

# CRCII Southern Regional Combinations Project - Variations in Genetics and Growth Paths

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Another major project for CRC II, is a study of 'best bet' Regional combinations of genotype and nutrition. There are three sites in southern Australia, Wageningen in WA, Hamilton Victoria and Griffith, NSW (two Qld sites had to be stopped due to drought). They are each testing nutritional options relevant to their region, allowing lines of steers of different genetic potential (for carcass type) to be grown at different rates, and finished for various markets.

Angus High Yield % EBVs (Ay)  
Angus High IMF % EBVs (Am)  
Angus High Yield % and IMF % EBVs (Aym)  
Wagyu Black (Wb) and Wagyu Red (Wr)  
Charolais (C) and Limousin (L)

After weaning, the steer progeny either follow High or Low growth paths, to reach (average) 400 kg feedlot entry weight at either 13 or 19 months of age. This split calving allows the Low growth group from

calving. The first feedlot group has just (June) been slaughtered and the third group will soon be put on feed. There is a similar experiment at Hamilton in Western Victoria. This year two of the Victorian grass finished slaughter groups were trucked to Wagga for processing at the same time, further strengthening links across projects.

The table below shows some raw averages for the breed groups

Table 1. Raw averages for breed groups from Bringagee

Sire breed over Hereford	Ay	Am	Aym	C	L	Wb	Wr
Gestation Length (days)	283	282	282	286	287	285	285
BWT (Kg)	36	36	35	39	38	33	35
Muscle Sc (1-15)	7.5	7	7.5	10.5	9.5	6.5	7.5
Rump fat (mm)	2.5	3	2.5	2	2	2.5	2.5
Feedlot Entry Av Wt (kg)	390	414	399	423	408	383	381
Feedlot Entry Range (kg)	303-472	340-462	293-507	340-495	352-461	302-454	299-438

The NSW site is on "Bringagee" station (AgReserves Aust), near Griffith. It is supervised by NSW Agriculture researchers John Wilkins, John Irwin and Bill McKiernan.

Groups of 500-700 Hereford cows are involved at each of 5 matings for Spring and Autumn calving groups. These are being joined by AI to five carcass types in the sires, each represented by eight sires (40 total):-

one calving to join the High group from the following calving to come together for finishing and slaughter (at Cargill's "Jindalee" feedlot near Temora and their Wagga works). This is essential for valid comparison of performance and carcass quality between groups. Feedlot finishing is at Cargill's

In spring 2002 they completed the last of 5 matings and the fourth

from "Bringagee". This has not had final adjustments and is provided here to show some trends and the ranges of feedlot entry cattle produced - even after a 6 to 12 week calving!



Figure 1. Steers after 100 days at "Jindalee" Feedlot.



Figure 2. Flight time was also measured, with considerable variation between breeds and sires within breed.