

Australian Feedlot Study of Cattle Breeds and Crossbreeds Suited to the Grainfed Japanese Market

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Australia Meat Holdings Pty Limited (AMH) is Australia's largest processor and exporter of grass and grain fed beef. AMH operates an integrated network of eight abattoirs and four feedlots throughout Queensland, New South Wales and Victoria.

Its **Beef City** abattoir and feedlot near Toowoomba is a dedicated grain fed plant drawing its stock from the 25,000 head feedlot adjacent to the abattoir and supported by feedlots at Mungindi on the Queensland/New South Wales border which has a capacity of 8,000 head, and at **Caroona** on the Liverpool Plains in Central New South Wales which has a capacity of 25,000 head,

The Company's fourth feedlot with 12,000 head capacity is located at Beaudesert in south-east Queensland which provides short fed (i.e. 100 days on feed stock) to its nearby Beaudesert abattoir where they are processed for the Japanese, Korean and domestic markets.

AMH has plans underway to increase its feedlot capacity by developing a 60,000 head feedlot PRIME CITY near Griffith in New South Wales. Stage One which will accommodate 35,000 head should be operational by May 1995. Cattle from this feedlot in the immediate future will also be processed at Beef City.

Eighty-five percent of AMH's production of 235,000 tonnes per annum from a kill of 1.2 million head is exported.

The Beef City abattoir is currently processing 600 head of grain fed cattle per day. This plant is the cornerstone of the AMH grain fed marketing strategy.

The Company strategy is quite simple and in essence requires firstly that we develop a broader base of export markets for grain fed beef, thus becoming less dependent on Japan and, by grading our products, seek to distance our grain fed investment from the gross fed/short fed price linkage. Simply put we wish to operate under the US price umbrella.

The cattle at Beef City are graded on the basis of meat colour, fat colour and marbling score using the objective AusMeat chiller assessment system. We do not sell from Beef City on the basis of days on feed as this is, in our opinion, a subjective standard and passes to the importer/wholesalers the grading 'profits' that they will gain in Japan and elsewhere by re-grading beef sold on a days on feed or straight run basis. Our objective at Beef City is to maximise the production of beef with a fat colour of 0 - 3, a meat colour of 1 - 3 and a marbling score of 2+. This standard broadly equates to the US Choice Grade.

To achieve this objective, the Company needs to better identify, prior to purchase, the potential carcass grading performance of the feeder steers. For five years, AMH has been collecting data on the performance of all breeders' cattle killed at Beef City. By increasing the data base, AMH is working towards a system where it will only source animals from those breeders who can, with a high degree of predictability, achieve the performance required by specific markets. The benefits to those identified suppliers include less fluctuation in their returns, compared to those producers supplying to the more volatile grass and short grain fed beef market.

However, this trial has also identified producers whose cattle have characteristics which are desirable for the short fed market and these cattle also have a place in AMH's feedlots. It should be noted that from AMH's annual kill of 1.2 million only 12% are killed at Beef City - whilst grain fed animals account for 25% of AMH's slaughterings. This report details the results of the most recent trials held at Beef City/Caroona feedlots.

Feedlot Trial Operating Conditions:

16,668 steers representing 534 breeders were inspected and purchased by AMH livestock buyers:

10,567 steers from 321 breeders were consigned to Beef City feedlot.

6,101 steers from 213 breeders consigned to Caroonna feedlot.

The cattle were purchased non-breed specific, but were required to be "account of the breeder", four teeth or less, individually 400kg to 500kg liveweight. Receivals commenced at the feedlots on 6th September '93 and concluded on 22nd December '93.

Vendors were invited to Beef City to see their animals prior to slaughter and after being chiller assessed, were given full details on the individual performance of their animals. This information was only made available to vendors and was not publicised.

This document will enable participants in this trial to compare their individual *performance with* breed average and will also afford interested parties the opportunity to compare performance between breeds. However, we trust this document highlights the variability not only between breeds, but also within breeds. Variability is in our opinion the greatest factor,

This trial is not a scientific experiment, but rather reports statistics collected in our trial. No attempt has been made to quantify the variability of:

- 1 Animal health and grazing conditions prior to arrival.
- 2 Travelling distance from property of origin to feedlot (some animals came from as far away as Mareeba in North Queensland and Mt Gambier in South Australia).
- 3 Climatic conditions prevailing throughout the feeding period.
- 4 Compatibility of animals within a pen.
- 5 The commercial constraints of the trial resulted in not all cattle being fed for the same number of days. The days on feed ranged from 149 to 167. However, for comparative purposes, all data has been reported as the actual days on feed basis.
- 6 The Commercial constraints mentioned above resulted in a decision being taken to feed the Angus cattle at Caroonna feedlot on a high roughage ration for the first fifty days and hence this group had slightly less days on the finishing ration. This may have affected performance criteria.
- 7 No allowance has been made for any possible variance in results between carcasses which were chilled overnight and those carcasses which had a chill period of more than one night.
- 8 This report should be considered as two mutually exclusive trials and the differences between Beef City and Caroonna Feedlots performance is attributed to some of the above factors. The rations fed were formulated on a similar base energy requirement with the feed commodities utilised varying at both feedlots due to cost and supply.

