

**A LITTLE BIT COUNTRY
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Beef Cow Feed Intake Guidelines

How much can a beef cow eat? This is a question addressed with 4-H members and parents as they develop plans for feeding their calf projects. It also is a question of producers.

As a general rule, intake of beef cows is a function of the energy content in the diet with intake increasing as the energy density increases. This does not always hold true with very high energy diets. For example, with a feedlot diet dry matter intake will be lower than on a very high quality forage diet even though the energy density is higher in the feedlot diet.

There are several factors which influence feed intake in beef cows. These include weight of the animal, energy content of the diet, body condition, lactation, temperature, lot conditions, protein level in the diet and breed.

Feed intake increases in direct proportion to body weight. However, this does not mean a 1600 pound cow will not eat twice as much as an 800 pound cow. Larger cows will require approximately 7 percent more feed per 100 pounds of additional body weight.

Thin cows offered a good quality diet will consume more than cows in good condition on the same diet. Also, as cows become relatively fat, they reduce intake to some extent.

Lactation puts a big demand on the cow and her intake needs to increase in direct proportion to the level of milk production. For her to maintain body condition, she needs to increase intake by 0.25 pound for each pound of milk produced.

The protein level in the diet also impacts intake. A deficiency of protein will reduce feed intake because the shortage of protein reduces the microbe's ability to digest the diet and passage of feed slows.

Lot conditions are known to influence intake. When cattle are forced to walk through mud to get to feed or water, they tend to reduce intake by 15 – 30 percent.

Almost all feed recommendations are based on dry matter. With the exception of mineral supplements, all feedstuffs utilized in beef cow diets will contain some water. Because feedstuffs vary in water content, rations should be calculated on a 100 percent dry matter. However, regardless of the moisture content, cattle tend to consume feed until they reach a certain level of dry matter.

The beef cattle science arena has established some general guidelines for dry matter intake as a percentage of body weight. Lactating cows fed a high quality forage ration with or without energy supplementation can be expected to consume approximately 2.7 percent dry matter of their body weight daily. On the other side of the pendulum, dry cows being fed low quality forage with no protein supplementation might consume only 1.5 percent of their body weight as dry matter. In the middle of these is a diet consisting entirely of average quality forage yielding daily dry matter intake to 2.3 percent of body weight.

Examples of low quality forage would include dry, dormant winter range, crop residue in the winter and very low quality CRP hays. Average quality forages would include good grass hay. Examples of high quality forages would include alfalfa hay and corn silage.

From a practical standpoint, an additional factor to consider with respect to intake is wastage. Depending on the feeding system, the amount of waste might be as low as 5 percent and as high as 30 percent.