COMPARISON OF GROWTH RATES OF RELOCATED AND LOCAL STEERS

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Beef producers have expressed concern that cattle moved from one location to another do not always perform as well as comparable local cattle. Research station records and field trial data were examined to determine the effect of relocation on growth rate using data sets for animals of different age and liveweight at relocation and of different genotypes. In most cases, the average daily gains (ADG) compared were for the period between the first and second weighing; it was assumed that any effect of relocation would occur during the initial 3–9 months after transfer. The ADG of steers compared were adjusted for differences in initial liveweight using covariance analysis where necessary.

Table 1. Average daily gains (ADG) and standard deviation (SD) for steers relocated to a new environment and local steers (in italics)

Data set	*Property destination* Property of origin	n[A], genotype and age	Date 1st weighed	Initial weight	Days[B]	ADG[C] (kg/day)	SD
1	*Blackwater*	*50, BrahmanX 1 year*	*19Jul90*	273	*82*	*0.34[a]*	*0.10*
	Swans Lagoon RS	22, BrahmanX 1 year	21Aug90	175	51	0.65[b]	0.12
2	*Brigalow RS*	*20, Belmont Red 30 months*	*26Jul89*	*585*	*63*	*0.04[a]*	*0.18*
	Calliope	106, BrahmanX 30 months	5Jul89	423	78	0.34[b]	0.13
3	*Goondiwindi*	*18, Hereford weaners*	*20Oct82*	*252*	*98*	*0.51*	*0.08*
	Brigalow RS	22, Hereford weaners	20Oct82	212	98	0.53	0.09
4	*Brian Pastures RS*	*12, Brahman X 2½ years*	*3Mar93*	*485*	*75*	*0.86[a]*	*0.12*
	Gracemere-1	25, Brahman 2 years	16Feb93	409	90	0.50[b]	0.20
	Miriam Vale	9, Brahman 2½ years	8Feb93	498	94	1.38[c]	0.46
	Gracemere -2	30, Brahman 2 years	16Feb93	373	86	0.39[d]	0.13
5	*Brian Pastures RS*	*12, Brahman 1 year*	*1Jun93*	*221*	*97*	*-0.07[a]*	*0.04*
	Miriam Vale	10, Brahman 1 year	13May93	253	118	0.06[b]	0.09
	Miriam Vale	50, Brahman 1 year	20Jul93	210	50	0.30[c]	0.16
6	*Brigalow RS*	*20, Belmont Red weaners*	*23Jul87*	*230*	*97*	*0.38[a]*	*0.09*
	St Lawrence	32, Droughtmaster weaners	5Aug87	226	84	0.54[b]	0.12
7	*Brigalow RS*	*20, Belmont Red 1 year*	*19Aug87*	*233*	70	*0.49*	*0.11*
	Swans Lagoon RS	20, BrahmanX 18 months	3Sep87	295	69	0.38	0.17

[A] Number of steers measured.
[B] Number of days used to calculate ADG.
[C] ADG followed by a different superscript differ significantly ($P<0.01$).

Relocated cattle grew as fast or faster than local cattle except the Gracemere steers (set 4, Table 1). The Gracemere steers were undersized when purchased and finished quickly. The results should be viewed with caution because it was not possible to have comparable control groups and standardised post transport weighing intervals and procedures. The comparisons between relocated and local animals that involved different genotypes (sets 2,6 and 7) were considered valid because the growth rates of *taurindicus* genotypes generally are similar (Barnett and Mayer 1982; Durand *et al.* 1984).

The results suggest that relocated cattle often do better than local cattle, possibly due to compensatory gain, and support the principle of breeding in the north and then transferring south for finishing to reduce age-of-turnoff of northern cattle.

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