phase. "

He said the next weight recording would be done at 250 days and in late January, muscle biopsies for fatty acid would be conducted by Dr Brian Siebert of the CSIRO.

These would show whether there were any breed differences in fat quality - that is, the relative levels of unsaturated and saturated fats (In other preliminary studies the Wagyu and Jerseys have had more unsaturated fat than the other breeds).

Dr Pitchford said the 1994 drop calves would go into a feedlot in autumn 1995 - probably for 200 days and weighings would continue. "We are still looking for a feedlot prepared to take the calves," he said.

The Hereford cows had again been mated to the 26 different sires representing the same seven breeds, and this would also occur in 1995.

"The last slaughter will be at the end of 1996 when the 1995 drop calves are 600 days old," he said.

"While these results are specific for the South-East, they provide a guide as to what might happen in most temperate environments and are consistent with results obtained at Clay Centre at Nebraska in the US.

"Ultimately we hope, to find out the most appropriate breeds to use as terminal sires to target specific markets."

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