

Articles of Interest to Diet Conscious Dog Owners

This article was published in the Ranch Dog Trainer magazine, October/November 1997 issue.

YOUR DOG'S FOOD:

READ AND UNDERSTAND THE LABELS

By Lisa R. Davis, J.D.

Most of the information that you need to determine the quality of the food that you are feeding your dog can be found on the product package; however, even after reading the label it is not always easy to tell what you are getting. Reading and understanding the food manufacturers' list of ingredients is a vital necessity when selecting a dog food. The following basic information is provided to assist you in selecting a dog food by briefly explaining labeling and defining commonly used ingredients.

Labeling laws require manufacturers to list ingredients in descending order of weight before the food is cooked or processed. The ingredient weighing the most (prior to cooking) is listed first; the second heaviest ingredient is listed second, and so on. For example, if the first ingredient listed is corn, then there is more corn (by weight prior to cooking) in the food than anything else. However, interpreting an ingredient listing can be tricky when a particular ingredient contains mostly water which will evaporate during cooking or processing. Typically, the combination of the first 4 to 5 ingredients listed on the package will equal 75% of the food (by weight prior to cooking) and are an extremely accurate indicator of the quality of a particular food.

With an understanding of how to read an ingredients label, you can now begin to understand the actual meaning of some of the most common dog food ingredient listings, which are: Lamb/Chicken Meat; Lamb/Chicken Meal; By-Products; Digest; Grains, Vegetables, and Fillers. (Note: The topic of Vitamins and Minerals and the topic of Preservatives will be addressed in two future articles.)

MEAT AND MEAL

What is the difference between the ingredient listing Meat and the ingredient listing Meal? The principle component of chicken meat is water. By weight, a chicken is 70-75% water. So actually, when you see "chicken" or "lamb" on the top of an ingredient list, it means the water weight in the raw (wet) meat is what qualified it to be first. After the cooking process, where up to 75% of the chicken evaporates, the actual chicken content is reduced to being the 4th or 5th ingredient in your dog's food. So for every five pounds of raw (wet) **meat** used in some brands of dog food, as little as one pound may end up in the finished product. This occurs because 75% of a raw (wet) chicken is water, which evaporates during the cooking process.

On the other hand, **meal** is fresh meat, with the water and fat already removed. It takes 5 pounds of fresh chicken meat to make 1 pound of meal. So when you see chicken meal or lamb meal listed as the first ingredient on a dog food label, the chicken or lamb is really in the bag where it counts as a superior food source for your dog.

Be suspect of the generic Meat Meal ingredient listing, as the type of meat is unidentified. This mystery meat can contain cattle, swine, sheep and/or goats. Often times when this meat meal is used in dog food, it is because it has been labeled and sold to the dog food manufacturers as inexpensive 4-D meat. In the meat packing industry, 4-D means the animal was diseased, disabled, dying, or dead upon its arrival at slaughter. In other words, it is unfit for human consumption so it is sold to dog food manufacturers and used in lower quality dog foods.

BY-PRODUCTS

What are "by-products?" By-products are, as the name suggests, the left overs from human food production. Having been condemned as unfit for human consumption, these non-rendered parts are very inexpensive. The two most common by-products used in dog food are: Chicken or poultry By-Products which are defined as a mix of chicken or poultry parts such as heads, necks, and guts that can contain bones, feathers, beaks, and feet; and Meat By-Products, which are defined as non-rendered parts OTHER THAN MEAT, derived from slaughtered animals such as lungs, spleen, kidneys and other guts.

DIGEST

What is poultry/chicken digest? Again as the name suggests, digest is a type of by-product. It is produced by the process of subjecting poultry or chicken parts containing animal digest to prolonged heat and moisture, or to chemical enzymes with a resultant change or decomposition of the physical or chemical nature of the parts. Basically, you start with no nutritional value and further devalue that.

GRAINS, VEGETABLES, AND FILLERS

Dogs are carnivores (meat eaters) and have digestive systems designed to process MEAT proteins. They have mouths with sharp teeth designed for tearing meat and short digestive tracts ideal for digesting meat. Some grains and vegetables require flat teeth for chewing and long digestive tracts for digesting. Although grains and vegetables like corn and soy are much more difficult for carnivores to digest, they are commonly used in dog food. These ingredients are much less expensive for the food manufacturer to purchase.