This collection of data will be ongoing and currently, the Company has a further 17,000 steers on feed, representing 500 breeders. Information from this database is being used to value the worth of individual breeder's feeder cattle to AMH and a purchasing policy based on individual performance is now in place.

In closing, AMH would like to take this opportunity to thank trial participants for their support and interest in this concept.

Beef City Santa Gertrudis Cross Hereford

2 Consignments Santa Gertrudis cross Santa/Hereford

17 Consignments Santa Gertrudis cross Hereford

Beef City Santa Gertrudis Cross Shorthorn

20 Consignments Santa Gertrudis cross Shorthorn

2 Consignments Santa Gertrudis cross Hereford/Shorthorn

Beef City Santa Gertrudis Cross Other Breeds

1 Consignment Santa Gertrudis cross AngUs/Hereford

1 Consignment Santa Gertrudis cross Brahman

3 Consignments Santa Gertrudis cross Devon

1 Consignment Santa Gertrudis cross Droughtmaster/ Hereford

1 Consignment Santa Gertrudis cross Limousin/Santa

1 Consignment Santa Gertrudis cross Santa/Brahman

Beef City Shorthorn

All 13 Consignments listed were Shorthorn or Poll Shorthorn. Crosses of any other description are listed elsewhere.

Beef City Other European Crosses

1 Consignment Limousin cross Santa Gertrudis

2 Consignments Limousin cross Hereford

1 Consignment Limousin/Angus cross Hereford

2 Consignments Maine Anjou cross Shorthorn

1 Consignment Maine Anjou cross Hereford

3 Consignments Soler cross Devon

2 Consignments Saler cross Santa Gertrudis

1 Consignment Saler cross Shorthorn

4 Consignments **Simmental cross** Hereford

1 Consignment **Simbrah**

1 Consignment **Simmental/Hereford** cross Hereford

1 Consignment **Simmental cross Simmental/ Shorthorn**

1 Consignment South Devon cross Hereford

Beef City Other Breeds and Crosses

4 Consignments Angus cross Hereford

1 Consign men f Angus cross Angus/Santa Gertrudis

- 1 Consignment Belmont Red
- 4 Consignments Belmont Red cross Droughtmaster/Shorthorn
- 1 Consignment Belmont Red cross Chianina
- 2 Consignments Brangus
- 1 Consignment Brangus cross Angus
- 2 Consignments Murray Grey
- 2 Consignments Murray Grey cross Hereford
- 3 Consignments Shorthorn cross Devon

Caroona Other European Crosses

- 2 Consignments **Simmental cross Hereford**
- 1 Consignment **Simmental cross Simmental/ Shorthorn**
- 2 Consignments **Simmental/ Hereford** cross Hereford
- 1 Consignment **Simford**
- 1 Consignment **Simmental** cross Angus/Hereford
- 1 Consignment **Simmental** cross Hereford/ Shorthorn
- 1 Consignment Limousin cross Devon
- 2 Consignments Limousin cross Angus
- 1 Consignment South Devon cross Shorthorn
- 1 Consignment Charolais cross Charolais
- 1 Consignment Charolais cross Charolais/Murray Grey
- 1 Consignment Charolais cross Charolais/Shorthorn
- 2 Consignments Charolais cross Shorthorn
- 1 Consignment Charolais cross Hereford
- 2 Consignments Maine Anjou cross Shorthorn
- 1 Consignment Maine Anjou cross Angus/Shorthorn
- 1 Consignment Gelbvieh cross Santa Gertrudis/ Hereford
- 1 Consignment of composite bred cattle (European, Bos Indicus and Bos Taurus cross).

Caroona Other Breeds and Crosses

- 2 Consignments Angus cross Shorthorn

- 1 Consignment Braford
- 1 Consignment Brahman cross Hereford
- 1 Consignment Brahman cross Unknown
- 2 Consignments Devon
- 4 Consignments Hereford cross Shorthorn
- 1 Consignment Hereford cross **Simmental/ Hereford**
- 2 Consignments Shorthorn cross Hereford
- 1 Consignment Red Angus cross Santa Gertrudis