

# “Deciphering the Pet Food Label”

from BloomingPaws veterinarians

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So you’ve finished reading the label on the pet food and you're confused — ingredients versus nutritional facts, guaranteed analysis, an endorsement by AAFCO... What does it all mean?

A pet food label is a legal document regulated by the Association of American Feed Control Officials (AAFCO) and it is the primary means of communication between the pet food manufacturers and pet owners.

Per AAFCO standards, the pet food labels must include:

## 1. Food type and product name:

- The food type tells us if the food is made for a cat or dog and the product name describes the food. Many words are used as part of the product name to appeal to consumers, such as “dinner, platter, etc...” AAFCO has rules for their use. The following table shows AAFCO’s standards:

<b>If you see:</b>	<b>The product must contain:</b>
<b>Beef</b> (or other meat)	At least 95% beef (minus water for processing)
Beef <b>Dinner</b> (entree, etc.)	25-94% beef
<b>With</b> beef	At least 3% beef
Beef Flavor	A “detectable” amount

## **2. Net weight**

- Net weight shows the amount of food in the container, often in pounds and grams.
- It may give a rough estimate of the energy density of canned foods, many of which contain about 1 Cal/gram as fed.
- One reason to read the net weight when comparing foods is that manufacturers sometimes reduce the size of containers without changing the price. For example, what many think of as a "16 oz." can is really 13.2 oz., and a "6 oz." can really may be 5.5 oz.

## **3. Guaranteed Analysis**

- This section of the label indicates minimum or maximum levels of nutrients such as protein, fat, fiber and moisture. The minimum percent of crude protein and crude fat, and the maximum percent of crude fiber and moisture are always required.
- It does not indicate or provide exact levels of nutrients in the food.
- These measures are not a guarantee of the nutritional quality of the food.
- Moisture levels in foods vary, making it nearly impossible for an average pet owner to accurately compare nutritional information.

### More on moisture levels and nutritional values:

Guarantees are declared on an "as fed" or "as is" basis, that is, the amounts present in the product as it is found in the can or bag. This doesn't have much bearing when the guarantees of two products of similar moisture content are compared (for example, a dry dog food versus another dry dog food).

However, when comparing the guaranteed analyses between dry and

canned products, one will note that the levels of crude protein and most other nutrients are much lower for the canned product. This can be explained by looking at the relative moisture contents. Canned foods typically contain 75-78% moisture, whereas dry foods contain only 10-12% moisture. To make meaningful comparisons of nutrient levels between a canned and dry product, they should be expressed on the same moisture basis.

The most accurate means of doing this is to convert the guarantees for both products to a moisture-free or dry-matter basis. The percentage of dry matter of the product is equal to 100% minus the percentage of moisture guaranteed on the label. A dry food is approximately 88-90% dry matter, while a canned food is only about 22-25% dry matter.

To convert a nutrient guarantee to a dry-matter basis, the percent guarantee should be divided by the percentage of the dry matter, then multiplied by 100. For example, a canned food guarantees 8% crude protein and 75% moisture (or 25% dry matter), while a dry food contains 27% crude protein and 10% moisture (or 90% dry matter). Which has more protein, the dry or canned? Calculating the dry matter protein of both, the canned contains 32% crude protein on a dry matter basis ( $8/25 \times 100 = 32$ ), while the dry has only 30% on a dry matter basis ( $27/90 \times 100 = 30$ ). Thus, although it looks like the dry has a lot more protein, when the water is counted out, *the canned actually has a little more*. An easier way to remember this is to recall that the amount of dry matter in the dry food is about four times the amount in a canned product. To compare guarantees between a dry and canned food, first multiply the guarantees for the canned food times four.

It is especially important to look at the moisture guarantee for canned foods, even when comparing a canned food with another canned one. Under AAFCO regulations, the maximum percentage moisture content for a pet food is 78%, except for exempted products labeled as a "stew," "in sauce," "in gravy," or similar terms. The extra water gives the product the

qualities needed to have the appropriate texture and fluidity. Some of these exempted products have been found to contain as much as 87.5% moisture. This doesn't sound like much difference until the dry matter contents are compared. For example, a product with a guarantee of 87.5% moisture contains 12.5% dry matter, only half as much as a product with a 75% moisture guarantee (25% dry matter).

#### **4. Ingredients**

- The difference between "ingredients" and "nutrients" needs to be clarified. Ingredients are the vehicles that provide nutrients, while nutrients (water, energy sources, protein sources, vitamins and minerals) are food components that support life and are metabolically useful. For example, lamb is an ingredient that provides nutrients such as protein, fatty acids and vitamins.
- Animals don't have "ingredient requirements"; instead, they need nutrients, which are contained in ingredients. Thus, a wide variety of ingredients can be combined to produce a nutrient profile that is appropriate for the pet for which the diet is intended.
- It is not possible to judge the quality of the diet by the ingredient list. Ingredients are listed in descending order by weight. "Descending order" must be evaluated carefully to avoid being misled. For example, a meat source like "fresh beef" followed by two or three grain sources may indicate that grain, not meat, is the primary ingredient. This is because it means that the meat contains its natural water content (up to 75% of its weight), which is removed during processing of dry foods.

