

Pet Foods: How to Read Labels

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A diet is as important for pets as people. Understanding the pet food label can help you feed your pet an appropriate diet.

Choosing the right pet food may be something a pet owner gives only a passing thought at the grocery store or it may be a decision that's extensively researched. Either way, when selecting a food that is right for a particular companion animal, read the pet food label carefully before buying. Label items can be confusing, but when you know what to look for, selecting the right pet food becomes much easier.

In order to evaluate the label information, look at the label in two parts: the principal display panel (front of the label) and the information panel (immediately to the right of the principal display panel). Each part is required to contain specific information and may include extra consumer information.

Principal Display Panel

One of the first things to catch your eye is the front of the pet food bag or can. Three pieces of information are required on the front label: the name, purpose, and net weight of the product. The purpose indicates if it is dog food, cat food, or a treat or snack. If listed as a dog or cat food, it is a complete feed and can be the sole source of nutrition for the species indicated, while a treat or snack may not meet all the animal's nutrient needs. The weight of the food should be provided in both pounds or ounces and grams or kilograms so it is easier to compare labels.

Regulations regarding product names can be confusing. If the name of the pet food contains an ingredient name, there are specific regulations as to how much of the named ingredient must be included in the food. A diet named "Beef Dog Food" or "Tuna for Cats," indicates that the food should contain at least 95 percent of the ingredient listed (beef or tuna in these cases), not including water added for processing. When allowing for the water added for processing, the ingredient should make up 70 percent of the diet. This rule only applies to ingredients of animal origin that are listed in the name of the product and not those of plant origin like rice or potato. A diet named "Beef and Rice Dog Food" must still contain at least 95 percent. Few commercial diets fit under this name rule.

A large number of products fit under the guidelines designated as a dinner or formula such as "Beef Dinner" or

"Chicken and Potato Formula." These diets and any that clarify the product as a dinner, supper, platter, or entrée must contain at least 25 percent of the named ingredients. This rule includes both plant and animal origin ingredients listed in the product name. Ingredients listed must be listed in order from highest quantity to lowest quantity, and a minimum of 3 percent of each ingredient listed must be included in the diet.

Another example of how ingredients are included in the pet food's name is one labeled "Dog Food With Beef." Any ingredient listed after the word "with" must be included at a minimum level of 3 percent of the diet. This type of pet food name is seen frequently on canned foods. Some products may say "Beef Flavored Dog Food." In these cases, the diet must only contain a source of the flavor that is detectable whether it is from the ingredient itself or a flavor enhancer. These products may contain more than the minimum amount but should not contain less.

While the name, purpose, and weight are the only items required on the principal display panel, most labels contain additional items, from pictures of pets to potential benefits buying and using the product. Some rules apply to this optional information as well. For example, if there is a picture of the pet food on the label, it must be representative of the product itself. Labels of "new" or "improved" can only be put on the label for six months from the initial change in the product. Claims of "light" or "lean" indicate that the product contains calories and fat, respectfully, below a specified level.

Information Panel

The most important consumer information is on the information panel (*Figure 1*). The information panel is required to include:

- nutritional adequacy statement
- guaranteed analysis
- feeding guidelines
- ingredient list
- manufacturer's contact information

Additional information is also often included on the information panel or other parts of the bag that is not required, but may help in making a decision.

All commercial pet foods are required to be nutritionally complete and balanced. Being complete means all the nutrients

