

*Weaning weights.* — Weaning weight of calves is a measure of production and reflects the genotype of both sire and dam, plus the maternal influence of dam.

The 205-day weaning weight is a measure of growth rate, while weaning weight reflects a combination of growth rate and age at weaning. Since the two factors were similar in this study, only weaning weight will be discussed.

Average weaning weights were 404, 399, and 492 pounds, respectively, for the straightbred Angus, Brahman, and Charolais calves. The heavier weaning weight of the Charolais as compared to the Angus and Brahman reflects primarily the large additive effects of the Charolais breed for growth.

Average weaning weights of  $F_1$  B x A and B x C calves were 428 and 464 pounds, respectively. The 428 pound weaning weight of the  $F_1$  B x A calf not only was higher than the average of the parental breeds but was higher than the better of the two breeds. This is a prime example of the level of heterosis derived from crossing the *Bos taurus* and *Bos indicus*, especially when the *Bos taurus* breed used is the Angus. The 464-pound weaning weight of calves from B x C matings expressed heterosis, being 4.0% above the average of the parental breeds, and also reflected the additive breed effects for size in the Charolais.

Average weaning weights of calves produced by  $F_1$  BA cows were 492 pounds and by  $F_1$  BC cows were 504 pounds. The  $F_1$  BA cows produced calves 64 pounds heavier than the  $F_1$  BA calf, expressing maternal heterosis of the dam as well as heterosis in the calf. Weaning weights of calves from BA cows were 90 pounds heavier than the average of the parental breeds, with a combined level (both calf and dam) of 22.5%.

The 504-pound weaning weight of calves produced by BC cows was 58 pounds (13.1%) heavier than the average of the parental breeds and was also 12 pounds heavier than the straightbred Charolais calves.

*Annual production per cow.* — Production per cow is the product of weaning rate and weaning weight. Annual production per cow averages were 271, 326, and 372 pounds, respectively for the Angus, Brahman and Charolais. Net production was lowest for the Angus and highest for the Charolais.

Crossing Brahman bulls on Angus cows resulted in an annual production per cow of 332 pounds, 61 pounds more than the straightbred Angus and six pounds more than the straightbred Brahman. Mating Brahman bulls to Charolais cows resulted in an annual production per cow of 371 pounds, essentially the