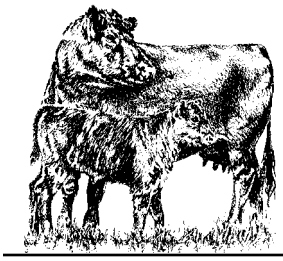

Western Beef Resource Committee *Fourth Edition*

Cattle Producer's Handbook

Nutrition Section 306

Reading a Feed Label

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Livestock feed labels provide a guaranteed analysis of the product described. If the feed is MEDICATED a certain set of regulations apply. Non-medicated feeds must also conform to a certain set of standards. The following example is used to describe the different parts of the label.

Medicated Feed Label

Medicated feed label requirements will be addressed first.

The feed label shown has its parts numbered for ease in explanation.

1. If the product contains any feed additive such as an antibiotic, growth promotant, or dewormer the term MEDICATED must be included immediately after the name of the product.
2. This part is for a statement describing the animal for which the feed is designed and the effect of the medication. In this example the product is for beef cattle on pasture, and the purpose is to increase rate of gain.

BEEF BUDDY WITH BOVATEC

1. MEDICATED.
2. FOR BEEF CATTLE ON PASTURE. FOR INCREASED RATE OF WEIGHT GAIN.
3. LASALOCID.....60 GRAMS/TON
7. GUARANTEED ANALYSIS

a. Crude protein, minimum	14%
b. Equivalent protein from NPN, Maximum	3%
c. Crude fat, minimum	1.5%
d. Crude fiber, maximum	14%
e. Calcium, maximum	2%
Calcium, minimum	1%
Salt, maximum	2%
Salt, minimum	1%
f. Phosphorus, minimum	1%
g. Vitamin A, minimum I.U./lb	25,000
h. Selenium, minimum ppm	0.99
Zinc, minimum ppm	500
Copper, minimum ppm	150

i. INGREDIENTS
Processed grain by-products, plant protein products, grain products, forage products, molasses, dicalcium phosphate, calcium carbonate, salt, urea, magnesium oxide, zinc oxide, manganous oxide, copper sulfate, calcium iodate, cobalt carbonate, sodium selenite, Vitamin A supplement, artificial flavors, ethoxyquin (a preservative).

j. NET WEIGHT 50 LB (22.6 kg)

4. FEEDING DIRECTIONS: Beef Buddy Medicated is designed as a supplement for cattle on pasture or range. Feed continuously at a rate of 2 to 6.67 pounds daily to provide 60 to 200 milligrams of Lasalocid.
5. CAUTION: The safety of lasalocid in unapproved species has not been established. Do not allow horses or other equines access to lasalocid as ingestion may be fatal.

Unlimited roughage in the form of hay or pasture, and fresh, clean water should be provided at all times.

Manufactured by: My Feed Company, Box 000, Rural, Oregon 97000.

3. This part has the chemical name of the drug and the amount present. This example product contains Lasalocid at 60 grams/ton. The concentration of the medication dictates the amount that should be fed.
4. Feeding directions are explained. These are provided so that the livestock receive the proper amount of medication each day. Feeding directions should be closely followed to avoid any chance of an adverse reaction to the medication or a drug residue in the carcass upon slaughter.
5. CAUTION makes the user aware of management considerations. The feed shown would be toxic to horses or other equines. Other cautionary statements may stress the importance of proper mixing or limit feeding.

Some medicated feeds require a withdrawal before slaughter. This is needed to prevent any possibility of a residue in the meat. Examples would include products containing a combination of chlortetracycline and sulfamethazine used in preventing respiratory disease or fenbendazole, which is fed to de-worm cattle. The label will include a statement headed by the term "WARNING" or "LIMITATIONS" to alert the user that special handling is required.

Non-Medicated Label

The remainder of the label deals with nutrient content, ingredients that are used, and net weight. This information is provided whether the feed is medicated or not.