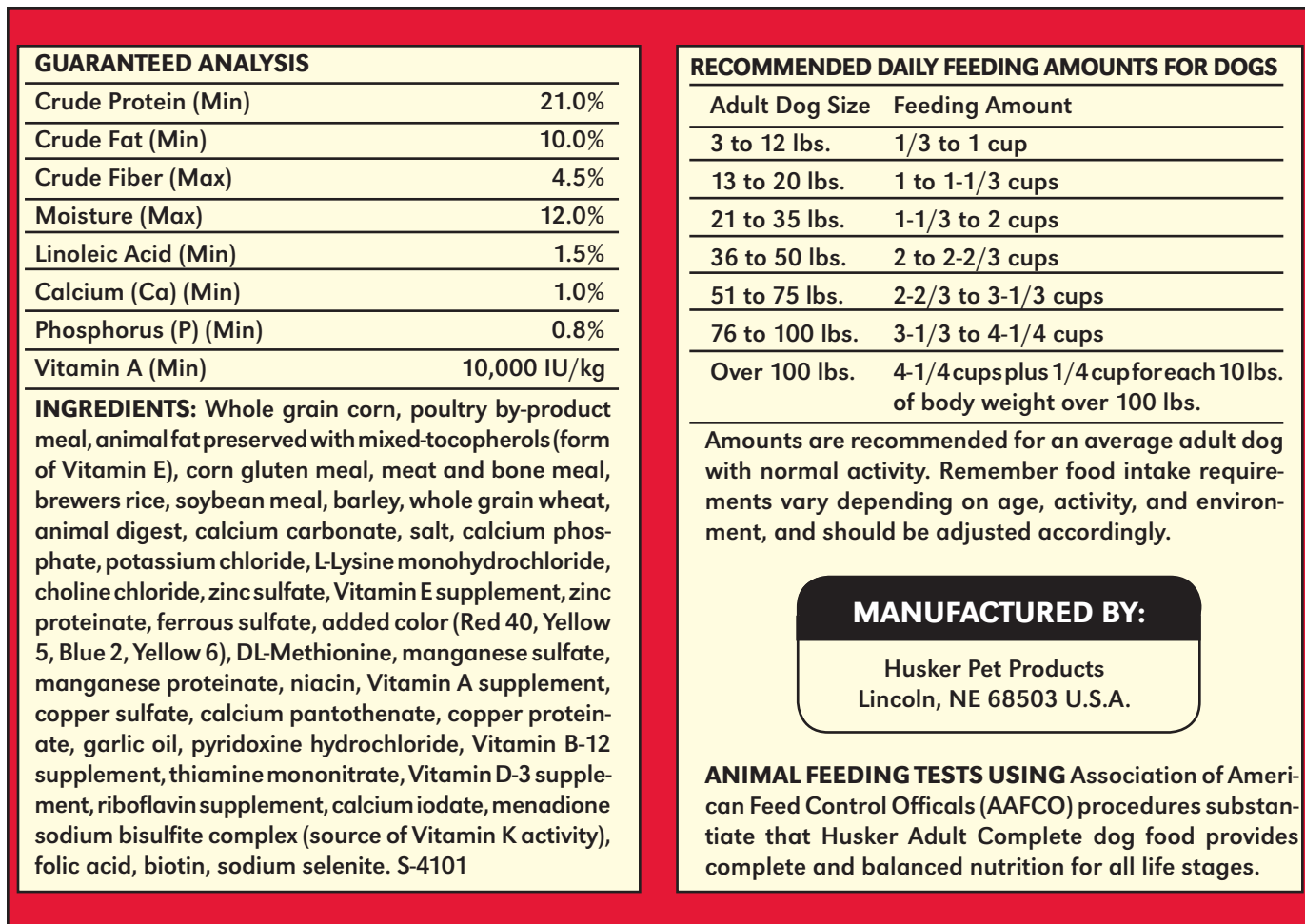


Figure 1. Sample pet food label information panel.

to meet the daily needs of the animal are included in adequate amounts. Balanced means the nutrients are provided in proper proportion to each other. The “Nutritional Adequacy Statement” also included on the information panel, is one of the most important items to look for on a label because it provides the guarantee that the pet food is complete and balanced for the animal it is intended.

All animals require protein (composed of individual amino acids), fatty acids, vitamins, minerals, and water. Carbohydrates are not a required nutrient for cats and dogs but are included in the diet as an energy source to assist the animal with processing food. The daily nutrient amounts required differs according to an animal’s age or life stage.

The Association of American Feed Control Officials (AAFCO) sets guidelines for what concentrations of each nutrient should be in dog or cat food to ensure the animal’s nutritional needs are met — similar to recommended daily allowances for people. However, not all foods are adequate for all animals. Some pet foods are often formulated with a specific life stage in mind. For example, some dog foods are intended only for an adult dog at maintenance (meaning it is not growing, pregnant, or engaging in vigorous exercise), while others meet the needs of all life stages from puppies to senior dogs. The AAFCO guidelines provide two sets of requirements:

one for the adult animal and one for growth, gestation, and lactation. A pet owner should check the nutritional adequacy statement to make sure the pet food they have chosen meets the needs of their pet.

The nutritional adequacy statement also indicates what methods were used to determine the adequacy of the diet. The statement can look like this: “[Name of product] is formulated to meet the nutritional levels established by the AAFCO Dog Food Nutrient Profiles for [specific life stage].” Or like this: “Animal feeding tests using AAFCO procedures substantiate that [name of product] provides complete and balanced nutrition for [specific life stage].”