A more expensive ingredient combination such as rice and wheat is easier to digest than corn or soy, thus giving your dog a more nutritious and more easily digested food. A rice and wheat combination is one of the most nutritionally balanced grain combinations and provides better nutrition than ordinary single grain foods. Be aware of the ingredient listing Brewers Rice, rather than simply Rice. When used in commercial dog foods, Brewers Rice is the dried, extracted residue of rice resulting from the manufacture of wort or beer. Likewise, when used in commercial dog foods, Corn Gluten is the dried residue of corn resulting from the manufacture of corn starch or syrup. These forms of Brewers Rice and Corn Gluten are unfit for human consumption and are purchased by dog food manufacturers as inexpensive fillers.

Your carnivore requires a diet consisting primarily of meat protein and grains to build and repair tissues and to maintain short and long term good health. Many commercial foods for carnivores contain very little if any MEAT protein and can contain fillers such as peanut hulls, rice hulls, brewers rice and corn gluten. Commonly found in dog foods in varying amounts are soybeans and corn, which are incidentally the number 1 and number 2 allergens of dogs.

Check the first 4 to 5 ingredients on your dog's food label, and determine whether or not your dog's diet is digestible meat proteins, or if it contains primarily non-digestible grains, vegetables and by-products. Being armed with valid information will enable dog owners to look past fancy packaging and advertising and get to the real issue, i.e., what is the nutritional value of the food actually inside the bag. If you do not understand information contained on the food label, call the manufacturer and consult your veterinarian.
ASK QUESTIONS!

DIET AND HIP DYSPLASIA

Does your dog have a susceptibility to hip dysplasia? Are you worried that your large breed dog will have hip dysplasia even though his/her sire and dam are not affected? You can do something to help alleviate some of those worries. Your dog's diet, especially as a puppy, can make a big difference in the chance of them having hip problems later in life. Below is a list of informative quotes from the ABCA about Hip Dysplasia and its relationship to diet and exercise. Please read them and then check your own dog food brand and exercise program.

American Border Collie Association, Inc. (Fall 2000 Newsletter)

*"When a badly formed joint starts to degenerate after a period of time ranging from a few months to many years, the dog has the disease called Canine Hip Dysplasia [CHD].... Is CHD inherited or environmental? In a word, "Yes." There is an inherited component because the shape of the hip joint, the quality of the cartilage, the potential muscle mass, and connecting ligament is as much a product of the dog's genes as is the shape of its skull. There is also an environmental component in which CHD can be aggravated or suppressed.... There is not one "hip gene." The complex hip joint is determined by many genes (polygenic), half from the dam and half from the sire.... However, the many genes involved combine in random ways and two dogs with good hip formation can produce a puppy with terrible hips.... The ABCA encourages breeders to examine the hip scores in as many relations in the breeding pair's family as possible and it encourages puppy buyers to ask about this information.... Does this let the buyer off the hook? Not Really.... As some buyers of puppies from working backgrounds seem to expect a guarantee that the dog will have no genetic problems, it is certainly something to be discussed before the puppy departs for its new home. Now the puppy is home with the new owner where the environmental part of hip development continues. Studies have shown that puppies which are grown slowly and kept from rough physical activity have improved chances of normal hip development in borderline cases. This is because puppies which are kept lean and given good quality, **lower** protein adult dog food experience a more appropriate growth rate of their bones, ligaments and cartilage. The types of activities puppies engage in also contribute to its hip development. During the first year or two it is recommended that rough play, excessive jumping, quick stops and turns, exercise on hard surfaces, and romping with bigger dogs be limited, as wear and tear like this may cause injury and remodeling of hip joints."*

"The only available predictive OFA figures are those they have extracted from some unspecified dog breeds in their data base. As soon as they can be obtained, data for Border collies alone will be subjected to similar analysis."

[The following chart is based on information in the same ABCA article. Notice that even if you bred a dog to one that was diagnosed as dysplastic, your pup will still only have a 25% chance of developing the disease. There is only a 12.5% difference between the first set of parents and the last set. This has led many breeders to believe that the development of CHD, while genetically linked like everything else, may be more often a case of over-nutrition and inappropriate activity in pups.]

If one parent has...	And the other parent has...	Then your pup has this chance of developing CHD:	And your pup has this chance of NOT developing CHD:
OFA Good/Excellent	OFA Good/Excellent	12.5%	87.5%
OFA Good/Excellent	OFA Fair	15%	85%
OFA Good/Excellent	OFA Dysplastic	25%	75%

Dog foods with high protein content (over 24% crude protein) are more likely to promote CHD than those which have lower protein contents. While pups certainly need protein, they are at risk if their food contains percentages that are too high. FLINT RIVER RANCH Adult/Puppy formula is balanced with the protein content well in mind so that your pup can eat all it needs and still minimize its chances of too rapid growth and subsequent CHD. We urge you to compare your puppy food protein content to that of FRR.