

Cattle Producer's Handbook

Nutritional Management of the Mature Beef Cow

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Productivity and profitability of cow-calf operations depends, in part, on how well their nutritional management plans meet the nutritional needs of the cowherd. In addition, research has suggested that nutrition during late gestation influences the performance and profitability of the subsequent offspring. This article provides an overview of beef cow nutrition as well as some considerations for developing a cowherd nutritional management plan.

Specific information concerning cow nutritional requirements can be found in 300, "Nutrient Requirements of Beef Cattle." For mature cows, nutrient requirements are listed for three physiological stages:

1. Dry pregnant mature cows in the middle third of gestation;
2. Dry pregnant mature cows in the last third of gestation; and
3. Cows nursing calves during the first 3 to 4 months postpartum.

Consequently, we will describe the nutritional management of mature beef cows as it relates to these stages. In addition, more information on nutrition can be found in 327, "Mineral Supplementation of Beef Cows in the Western United States," which provides mineral requirements and supplementation strategies, and 313, "Beef Cattle Nutrition: Feeding the Cow and the Rumen," which presents some of the most current

information used in determining cow nutrient requirements.

The example animal that will be used throughout this article is a 1,200-pound, 5-year old Angus cow that becomes pregnant 90 days after calving. Table 1 has her annual requirements for metabolizable protein (see 313, "Beef Cattle Nutrition: Feeding the Cow and the Rumen" for more on metabolizable protein), calcium (Ca), and phosphorus (P), while Fig. 1 charts her annual requirements for energy (NRC 2000).

Dry Pregnant Mature Cows (middle third of gestation)

When a cow is dry and in the middle third of gestation, her nutrient requirements are at the lowest point of her production cycle (months 7 through 9 after

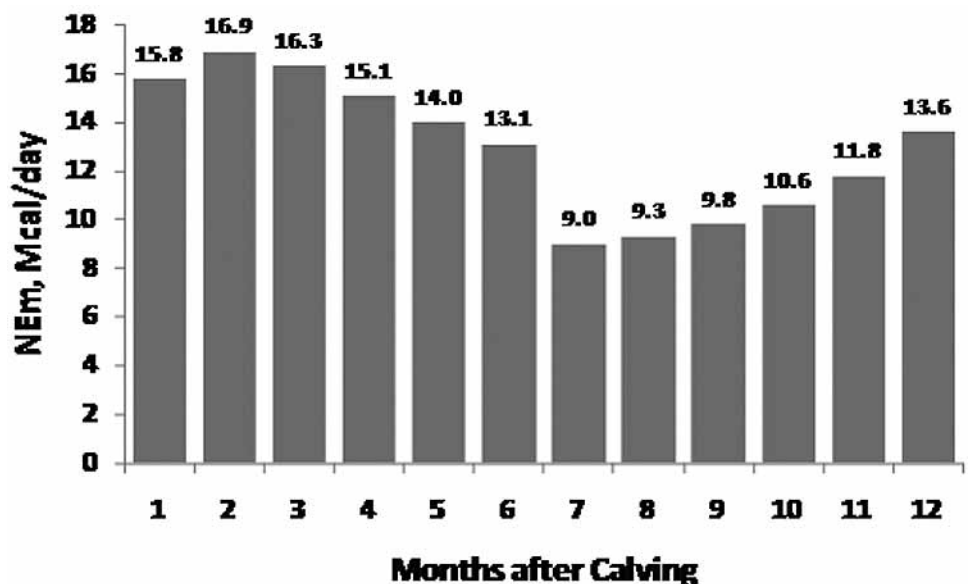


Fig. 1. Net energy for maintenance (NEM) of a 1,200-pound, 5-year old Angus cow becoming pregnant 90 days after calving (NRC 2000).