PERFORMANCE OF CATTLE AND BUFFALO GRAZING SORGHUM STUBBLE

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Buffaloes are claimed to be more efficient utilisers of poor quality roughage than cattle (Kennedy and Waterhouse 1987). The studies reported below examined the liveweight gains and carcasses of cattle and buffalo grazing sorghum stubble in the dry season at Douglas Daly Research Farm 160 km south of Darwin.

In 1988, 2 year old buffalo bulls (11) and Brahman steers (9) were randomly assigned to four recently harvested sorghum paddocks at a stocking rate of 1.5 hd/ha. Due to paddock differences another trial was conducted. In 1989, two paddocks *were* each-stocked with six 2 year old buffalo heifers and six 2 year old Brahman heifers, grazing together at 1.4 hd/ha. The animals were rotated between paddocks every three weeks for 18 weeks. A small sprinkler in each paddock allowed the buffalo to wallow and minimise heat stress.

Results of the 1988 trial suggested a higher growth rate for buffalo than cattle. However, the buffalo carcass dressing percentage, using empty live weights was lower (46% v 49%) due to heavier heads and hides (Ford 1982). Also buffalo had less fat cover (3 v 4 mm) and a lower eye muscle area (39 v 52 cm^2). The 1989 trial results are given in Table 1.

Table 1 Liveweight change for cattle and buffalo in 1989

	Cattle	Buffalo	s.e.
Initial fasted live weight (kg)	310a	296a	3.3
Final fasted live weight (kg)	350a	308b	4.4
Overall liveweight gain (kg/hd/d)	0.31a	0.10b	0.02

Means within rows with different letters differ significantly ($P < 0.05$)

Growth rates of both species in 1989 were substantially poorer than in 1988. Over the 18 weeks grazing period cattle gained more ($P<0.05$). Prior familiarity with sorghum grain by the cattle probably caused this, as most of their better weight gain ($P <0.01$) occurred in the first six weeks (25.7 v 10.8 kg/hd full live weights). Cattle were observed actively selecting for the substantial regrowth and late maturing heads, while the buffalo did not. After six weeks the amount of regrowth and heads was negligible and the buffalo were observed to be grazing well. Buffaloes gained more ($P<0.05$) live weight than cattle (9.5 v 2.3 kg/hd full live weights), during the last 12 weeks (Jul-Oct) of grazing, when green pick and grain, and thus nutrient levels, had declined. This may indicate a better conversion of low quality roughage. Carcasses from both species were expected to be trade quality, however most buffalo are currently sold as manufacturing meat in the N.T. The mean comparable carcass prices in the N.T. for 1989 were $2.00 for trade steers and $1.70 for 200 kg buffalo steers. The total liveweight gains in the 1989 trial indicated cattle to be more profitable. However, the growth rates during weeks 7-18 resulted in an estimated gain in carcass value of $7.43 for buffalo and $2.25 for cattle.

Markets are being sought for quality buffalo meat, which should attract higher prices as a specialty meat. With possibly a higher feed conversion efficiency of poor quality roughage, buffalo may prove more profitable. Further work is needed using animals with experience of stubbles and grain, to establish relative performances and profitabilities of grazing crop stubbles.

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