The first statement indicates the diet was deemed nutritionally adequate by chemically analyzing the nutrient content of the ingredients and/or the final product in a laboratory and determining that the nutrient concentrations met or exceeded what is set forth in the AAFCO nutrient profiles. The second indicates the diets were fed to animals of the life stage the diet is intended for, following specific AAFCO protocols, including the minimum number of animals and length of time fed. Animal feeding tests — the preferred method for evaluating the food — provides a critical evaluation of the product and will help to ensure the diet will be adequate for the pet.

Guaranteed Analysis

The guaranteed analysis portion of the label provides the nutrient composition of the diet. It must include the minimum percentage of crude protein and crude fat as well as the maximum percentage of crude fiber and moisture. “Crude” indicates that the methods used to determine the nutrient concentrations provide a rough estimate of quantity; it does not refer to the quality of the nutrients. Protein, fat, fiber, and moisture (water) are the only nutrients the manufacturer must include in the guaranteed analysis, although sometimes others like calcium and phosphorus for dogs or taurine and ash for cats are provided.

Nutrient values are provided on an “as is” basis, meaning that the percentage is based on the current form of the diet. The as is concentrations will be higher in dry pet foods compared to canned foods. This occurs because the majority (approximately 78 to 82 percent) of a canned food is water so the nutrients are more diluted than in a dry food (approximately 10 to 12 percent moisture). In order to compare diets more accurately for nutrient content, they should be compared on a dry matter basis (with all the moisture removed). This can be done by dividing the nutrient concentration by the dry matter concentration and multiplying by 100. The rule of thumb is to multiply the canned food concentrations by four to five to get a rough estimate to compare to a dry food. The fact that a canned diet is predominately moisture will result in the need to feed a higher volume of that food each day to meet the animal’s nutrient needs. For an adult dog at maintenance, AAFCO guidelines set a minimum protein percentage at 22 and fat at 5 on a dry matter basis. For an adult cat, the minimum protein percentage is 26 and fat is 9 on a dry matter basis. When looking at the guaranteed analysis, these values should be at or above these required levels. Many commercial diets will include much higher fat concentrations to improve the taste of the product to the animal. The exceptions include clinical or veterinary diets where a low protein or fat content would be warranted to prevent or treat disease symptoms. In addition, weight loss diets often include lower fat concentrations, but still must meet the AAFCO minimum recommendation for fat.

Feeding Guidelines

Another item to consider is the feeding guidelines. These tell a pet owner how much to feed based on their pet’s body weight and life stage.

One difference between high and low quality pet foods is the digestibility of the product. This is the amount of the nutrients in the food the animal is able to break down and absorb within its gastrointestinal tract. For a more digestible food, the animal is able to more efficiently use the nutrients provided and therefore needs to be fed less. With a less digestible diet, the animal would need to be fed more grams/cups of food per day to ensure the same amount of nutrients are absorbed. By comparing the amount required to be fed per day and the price of the food, you can sometimes find that a more expensive food (on a weight basis) is actually

cheaper than a more economical food when daily food costs are calculated.

It is critical that the feeding guidelines be followed when feeding pets. Estimates indicate that nearly half of the American pet population is overweight. The main causes are consuming too many calories and not exercising enough. By carefully measuring the amount of food a pet should receive each day, obesity, which carries similar health risks for pets as for humans can be prevented.

An 8-oz measuring cup should be used to measure one cup of food. You can use this then pour the food into a scooper or other container used to feed your pet and place a mark on the container so you’ll know how much to dispense daily. Or, simply get a measuring cup to use as a food scoop.

In some cases, feeding the recommended level on the label will still result in overfeeding the pet. Label guidelines are merely estimates for the average animal, and in some cases the animal may need to consume slightly less than the label guideline, particularly if the animal is less active. While caloric density (kilocalories per cup) is not required to be on pet food labels, many companies provide this information on their labels or on the company’s Web site.

Using this information can help you calculate your pet’s calorie intake more accurately.

To calculate a dog’s daily energy requirement in kilocalories per day, using the following:

For a typical dog: $95 \times (\text{body weight in kg})^{0.75}$

For an active adult dog: $130 \times (\text{body weight in kg})^{0.75}$ (Table I).

The daily caloric requirement for a pet cat can be calculated using $100 \times (\text{body weight in kg})^{0.67}$.

