UNDERSTANDING FEED TAGS CAN LEAD TO BETTER PURCHASES:

How well do you understand your feed labels? Hopefully all producers at least look at the label before purchase, but what information is used to make that final purchase decision? In this article I hope to provide clarity into label reading to be used for all future feed purchases. So without further ado, let us begin.

**The Header:**

At the top of any feed label there should be an identifier (name of product or product number) to help you determine which feed product is in the bag. This is the part of the tag that most producers check to make sure they are buying the same product they did in their prior purchases. On a properly designed tag, an identifier below the product name will tell you whether or not the feed is medicated. This is immensely important for producers because some medications come with withdrawal restrictions, warnings, or special feeding instructions. Beneath a medicated indication, will be a description of what the medication is to provide. This line is intended for both the producer and the feed company. For the producer the statements listed will provide clarity to the intent and purpose of the medication contained within the feed product. For the feed company, this provides a check and balance within the system to help prevent the overuse or improper use of medications. As an example: a feed medicated with the drug Monensin will have the phrase “For prevention of coccidiosis caused by Eimeria Crandalus, E. Christenseni, and E. Ninakohlyakimovae” listed as it is the only legal indication for its use in goats. In this case, a feed company could never recommend its use for the treatment of hoof rot as that would be contrary to the indication. Remember though, it is the duty of anyone who should feed a medicated feed to read the entirety of the tag and follow the corresponding instructions.

**Guaranteed Analysis:**

Below the label header is the guaranteed analysis part of the label. This is one of the most important parts of any label. Depending on the state, the guarantee section will vary in the amount of information that is offered. For instance; in Illinois a grain mix only has to guarantee active drug ingredients, crude protein, crude fat, and crude fiber. If the same feed was to be sold in Indiana yet still produced in Illinois, more items would have to be guaranteed. Many companies however offer additional information they deem pertinent to the customer. If a feed is medicated, the first guarantee will be for any active drug ingredient (medication). There should be a guarantee defining the concentration of any medication contained with in the feed. Following active drug ingredients will be the nutritive guarantees such as crude protein, crude fat, crude fiber, and minerals. If it is a kid feed often just below the crude protein guarantee is a line that says “this contains not more than (0.8-1.8)% equivalent crude protein from non-protein nitrogen“. This statement is there to tell producers that this feed uses either ammonium chloride or urea, and defines what percentage of the crude protein is composed from these ingredients. In most cases, in goat feed it is indicating ammonium chloride; an ingredient commonly used to reduce the incidence of urinary calculi. Urea on the other hand is used as a cheap alternative protein source. It can be a valuable product in many ruminant feeds but comes with a risk of toxicity if overfed. It is important to look at this guarantee line to be certain of the safety of use within any particular species. As we look lower on the guarantee listings, we find that some items are guaranteed at minimums or maximums only while others have a minimum and a maximum guaranteed level. Based on current law certain items only have to be guaranteed at a minimum or maximum level. As an example let’s say you purchase a feed with crude fat guaranteed at 4.5% minimum. That particular feed then must not have any less than 4.5% fat. It would be perfectly legal however for this feed to contain any percentage that would be higher than 4.5% though because it is above the minimum guarantee. It is important to note there is no current legal requirement stating that the minimum guarantees have to be close to actual levels, only that the actual levels must be above the minimum. A feed can be guaranteed at 0.1% and actually analyze at 100% legally! Other items such as some mineral concentrations may require a minimum and a maximum level guarantee is provided on the feed label. These are to ensure that certain elements are always formulated within a defined range. When studying a label always look for indicators of balance. While we like to assume that feed companies are infallible, feeds can get formulated, produced, and guaranteed at unbalanced levels. Reading a label before purchase can reduce health and performance risks caused by mineral imbalances. While it is not always possible; a label with more guaranteed items generally will help producers make more educated decisions before purchasing. Each species is different, as are their nutritional requirements. When studying a label one must also study the requirements of the species they intend to feed to ensure that balance is achieved.

**Ingredients listing:**

Following the guarantees section of the label is the ingredients listing section. This section is the greatest opportunity for any consumer to scrutinize the quality of the formulation before it is even purchased. Based on current law, the ingredients section must list any ingredient contained within the feed in descending order based on inclusion rates. This provides a window for consumers to see into the composition of any feed they may purchase. Current label laws allow for direct identification of each product or identification through the use of blanket terms like grain products, plant protein products, processed grain byproducts, etc. There are many reasons a company may choose to use a blanket term over individual identification such as...

