

## Cow Stayability

Beef cow stability is an EPD (Expected Progeny Difference) index of the probability of a bull's daughter to enter the breeding herd and remain productive at least until 6 years of age. Most breed EPD booklets do not have this index yet because it requires breeder and breed associations to track the outcome of every female in the herd. This requires both more recordkeeping detail and more breed registration fees. Currently Red Angus is the only association to offer the EPD information.

Cows fail to remain in the herd for a number of reasons including failure to rebreed, loss of a calf, health and growth of the calves, udder/teat, feet, temperament, teeth, and body condition. The number of heifers saved back for replacements, and the number of heifers that calve and stay in the herd for an extended period is directly related to beef cow/calf operations profitability.

A detailed study on two well managed herds showed 78% of replacement heifers who successfully calved the first time rebred and had their second calf. Only 38% of these had their fifth calf, 20% their eighth calf and 10% their eleventh calf. The breakeven point for moderately priced replacement heifer calves, say \$600, would be in the range of four to seven calves. You can see that small differences, small improvements in management, can be very significant in terms of profitability.

Looking at the long term trends in EPD's for the Red Angus breed, stayability has increased markedly since the mid-1980's while calving ease, birth weight, and heifer pregnancy rate have remained fairly constant. This is more likely because of selection factors affecting stayability rather than a focus on stayability in breeding programs. The heritability of stayability is just .1 versus .47 for birth weight and .23 and .22 for weaning weight and yearling weight. There have been very significant increases in the EPD's for yearling weight, weaning weight, milk, and maintenance energy. This is both good and bad. It's great when cattle grow faster and we have more pounds to sell. It's bad when we suddenly have a cow herd which requires more energy and inputs than our farm or ranch resources can supply.

This just points out in a different way that we need to pay close attention to the maternal traits of our beef cow herd. The replacement heifers which we select or purchase need to fit the resources of feed and management of the individual operation. This also has to be in balance, in alignment with, perhaps soon in contractual agreement with our market and customer.

Stayability and cow productively is an important factor in beef cow calf operation profitability. While heritability is low it can be advanced almost to rapidly by other selection criteria. These advances can pose problems in balancing the resources and input costs for the operation. Selecting replacement heifers from older cows in the herd can improve stayability while keeping maternal traits in line. This may slow down the speed of progress in yearling weight and weaning weight.

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