



THE PERFORMANCE LINK

by JOHN CROUCH, *director of performance programs, American Angus Association*

Single traiting

More and more these days I'm hearing breeders criticize other breeders specifically, and the beef industry in general, for practicing what they call single-trait selection. By this I mean placing all of the emphasis on one production trait, such as weaning weight, marbling or milk, and forgetting about all other traits. I think this is the exception rather than the rule; but should this happen, we could once again be headed for big trouble.

Beef cattle and sheep are unique in production agriculture. They, in effect, are scavengers that run for the most part on land that is unsuitable for the production of cereal grain and fiber. It is great we have cattle and sheep; otherwise, this marginal land could not be used for the production of protein for human consumption.

Adaptable

Ruminants are developed under natural conditions. The environment surrounding them cannot be controlled. Therefore, beef cattle and sheep must be selected on the basis of environmental adaptability.

For as far back as I can remember, profitable beef operations have selected for

production traits in the following order:

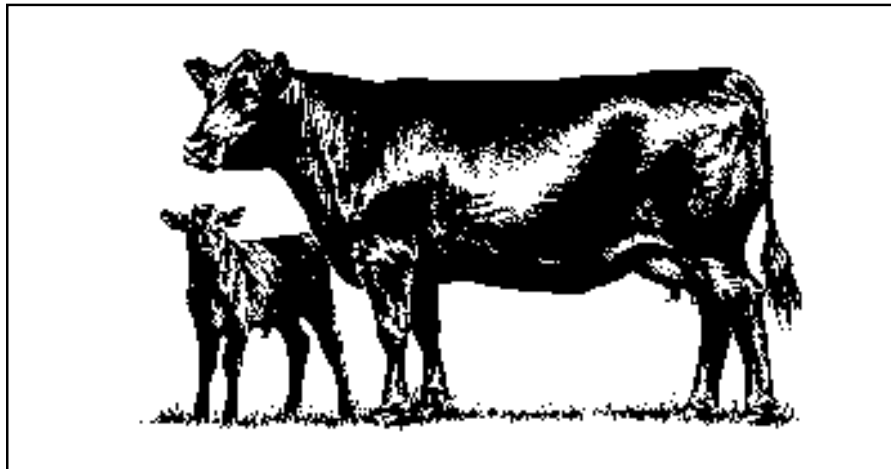
1. Reproduction;
2. Early growth to harvest;
3. Maternal and mothering ability; and
4. End product merit.

In the past 10 years emphasis has swung from selection for growth and milk to selection for carcass merit, especially marbling. Finally, we are paying attention to what consumers really want. We have, in effect, moved from being in the cattle business to being in the food-production business, and for this shift I am eternally grateful.

Extreme hazards

By the same token we need to remember our history. During the past 50 years we went to extremes in the selection process and in so doing created problems with which commercial cattlemen could not contend. In building for the future we must never forget Mother Nature has a cruel way of dealing with extremes.

Fertility and reproduction are the most important production traits with which we deal. Reproduction is difficult to measure; hence, heritability estimates are low. So what do we do?



Eliminate problems

Simply put, we first confine our breeding season and eliminate females not with calf. Further, we eliminate females that do not wean calves. From that population we then select animals that have superior growth to harvest. This scheme places equal emphasis on reproduction and growth in a given environment; hence, extremes from the herd are eliminated. Proper selection will provide us with a population of cattle synchronized

with the environment relative to size and productivity.

Directional changes then can be made by sire selection with added emphasis on improving carcass traits, remembering that reproduction will be the final governor of performance levels in most other traits.

