



CATTLE SENSE

Information that makes sense helping you make cents

No. 93 July 2008

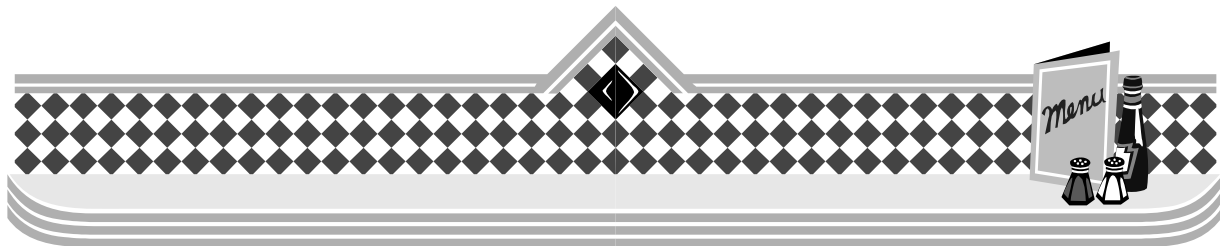
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// A Full Menu of Choices

Like most of America, I find myself eating out far more often than I used to. But I still think of it as a treat, and usually give menu items some serious consideration before making a choice. Sure, I could probably order anything and meet my basic need for food. But many of us have specific issues in mind when determining what to eat: calories, cholesterol, sodium, carbs, or maybe a need to avoid something we're allergic to. Even more important -- at least to me! -- are the added values of good taste, satisfaction, and presentation.

When a beef producer looks at the growing list of additives that can be selected for inclusion in animal diets, it's really the same story. Choices hinge on meeting basic needs, addressing specific problems or issues, or adding value.



Meeting Nutritional Needs

Selections to balance basic nutritional needs, using specific or highly available sources.

**Organic trace minerals
Elevated vitamin inclusion**

Addressing Problems

Opportunities to select additives that offer solutions to specific problems or issues.

**Feed-through fly control
Toxin binders and adsorbents
Antibiotics**

Adding Value

Tools to enhance intake, efficiency, immune status, and animal performance.

**Ionophores
Yeast and yeast extracts
Yucca extract
Enzymes**

**Essential Oils
Prebiotics
Probiotics
Specific fats or fatty acids**

How to choose? If someone fed every item on the “menu,” and the cattle reacted to each one at the high end of observed responses, and all these responses added one onto the others, they would have cattle that practically grew on air. Of course, it doesn’t work that way. If a problem, such as horn flies, has not reached an economic threshold, or if a herd’s calving percent is already 98%, no additive is going to supply a cost-effective improvement in those areas. And if two additives have similar modes of action, we can’t expect double impact from feeding both.

Effective use of additives is based on targeting areas where there is significant room or need for improvement or added value. Use products backed by research and experience that are applicable to your own situation. Only combine additives that complement each other. And as with any input, make sure that the expected returns (more pounds of calf, more valuable calves, greater efficiency) are greater than the cost of providing the additive(s).

Delivery of feed additives can offer challenges, especially for grazing cattle, or those being fed only bulk harvested forages (big bales). Free-choice protein and mineral supplements may serve as practical carriers in these situations. Liquid feeds, in particular, offer unique opportunities for supplying small quantities of an additive where daily hand feeding is impractical or cost-prohibitive. Considerations include:

- **Convenience.** With the additive or trace nutrient formulated into the feed at the manufacturing plant, there is no need to inventory, measure, or mix on-farm. Animals receive the product with no additional time or labor invested in feeding it.
- **Accuracy.** Many of these additives are designed to be fed at extremely low levels. These intake targets are best met when the product is properly diluted into a larger volume of supplement -- and remains evenly dispersed within that feed until it is consumed. Liquid feeds can eliminate concerns over separation of dry ingredients of varying size and density that would be typical of dry protein or mineral mixes.
- **Consistency.** Research suggests that animals display less between-individual and between-day variation in intake of lick tank product than other free choice options (ie, tubs, loose minerals).
- **Complementarity.** Concerns may include chemical reactivity, particle separation potential, and viability of live organisms (i.e., yeast or microbial probiotics).

Development and evaluation of new additives, nutraceuticals and trace ingredients is proceeding at a rapid pace. Designed to address a specific need, improve efficiency, or enhance performance, at least some of these products are going to become valuable tools to improve profitability in the beef industry. But in order to benefit, producers need to stay informed on what is available, learn what the science says about the values that each does or does not deliver, and target use to situations where a positive return on investment can be reasonably assured.