

This week we will continue last week's discussion and talk about cattle that do not fit their environment. The word "optimum" is defined by Webster as "the greatest degree or best result obtained or obtainable under specific conditions". By applying this definition to cattle operations, we see that producing cattle that fit their environment is not solely about producing the cheapest calf. Nor does it only involve producing the biggest calf. Raising cattle that fit their environment optimally is displayed by producing the biggest *and* cheapest calf in the environment they are in.

The first step to take is to make the determination of whether or not your cattle fit their environment. Does the cow raise a calf that is 55% of her weight, maintain body condition (BCS 5), and breed back in time to calve the same time next year? If your herd is not accomplishing this, adjustments should be made.

Three major factors play into whether a cow's nutritional requirements are being met; they are: the body size of the cow, her stage of lactation, and the quality of the forage she is consuming. As body weight of the cow increases, her requirements also increase. Lactation has the same effect. Studies show that as soon as she calves, a cow's protein requirements increase 1.5 times. Additionally, the cow's nutrient requirements are the highest at the time of rebreeding when she has a calf at side. The last factor, forage quality, is greatly dependent upon weather and the cost of quality improving products such as fertilizer. In order to produce the best results, these three factors should work well and complement one another. If only low quality forage is available, a producer would be better off changing the herd make up from large, heavy muscled cattle to smaller framed, lighter muscled cattle.

It is important to keep the size of cow, her amount of milk production, the size of her calf at weaning, and the quality of forage consumed in the forefront of your mind when determining which cows are most productive. If only one of these areas is selected for, others may lack, resulting in problems. When a cow's nutrient requirements are not met reproduction usually takes the first and hardest hit. For example, Simmentals were widely used in past years because cows this breed were known for increased milk production and weaning big calves. For this reason, many producers integrated Simmentals into their herd. However, many soon discovered that a large number of their cows were not breeding back. Because the cows were so big and had increased reproduction maintenance requirements, the quality of the forage was not enough to meet their needs. This is just one reason that more than one trait should be closely studied when selecting cattle for your herd. When choosing cattle and looking at EPD's, beware of only selecting the cattle with high milk EPD's, or high weaning weight EPD's. Although an initial improvement in these areas may be observed, if the available forage does not meet the cow's requirements, she will lack in productivity. Thus, rather than primarily select for a certain EPD, it is best to choose cattle with EPD's that complement the cattle themselves, and the environment they are in.

The primary goal of a cattle operation should not always be to simply "wean big calves". The key to having a profitable and productive cattle operation is to raise cattle that fit their environment. Because each herd, operation, and environment varies, each producer should look at his/her operation and ask themselves "Does my cow herd fit my ranch's environment and does my quality forage cycle coincide with the herd's reproductive cycle?". For more information about producing cattle that fit their environment, please contact us.