

Ruminants can make nutritional use of a wide array of products, see local extension professionals and nutritionists to evaluate how novel feeds can be worked into feeding systems.

5. Critically evaluate “cure-alls”

There is no shortage of convenient, commercially available energy and protein supplements, minerals, and nutraceuticals aimed at meeting the nutritional need of the cow herd. All of these products have their place, but be sure the supplement meets a true deficiency in the current diet before adding it. These products should not be viewed as management replacers, rather they are management enhancers for which you are paying a premium for the added convenience. Critically analyze all aspects of the nutrition program to ensure sound management practices before utilizing these products to enhance the operation's outcomes.

6. Utilize a ration balancing program

Ration balancing programs such as [Iowa State University's BRaNDS](#) are a tremendous resource. These programs allow producers to quickly adapt to changes in forage quality, supplement resources, weather, and stages of production to ensure least-cost feeding strategies. The initial cost of software typically is offset in feed savings within the first handful of rations that are balanced.

7. Split cattle into age/size appropriate groups

Separating cows based on their nutrient needs provides for targeted feeding strategies, minimizes dominant/subordinate relationships at the bunk, and reduces overall feed costs of the herd. Young, growing females need more total dietary energy and protein, but cannot ingest as much dry matter as mature cows. When multiple age groups are commingled, young cows do not consume enough to meet their needs while older cows often overeat. This either drives up the cost of feed for the entire herd in an attempt to meet requirements of young cattle, or results in thin young cows and

overweight older cows. Thus, managing them as separate groups will optimize performance of yearling and first-calf females. In larger herds, there also is value in splitting mature cows into two or more groups to better meet the nutrient demands of aging cows that may not be as thrifty as those in their prime.

8. Minimize waste

Harvested forages represent the largest single feed cost in most Midwestern operations. Storage and feeding methods dramatically impact the amount of storage loss and waste at the feeder, and together storage and feeding losses often exceed 30 percent in many herds.

Consider adding a hay shed for reduced waste and potential to store hay for several years. Even at a significant initial cost, a shed typically will pay for itself long before it is fully depreciated and lower expenses will help buffer high priced forages in a drought situation. Storage waste also can be reduced by storing hay under cover and off the ground.

Another option is to grind forages and incorporate them into a total mixed ration (TMR) to reduce sorting and waste at the feeder. However, the initial cost of equipment and infrastructure for TMR delivery may be prohibitive in small- to medium-sized operations. Research has shown that cows can consume their dry matter requirements in as little as 6 hours per day depending on forage quality, reducing the amount of sorting and waste at the feeder. Smaller operations could reduce bale feeder access through the use of electric fence or installation of a low-cost feeding pad that can be gated off.

9. Identify efficient cattle through genetics

Increased feed efficiency will always be a major point of emphasis for cattle operations. In recent years, development of individual feeding system technology has allowed some producers and many breed associations to collect intake data and identify more efficient cattle. Current research

is directed at identification of genes that control intake and efficiency. This information could be used to incorporate more efficient genetics into a herd to reduce intake and feed costs without sacrificing production and marketing goals.

10. Improve record keeping to reduce inputs

Producers cannot improve what they do not measure. Without extensive feed and production records it is nearly impossible to determine whether an operation is reducing feed waste, improving pasture productivity, or reducing

feed cost, and how such changes are affecting performance. Purchased feed costs are well tracked in most operations. However, farm-raised feeds, as well as feed-related fixed and operating costs, both of which dramatically impact feed costs are typically not well defined, giving many producers a false sense of feed costs for the herd. In many small- to medium-sized operations, purchasing forages may be a more economically sensible option as forage related fixed and operating costs are not spread over enough production units to merit ownership of equipment.

. . . and justice for all

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Many materials can be made available in alternative formats for ADA clients. To file a complaint of discrimination, write USDA, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964.

Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Cathann A. Kress, director, Cooperative Extension Service, Iowa State University of Science and Technology, Ames, Iowa.
