Breeding Systems That Maintain Brahman Influence

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Last month this column discussed the F-1 Brahman cross cow and her superiority in producing good, uniform, heavy calves. We also discussed problems with producing F-1 replacement heifers by crossing straightbred Brahman (Bos indicus) with straightbreds of a Bos taurus breed (Angus, Hereford, Charolais, and others). Maintaining a straightbred female herd to produce F-1 replacement heifers is difficult, and the F-1 males produced are heavily discounted as feeder calves.

An alternative for maintaining Brahman influence is a two-breed rotational cross or crisscross breeding system. This system starts with F-1 cows which are first bred to a Bos taurus bull, producing a ¼ Brahman calf. The ¼ Brahman replacement heifers are bred to straightbred Brahman bulls. This produces Brahman calves, with replacement heifers bred to a Bos taurus bull. Rotation between the two breeds of bulls continues indefinitely, producing calves that are about 2/3 Brahman when sired by a Brahman bull and 1/3 Brahman when sired by a Bos taurus bull.

The two-breed rotational cross system is extensively used by Florida commercial beef producers, primarily crossing Brahman with Angus or Herefords. Dr. Joe Crockett showed that this system produces cattle with a high degree of hybrid vigor, thus good calf production and cow longevity. A major advantage is that it is self sustaining, producing its own replacement heifers.

A disadvantage of the two-breed rotational cross system is that two cow herds must be maintained, one made up of high-percentage and one of low-percentage Brahman cows. Also, feeder calves showing more than 1/4 brahman breeding are discounted by buyers because these feeder calves tend to have a lower carcass grade, are more difficult to handle, and are not adapted to colder climate feedlot areas. Calves sired by Brahman bulls are about Brahman, and they show a distinct Brahman hump (termed "humpy" cattle) and are heavily discounted when sold as feeders. Calves sired by Bos taurus bulls are about Brahman and they show the Brahman ear (termed "eared" cattle) and are slightly discounted as feeder calves.

In recent years commercial cattlemen have deviated from the crisscross system by breeding low-percentage Brahman cows to a second Bos taurus breed rather than to Brahman. For example, Angus x Brahman cross cows (Brahman) are bred to either
Hereford or Charolais bulls. Excellent calves are produced which contain less than 1/4 brahman (show a little Brahman "ear") and are not discounted by feeder calf buyers. With the good prices now being paid for feeder calves this is a wise management decision. However, the females produced do not contain enough Brahman to make good replacements in the south Florida climate. To regain hybrid vigor and adaptability, these commercial operations will have to introduce Brahman blood back into the brood cow herd.

Another production system that maintains Brahman breeding is the use of American or Brahman derivative breeds. They include Brangus, Braford, Beefmaster, Santa Gertrudis, Simbra, Charbray, and others. These breeds are about Brahman and have been selected over many generations for good production and to obtain consistent color and conformation. Although they do not express the degree of hybrid vigor as F-1 or rotational cross cows, they do produce good quality, uniform calves. A major advantage of using a Brahman derivative breed is that they are straightbred cattle, thus producing uniform replacement heifers and are maintained as one herd.

We do know that Brahman breeding is essential for commercial cow/calf production in south Florida. There is adequate research information to document the superiority of cattle containing a degree of Brahman breeding over straightbred Bos taurus. It is up to each producer to study breeding practices and select one that best fits his or her cow/calf operation.

For questions or comments regarding this publication contact Findlay Pate