Fundamentals of Supplement Selection

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Supplementation of beef cattle is needed when forage quality is low or the nutrient requirements exceed the nutrient density of the forage. Producers need to select the supplement that best meets the animals needs.

Since many supplement options exist, it is critical that each potential supplement is correctly evaluated. Below are some guidelines for selecting the appropriate supplement for your cattle.

●Base Supplement Need on a Forage Test

Test available forages to determine what deficiencies may exist in the available forage. Forage testing, coupled with formulation of a balanced ration based on the test results, will assist in determining the supplement need. Ask your feed dealer or Extension agent how to get this done.

●Protein, Energy or Both?

Depending on the base forage and the nutrient requirements of the cattle, an energy or protein supplement may be needed or a balanced combination. One supplement does not fit all situations. This is why a forage test is critical to appropriate supplementation.

● Compare Cost of Nutrients

Many factors affect cost. After deciding which nutrients (protein, energy or both) are needed, feed the supplement that delivers those nutrients most economically. It is less generally less expensive to purchase feeds in bulk, but transportation and storage are a problem for many producers. Supplements prepared to improve convenience such as blocks, tubs, cubes or tanks are often more expensive, but may be preferred because of time and/or labor savings.

●**Protein Enhances Forage Intake**.

Cattle consuming forages that are low in protein (below 7 to 8 percent) will increase forage consumption and use if supplemental protein is included in the ration.

●**High-Starch Energy Supplements May Suppress Forage Consumption**

Corn, barley and oats are relatively high in starch, which may decrease cellulose digestion in the rumen, resulting in lowered forage consumption. This has led many cattle producers to select alternative energy sources that are lower in starch such as commercial blends, soy hulls or whole cottonseed.

●**Processing**

Pelleting often improves shelf life, palatability and decreases dust, but pelleting occasionally damages nutrients and can hide substandard ingredients. Grinding, rolling, crimping, flaking, etc., are methods for enhancing feed use. In some cases, these processing steps are extremely beneficial. In some situations it may not be economical to process the feed. For example: Feeding whole shelled corn may be more economical than feeding it processed.

Selecting the right supplement is necessary if animals are to perform at the desired level. Additional information on supplement selection and other topics on beef cattle nutrition can be obtained by contacting your local Extension office.