

Prewaning efficiency for mature cows of breed crosses from tropically adapted *Bos indicus* and *Bos taurus* and unadapted *Bos taurus* breeds¹

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Production data were collected on mature cows produced by mating Angus and Hereford (pooled AH), Brahman (Bh) and Boran (Br), and Tuli, a tropically adapted *Bos taurus*, sires by AI or natural service to Angus and Hereford cows. These cows were mated to Charolais bulls for the purpose of this study. Within each sire breed of cow, cows were assigned randomly to one of three feeding rates, 49 or 76 g of DMI/BW^{0.75} or ad libitum (10 to 12 cows/feeding rate group), with weekly individual animal feed consumption recorded. Lactation yields were recorded via the weigh-suckle-weigh protocol at approximately 14, 28, 56, 84, 112, 140, 168, and 196 d postpartum for each cow/calf pair. Means for milk yield at peak lactation, total milk yields, calf birth weight, age-adjusted weaning weights, preweaning daily gain, and feed efficiency were estimated. Peak yield (lb/d) for Bh (22.7 ± 0.79) was greater ($P < 0.05$) than for Tuli (19.8 ± 0.68). Total yield (lb, 212 d) for Bh (3964.4 ± 149.6) was greater ($P < 0.05$) than for Tuli (3370.4 ± 129.8). Birth weight of AH (96.8 ± 1.9) was heavier than for Bh and Br ($P < 0.05$). Prewaning daily calf gain (lb/d) and adjusted weaning weight (lb) of Bh ($1.79 \pm .06$, 466 ± 13.4) and Br ($1.69 \pm .05$, 444 ± 11.2) differed ($P < 0.05$) from AH ($1.30 \pm .05$, 372 ± 11.4) and Tuli ($1.39 \pm .05$, 387 ± 11.7). Efficiency estimates (grams of adjusted weaning weight/kilograms DMI of the cow) for Bh (88 ± 2.5) and Br (85 ± 2.1) exceeded ($P < 0.05$) those for Tuli (74 ± 2.1) and AH (73 ± 2.1). *Bos indicus* breed crosses exhibited greater peak and total yield, lower birth weight, greater daily gain and adjusted weaning weight, and higher feed efficiency than did *Bos taurus* breed crosses ($P < 0.05$). Total yield, daily gain, adjusted weaning weight, and feed efficiency were higher ($P < 0.05$) for cows sired by bulls from tropically adapted breeds, and the peak yield was less ($P < 0.10$). Tuli exhibited lower total yield and birth weight than did Angus/Hereford ($P < 0.05$). The efficiency of crossbred Tuli cows did not differ from Angus/Hereford F₁ females, but neither equaled the efficiency of crossbred cows produced using *Bos indicus* breeds.

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