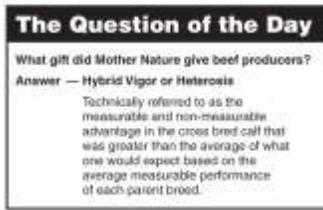


BeefTalk: Nothing New, Just a Reminder That Breeding Systems Work



What gift did Mother Nature give beef producers? Hybrid Vigor or Heterosis

Seedstock producers have improved their genetics through selection to leave the impression that increased production attained through selection outweighs any advantages attained through heterosis or the crossing of unrelated breeds.

Once the industry decided that the walls would not cave in when Hereford bulls were mated to Angus cows or vice versa, the world of beef cattle systems was created.

In the beginning, life was simple because all a producer needed to do was take an established herd of purebred or straight-bred cows and put a different breed of bull with the cows. Given that, the world of crossbreeding started to emerge.

As a point of significance, for many producers, such crossings were considered improper in those days, and one perhaps could even use the word sacrilegious. For younger producers, those concepts seem foreign because beef cattle genetics is a much broader pool of genes sourced from many distinct breeds of cattle.

So why bring up the past? It is a reminder of what followed those initial crossings because each breed had been meticulously tracked and the parentage documentation exhaustive. Some extraordinary results even were becoming visible to the naked eye.

These so-called crossbred calves excelled in growth. They were very vigorous from birth through death. They withstood the stresses of the environment better and were all around better calves, so producers loved it.

A term called heterosis (hybrid vigor) was put forth. It is a term that technically refers to the measurable and nonmeasurable advantage in the calf that was greater than the average of what one would expect based on the average measurable performance of each parent breed.

If a producer ever received a gift from Mother Nature, this was it. This was the beginning of crossbreeding in commercial cattle production. Commercial production systems soon were developed to explore and document the advantages of crossbreeding, and more refined breeding systems were established.

The classic black baldy was produced and named. The Hereford- and Angus-crossed calves excelled. When the females were kept as replacements, these crossbred cows had improved fertility and successful pregnancies. This was good. However, as with so many people, being good is never good enough.

If the traditional English-bred cattle would respond to crossbreeding, why not search the world and bring in more breeds? Producers did just that. They brought in new breeds that were distinctly different from the traditional breeds.

Again, the classic black baldy cows were bred to imported Charolais cattle. Calf growth mushroomed after that. These “terminal” calves excelled in red meat production and feedlot performance. These classic crossbreeding programs were well-documented and the advantages were real. The premise of a good crossbreeding program was to keep the production unit (cow) smaller and refine the costs to make the cow practical. The terminal sire advantage is that all the pluses achieved through heterosis would be maintained, plus the cow would have the unique traits associated with the selected breed. This was good.

The beef cattle breeding systems were expanded to handle even more breeds. Programs either maximized production through terminal sires or more sophisticated rotational breeding programs that allowed for the inclusion of new breeds on the maternal side as well. This meant that the world of beef production was not limited to black baldy cows.

The issue is not the validation of the benefits of crossbreeding in today’s cattle, but rather the dismissal of crossbreeding systems. The reason is improvement in individual breeds. Seedstock producers have improved their genetics through selection to leave the impression that increased production attained through selection outweighs any advantages attained through heterosis or the crossing of unrelated breeds.

So what is the point? In the genetic world, remember that measurable and nonmeasurable advantages are evident as diverse genetics are crossed. That is simply a fact. More importantly, the concept of crossbreeding systems was placed on the back shelf. As a result, the tool chest shrunk. As producers explore new ways to address beef systems in the current world, a large tool chest is needed.

As producers look to downsize cows, those early black baldy concepts are real. A small cow is not efficient if she only has the capacity to wean a small calf. Real efficiency comes when the small cow produces a calf that exceeds her own capacity to grow. This means terminal sires. In addition, it means crossbreeding systems are needed.

It is nothing new, just a reminder.

May you find all your ear tags.