The idea of "herd expansion" has been on the forefront of many producers' minds the past several weeks. However, herd expansion should be taken seriously and should be carefully thought out before a producer decides to undertake such a task. As we have been discussing lately, it is important to first determine if your operation can productively and efficiently support herd expansion. The next step a producer should take is to develop a thorough health program for the replacement females. Once that has been done, a nutritional program should be established for the females. This week we will discuss the importance of a good nutritional program and how it directly affects the productivity of an operation.

A popular rule of thumb that many producers aim for is for their replacement heifers to weigh 65% of their mature weight by the start of breeding season, and 85% of their mature weight by the time they have their first calf. The mature weight of the females may be estimated using sale barn receipts of cows that have been previously culled from the herd. If your cull cows typically weigh about 1300 pounds when they are sold at the sale barn, you can expect that the replacement females should also have mature weights of about 1300 pounds. This means that the females should ideally weigh approximately 845 pounds at the beginning of the breeding season, and 1105 pounds by the time she has her first calf. Please keep in mind that external parasites, such as horn flies, are notorious for causing weight loss in cattle. Proper care should be taken to prevent parasites in your herd.

Of course, age is also an important factor to consider as it can directly impact the size of the female. Many producers find that the best time for a female to have her first calf is when she is two years old. In order for this to happen the female must be fifteen months old at breeding. This type of management has proven itself to be successful and productively efficient, as most females this age are more developed and will likely be better able to raise a calf compared to females bred younger than fifteen months of age. However, keep in mind that not all females develop and mature at the same rate. Although your females may be reproductively mature before they reach fifteen months, it is best to wait to breed them until they reach the fifteen month mark. This improves the female's likelihood of being reproductively mature, and physically capable of successfully conceiving, maintaining pregnancy, and eventually calving.

We have often stated that one cannot accurately manage what is not measured. If a producer is attempting to manage the nutritional aspect of his operation he must first measure what is available. In order for the female to gain weight and reach her mature weight in a timely manner, it is critical that her nutritional requirements be met. Producers should have a clear understanding of the nutrient content of the feed and/or forage that is available for the females. Further, he should be able to use that information to determine what steps to take if her requirements are not being met. It is wise to test the forage that the females are predominantly grazing. This will reveal the nutrient content of the forage, which can help you determine if supplemental feeding should take place in order to meet the females' nutrient requirements. For example, a producer may plan to have his replacement heifers grazing Bermuda grass pasture all summer, but when he tests the forage he finds that the pasture is not high enough quality to sustain the heifers' requirements. After calculating the heifer requirements and their estimated intake of Bermuda grass, the producer finds that the heifers need half of a pound more of

protein in their diet to meet their requirements. He then calculates that this can be achieved by supplementing the cattle's diet with 2.5 pounds of a 20% protein ration per female per day.

Although proper nutrition is important for any animal in a cattle operation, it is arguably the most important for replacement females. Reproductive quality and maturity greatly relies on nutrient intake. We strongly encourage you to take the steps necessary to ensure that your replacement females meet their nutrient requirements and gain weight in a timely manner according to their age. If you have any questions about nutrition for replacement females, or if you would like to know how to calculate whether or not their requirements are being met, please contact us.

Thanks, Dr. Jesse Richardson, DVM

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