7. Guaranteed analysis, ingredients, and net weight.
   a. The crude protein minimum must be guaranteed for those products claiming to be a source of protein. A mineral supplement does not require a protein guarantee.
   b. If the product has any added source of non-protein nitrogen (NPN) such as urea, ammonium phosphate, or biuret then this is listed directly under the crude protein content and noted as equivalent protein from NPN. The maximum amount must be declared.

      Urea is by far the most common source of NPN. The amount shown in the example lists 3 percent. This does NOT mean the product has 3 percent urea. Feed grade urea has the equivalent of 281 percent protein, therefore approximately 1 percent urea would provide 3 percent protein equivalent (0.03 divided by 2.81 = .01). See CL 314 for a discussion on effective NPN use.
   c. Crude fat is guaranteed because fat is the highest source of TDN. A product having 10 percent fat would have significantly more energy than one having 1.5 percent fat. Grains and forages range from 1 to 4.5 percent fat.
   d. Crude fiber must be guaranteed as a maximum. It is the least digestible of the carbohydrate fraction of feed. The tendency is to criticize supplements that have crude fiber over 10 percent; the belief is that the TDN (or energy) is substantially lower than those having crude fiber content of 4 to 7 percent. However, ingredients such as beet pulp, wheat midds, and soy hulls have highly digestible fiber. Using crude fiber for energy determination gives unreliable results.
   e. Calcium and salt must specify a minimum and maximum amount in the formula. Both calcium and salt are inexpensive ingredients, and the amount included should serve a nutritional purpose rather than just serve as an inexpensive filler. A high level of calcium might be justified in a finishing supplement that will be fed with a high percentage of grain and a minimal amount of hay.

      Salt can be used to attract animals to a free choice supplement and deter intake of the same supplement depending on the amount added. See CL 312 for a discussion on salt limiting. If magnesium or potassium is added, the minimum amount, expressed in percent, should be guaranteed.
   f. The minimum amount of phosphorus is specified. Phosphorus is quite expensive, and the difference in cost between a product having 5 vs. 10 percent phosphorus is substantial. Knowing the phosphorus content of your feed will aid in purchasing the minimum amount of supplemental phosphorus needed.
   g. The minimum amount of Vitamin A in international units per pound is guaranteed. Mature and dry forages are quite low in Vitamin A. Most supplements fed at or near calving, or when animals are on dry feed, include Vitamin A as insurance against a deficiency.
   h. If the product is a mineral and includes the trace minerals zinc, copper, and selenium, the amounts of these minerals must be guaranteed in parts per million (ppm). The amount of selenium included must correspond with the recommended feed intake to ensure that the animal receives the proper daily amount. For example, a supplement designed for 1 pound daily intake would guarantee 6.6 ppm selenium, while one made for 1 1/2 ounces intake would guarantee 66 ppm. Each would provide 3 milligrams of selenium daily when fed according to directions.
   i. As can be seen in the list of ingredients, feed manufacturers are allowed to use generic terms such as plant protein products, forage products, and processed grain products. This is done to allow flexibility in formulation and cost control for the manufacturer. However, it prevents the user from determining the quality of the product.

      Ingredients are listed by amount in the feed, first being most. Without a description of each ingredi-

ent and the amount included, a calculation of the TDN or energy cannot be made. The reputation of the manufacturer and user experience are the best measures of product quality.

Most states also conduct routine testing of manufactured feed. A copy of the report is available from the State Department of Agriculture, a feed manufacturer consistently missing label guarantees would be suspect of providing inferior products.

j. Net weight of the product is guaranteed.

Summary

To effectively use the label information requires several other factors. The weight, age, body condition, weather, and production goal for the cattle establish the nutrient requirements. An analysis of the available feed, whether hay, silage, range, or pasture, provides input of the nutrients available and those that are deficient. Then label and cost can be used to determine if the product under consideration provides those supplemental nutrients at an affordable cost. See CL 303 and 304 for a discussion on supplemental needs and techniques used in selecting a supplement.

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