To use these equations, convert the pet’s weight in pounds to kilograms by dividing by 2.2. The energy requirement calculation will indicate how many calories the pet should consume per day. If the calorie intake per day is divided by the kilocalories per cup in the pet food, an estimate of the exact number of cups of food to feed your pet per day is provided. For example, if your dog food had 374 kilocalories per cup and your dog weighed 10 pounds, the dog would need to consume about 0.8 cups or 4/5 cup per day (295.7 kilocalories per day divided by 374 kilocalories per cup equals 0.79 cups per day).

Table I. Metabolic body weight and daily calorie requirements for dogs and cats of various weights.

Weight, pounds	Dog		Cat	
	Weight, kg ^{0.75}	kilocalories required/d ¹	Weight, kg ^{0.75}	kilocalories required/d
5	1.85	175.8	1.73	173.3
10	3.11	295.7	2.76	275.8
15	4.22	400.8	3.62	361.9
20	5.24	497.4	4.39	438.8
30	7.10	674.1		
40	8.80	836.5		
50	10.41	988.9		
60	11.93	1133.8		

¹Calculated using $95 \times (\text{body weight in kg})^{0.75}$ for a typical inactive pet dog.

It is critical to monitor a pet's weight for changes over time and adjust how much and what it is being fed accordingly. One method for tracking a pet's weight is to use a body condition scoring chart. Body condition scores estimate how closely an animal is to its ideal weight based on the physical appearance of the pet. The ideal dog should have a clear waistline, the abdomen should be tucked up in the back, and the ribs should be easily felt. The ideal cat should have an observable waist and ribs that can easily be felt under a light layer of fat. One good body condition scoring system available was developed by Nestle Purina Pet Care and is available through their Web site (*purina.com*) or on many of their pet food labels.

Ingredient List

The ingredient list provides an accurate account of the ingredients in the diet from highest to lowest weight. This weight includes moisture content so sometimes it is difficult to determine which one contributes more to the diet on a dry matter basis. Whole meat products like beef or chicken are high moisture (up to 70 percent) and even if listed first may actually contribute a lower nutrient concentration than a low-moisture ingredient like a meat meal or soybean meal (about 10 percent moisture). Therefore, it is important to analyze the top ingredients together rather than putting more priority in the top ingredient than the others.

Similar to human foods, pet foods are regulated by the Food and Drug Administration; they must not include ingredients containing harmful substances. The ingredients used must be "generally recognized as safe" (GRAS) before they can be included in a diet. Ingredients that are shown to pose potential health risks are either prohibited or tightly regulated.

When evaluating an ingredient list, look for a meat-based protein source such as whole meat or a meat meal. *Whole meat* is required to contain only meat, *meat meals* contain ground and dehydrated meat, and *meat byproduct meals* contain ground and rendered meat and other animal parts such as internal organs, chicken heads and feet, or intestine (but does not include feathers). If the label doesn't specify the source of the meat (chicken, beef, lamb), then it can be a mixture of meat from different animal sources. If the source of the meat is identified, then only meat from that animal can be included in that ingredient.

Manufacturer Name and Address

Pet food labels must include the manufacturer's name and address, and preferably will also include a phone number. This provides a means to easily contact the manufacturer to obtain answers to questions. A manufacturer that is responsive and willing to provide information on the diet should be chosen. The manufacturer will not provide information about specific amounts of each ingredient that are included in the

diet, as that is part of their proprietary formula, but they can provide information about nutrient composition and other dietary concerns.

Expiration Date

One additional item to look for on the pet food label is the expiration date. It's often on the bottom of cans, pouches, or bags or located near the UPC code. Often the expiration date is approximately one year after its manufacture. This date is indicative of the date the pet food was processed but does not take into account the time that ingredients may have been stored prior to production. While at the time of production, diets are nutritionally complete and balanced, some nutrients, water soluble vitamins like B and C in particular, are not stable and will degrade over time. The expiration date is intended to ensure that the diet is still nutritionally complete when the diet is purchased. The breakdown of nutrients may be more rapid if food is stored improperly such as in a warm, humid environment. Make sure to check the expiration date when purchasing a pet food to ensure the freshest food possible.

The information provided on a dog or cat food label is important and can be helpful when choosing a diet that will help pets lead a long and healthy life. Checking pet food labels to ensure the proper diet is fed will allow pet owners to make more informed decisions and ensure that all the nutritional needs of their pet are being met. After carefully reading the label of the pet food, a pet owner can feel confident that the choice that is right for their pet was made.

This publication has been peer reviewed.

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Feeding & Nutrition**

Issued August 2009

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