

## Part 2: Everything I know about dog food (and a few things I wish I didn't).

The packaging is very pretty, there are pictures of vegetables, fresh chicken and fruit and it even says 100% complete and balanced. Sounds good, but what is really in the dog food. The best way to start is by looking at the label. Below is the information on one of the top selling "complete and balanced" dog foods sold in the U.S.

I'll start with the "Guaranteed Analysis".

Crude Protein (Min) 21.0%  
Crude Fat (Min) 10.0%  
Crude Fiber (Max) 4.5%  
Moisture (Max) 12.0%  
Linoleic Acid (Min) 1.5%  
Calcium (Ca) (Min) 1.0%  
Phosphorus (P) (Min) 0.8%  
Vitamin A (Min) 10,000 IU/kg

Twenty-one percent protein doesn't sound too bad. The question is; what is the source of the protein and can that protein be easily digested? When you hear the word protein most people think of meat. The reality of this particular dog food is that a large part of the protein comes from grain products (corn and soy). The other catch is they don't have to tell you the percentage of digestible protein. (Feathers, hoofs and my old leather tennis shoes have protein in them but they aren't very digestible.) Corn and soy have protein but dogs weren't designed to graze in fields like cows, they were designed to be hunters. Proteins from non-meat sources lack the amino acids that dogs need. It just seems to me to be common sense that plant protein would be difficult for dogs to digest. Let's check out the ingredients.

**Ingredients:** Ground yellow corn, poultry by-product meal, animal fat preserved with mixed-tocopherols (form of Vitamin E), corn gluten meal, brewers rice, soybean meal, animal digest, calcium carbonate, calcium phosphate, salt, potassium chloride, L-Lysine monohydrochloride, choline chloride, zinc sulfate, Vitamin E supplement, zinc proteinate, ferrous sulfate, added color (Red 40, Yellow 5, Blue 2, Yellow 6), manganese sulfate, manganese proteinate, niacin, Vitamin A supplement, copper sulfate, calcium pantothenate, copper proteinate, garlic oil, pyridoxine hydrochloride, Vitamin B-12 supplement, thiamine mononitrate, Vitamin D-3 supplement, riboflavin supplement, calcium iodate, menadione sodium bisulfite complex (source of Vitamin K activity), folic acid, biotin, sodium selenite.

Ingredients are listed in order of wet weight. Usually the first 5 ingredients make up the bulk of the food. In this food 3 of the first 5 are grain. The only thing you can tell by this list is that there is more corn in it by weight than any other individual item. What you can't tell are the percentages. Is it 35% corn and the remainder of weight is made up of the rest of the stuff or is it 75% corn?

The first ingredient, ground corn, is the only ingredient in this food that isn't a waste byproduct of some process for creating people food. Corn is relatively inexpensive, is a good binding material like flour which allows the kibble to stay in nice little shapes and it contains a fairly high protein content. (A food created with nothing but corn and corn gluten could have a crude protein as high as 20%. Not a bad level but not very digestible by an animal not designed to be a vegetarian.)

Does that mean that corn is bad? Should you avoid any food with corn in it? No, but as the primary ingredient, (corn meal and corn gluten in the first 5), this food seems to me to be more appropriate to feed to chickens than to dogs. This brings us to our second ingredient, poultry by-product meal.

Poultry By-Product Meal: consists of the ground, rendered, clean parts of the

carcass of slaughtered poultry, such as necks, feet, undeveloped eggs, intestines and bones, exclusive of feathers. According to the FDA; Meal, whether it is chicken, beef or lamb is actually higher in protein than say a whole chicken, because there is very little water content in meal versus fresh meat and is an excellent source of highly digestible animal protein for dogs. Even though this doesn't sound very appetizing it is a better source of protein than say whole chicken. Remember ingredients are listed by wet weight, that means that if I put in a pound of whole chicken and  $\frac{3}{4}$  of a pound of wheat, once I bake the moisture out of it there will be a whole lot more wheat than chicken in this food.

As for the rest of the ingredients in this dog food: Corn gluten, the byproduct of making starch. Brewers rice, the shell that is left after removing the kernel of rice used in making malt for beer. Soybean meal, the by-product of making soybean oil. Animal digest, according to the FDA is used as a flavoring agent and is made by chemically or enzymatically treating animal tissue. (Chicken flavor, beef flavor, ect.) The majority of the remaining ingredients are supplements and preservatives.

You can buy this dog food for \$13.99 for a 25lb bag. That's \$.56 a pound. Which means it probably cost them \$.23 a pound or less to manufacture. Taking that one step back the raw ingredients more than likely cost them less than \$.12 a pound. When was the last time you found anything in the grocery store for 12 cents a pound or even 56 cents a pound? (Besides this dog food.)

Could your dog survive on this food? Yes. The true question is: Could your dog thrive on such a diet?

So what do you look for in a dog food label? The answer is the first 5-6 ingredients. So here is a quiz which label is probably the better dog food?

Label 1: Chicken, Corn Meal, Ground Whole Grain Sorghum, Chicken Fat (Preserved with mixed Tocopherols, a source of Vitamin E), Natural Chicken Flavor, Dried Beet Pulp, Fish Meal, Potassium Chloride, Dried Egg Product, Brewers Dried Yeast, Salt, Flax Meal, Calcium Carbonate,

Label 2: Corn Meal, Chicken Meal, Chicken Fat (Preserved with Mixed Tocopherols [a source of Vitamin E] and Citric Acid), Dried Beet Pulp, Lamb Meal, Menhaden Fish Meal, Chicken Liver Meal, Egg Product, Dried Cheese, Rice, Dried Kelp Meal, Flax Seed Meal, Cod Liver Oil, Yeast Culture, Linoleic Acid, Lecithin, Salt, Monocalcium Phosphate, Potassium Amino

In my opinion Label 2 would be the better choice, even though the first ingredient is corn this food has two animal source proteins listed in the first 5. The food in Label 1 sounds good, after all chicken is the first ingredient, but remember, chicken is more than 60% water. So the truth of label 1 is that it has more grain by percentage of dry weight than animal protein.

Next month: The protein controversy

For more information on dog food labeling visit the U.S. Food and Drug Administration's Center for Veterinary Medicine website. <http://www.fda.gov/cvm/petfoods.htm>