1.) To reduce the space necessary to list each ingredient on a label.
2.) To provide opportunity for a company to adjust a ration based on ingredient availability or cost of production without having to alter the label.
3.) To provide formulation security by making it difficult for competitors to replicate formulations.

These blanket terms can be used for many different ingredient types. Listed below will be a few examples.

**Grain products:** corn, oats, soybeans, wheat, barley, etc
**Plant Protein Products:** soybean meal, Algae Meals, cottonseed meal, linseed meal, peanut meal, safflower meal, yeasts, etc
**Processed Grain Byproducts:** distillers grains, germ meals, gluten meal, hominy, grits, groats, flour, wheat mill run, middlings, etc
**Roughage Products:** pulps, cobs, hulls, husks, etc
**Forage Products:** Alfalfa meals, entire plant meals, hays, and stem meals.
**Animal Protein Products:** Animal products, marine products, and milk products.
**Molasses Products:** dried molasses, liquid molasses, etc.

**Protein Sources Explained:** Processed grain byproducts tend to be more inconsistent and contain high levels of sulfur, phosphorus, and toxins, yet are often cheaper than many other sources of protein. Many companies use these ingredients heavily when trying to produce a more economic feed. The problems attributed to high consumptions of such ingredients can have far-reaching effects on performance and consistency of intake though. (Because on this, it is this nutritionist’s belief that no goat formulation and therefore ingredient listing should start with processed grain byproducts). That is not to say that these products are holistically bad but rather that due to inconsistency should be used as a lesser part of a greater whole. Plant protein products however, are more consistent and balanced protein sources, but can come at higher costs. It is for this reason that many times byproducts are added to a diet. When we consider products like forage products; inclusion rates matter. Forage products when overly simplified, are ground up forage. When purchasing a feed that is primarily composed of forage products, one may actually be purchasing an expensive bag of hay. Forage products have their place in any formulation but their overuse much like processed grain by products, can lead to poor purchase values for the consumer. If more forage is needed in a diet, it will almost always be cheaper for the consumer to invest in baled and stored forage over higher inclusions in the mixed grain products they purchase. By studying the ingredient listing on any feed, one can begin to make educated decisions as to the value of any formulation. The ingredients listing is just one more way a consumer can scrutinize any feed product.

**Feeding Directions:**

While it seems like this area of the label should be self-explanatory it is a crucial part worth covering. Many farms I visit surprisingly have never actually read this part of the label. Under the ingredients listing part of each label is a specific set of feeding directions based on the feed in the bag and species to which it will be fed. These instructions are influenced by both the company designing the feed and the laws applicable to the labels themselves. Using the aforementioned example of a feed medicated with Monensin, the feeding instructions by law must state “feed continuously to kids fed in confinement”. These instructions indicate that the feed is not supposed to be limit fed or fed to goat kids raised outside of confinement. This example in particular is one that would be heavily influenced by current regulations surrounding the drug Monensin. Feed companies may add a few words such as “newly weaned, or growing” to the required feeding indication so long as it does not change the intent of the regulated feeding instructions. It is important for every producer to read the instructions to be certain that they are feeding every product the way it is designed and regulated. If you were to buy the example feed with the intent to limit feed it to lactating does, it would be an improper use of the feed for the indicated purpose.

**Warning and Caution Statements:**

The final product related portion of the label will be any warning or caution statements. Most feeds will have at least one warning or caution statement. Many of these statements are required by law based on any active drug ingredients contained within, while others are due to risks such as copper intolerance in sheep. Much like other parts of the label, it is the duty of the purchaser to read and adhere to the warnings and cautions of each product before feeding it. Sometimes medicated feeds have a withdrawal period for a drug that needs to be carefully managed. These warnings and cautions are for the safety of each producers’ livestock as well as the consumer. Be certain to read a label fully before purchase or use. It could save the life of an animal, and the producer from substantial fines caused by improper drug withdrawal or use.

Feed tags can be needlessly complicated. They are however beneficial once understood. These tags can provide the opportunity to save money and purchase better products. As producers we scrutinize each animal we buy and keep in order to continually improve our herd, and check our fencing for flaws to prevent escape or injury. It is time we all scrutinized our feeds just as much. Remember a good product will always pass the three prong test. Is it balanced? Is it effective? Is it affordable enough to be fed liberally? If the feed can pass the three prong test, a producer is well on the path to success.

-Gregory Meiss