#### **5. Manufacturers or distributor's name and address**

- We encourage you, the consumer and the pet owner, to call the companies to learn more about their products. This would include the place of the pet food choice that you are considering.

- Many commercial foods also provide a toll-free telephone number or website, which may provide information concerning the food.

## **6. Feeding Directions**

- Feeding directions instruct you on how much product should be offered to your pet. At minimum, they should include verbiage such as "feed \_\_\_ cups per \_\_\_ pounds of body weight daily." On some small cans, this may be all the information that can fit onto the label.
- The feeding directions should be taken as rough guidelines, a place to start. Breed, temperament, environment, and many other factors can influence food intake. Something to keep in mind: Manufacturers attempt to cover almost all contingencies by setting the directions for the most demanding (i.e. growing and pregnancy/lactation). The best suggestion is to offer the prescribed amount at first, and then to increase or cut back as needed to maintain body weight in adults or to achieve proper rate of gain in puppies and kittens.
- AAFCO regulations have been developed to allow manufacturers to substantiate calorie content and include a voluntary statement. If a calorie statement is made on the label, it must be expressed on a "kilocalories per kilogram" basis. Kilocalories are the same as the "Calories" consumers are used to seeing on food labels. A "kilogram" is a unit of metric measurement equal to 2.2 pounds. Manufacturers are also allowed to express the calories in familiar household units (for example, "per cup" or "per can") along with the required kilocalories per kilogram statement. Even without this additional information, however, consumers can make meaningful comparisons between products and pick the product best suited for their animals' needs. As with the guaranteed analysis, the calorie statement is made on an "as fed" basis, so corrections for moisture content must be made as described above. To roughly compare the caloric content values between a canned and a dry food, multiply the value for the canned food by four.

## **7. Nutritional Adequacy Statement or "AAFCO Statement"**

- AAFCO is an organization that sets the minimal nutritional standards for pet foods sold in the United States.
- This legally required statement verifies the testing method used to determine nutritional adequacy.
- The statement indicates whether the food provides complete and balanced nutrition for a specific life stage of your pet (growth, adult, pregnant/nursing), or if the product is nutritionally adequate for all life stages.
- Beware if the package states that the food supports "all life stages." The product likely contains excessive levels of some nutrients necessary for the most demanding life stage, which is growth. For example, it might contain higher levels of protein and calcium for kittens, but those levels are inappropriate for an adult or senior cat.

### **Other label considerations**

#### Premium Foods:

Many pet foods are labeled as "premium," and some now are "super-premium" and even "ultra-premium." Other products are touted as "gourmet" items. Products labeled as premium or gourmet are not required to contain any different or higher quality ingredients, nor are they held up to any higher nutritional standards than are any other complete and balanced products.

#### Natural and Holistic Pet Foods:

When a pet food is labeled as "natural," it means that according to FDA guidelines, food ingredients have not had any chemical alterations. (Similarly to human food, organic products must be marked with an official seal from the USDA to qualify.) Be cautious about putting too much stock in the term "holistic," since there is no legal definition and it doesn't necessarily mean anything on a

pet food label.

"Light," "lean," "low-," or "reduced-" calorie or fat:

These qualifying terms have been approved by AAFCO to appear on pet food labels. The terms refer to energy density in kcal/kilogram diet, calibrated by the percentage of moisture. The definitions for dog and cat foods are presented in the table below:

<b>Term</b>	<b>&lt; 20% H<sub>2</sub>O</b>	<b>20-65% H<sub>2</sub>O</b>	<b>≥ 65% H<sub>2</sub>O</b>
<b>"Light", "lite", "low calorie"</b>			
Dog	≤3100 kcal/kg	≤2500 kcal/kg	≤900 kcal/kg
Cat	≤3250 kcal/kg	≤2650 kcal/kg	≤950 kcal/kg
<b>"Lean", "low fat"</b>			
Dog	≤9% fat	≤7% fat	≤4% fat
Cat	≤10% fat	≤8% fat	≤5% fat

These terms permit manufacturers to draw attention to foods with reduced calorie and fat content. Unfortunately, as is the case with human foods, these terms ignore the fact that energy and fat intake are feeding issues rather than diet issues. The increase in "low-fat" human foods during the last two decades of the 20<sup>th</sup> century has been associated with a relentless increase in the number of obese humans. Thus, unless food intake is controlled, the nutrient density of the diet cannot moderate body condition, seductive as the promise might be.

Similarly, terms such as "promotes urinary tract health" on commercial cat food labels have little veterinary value. This expression, coined in the 1980s, was intended to convey that the product was formulated to reduce the risk of struvite stone (i.e. bladder stones found in both dogs and cats) formation. The subsequent increase in the prevalence of calcium oxalate stones, and the recognition that stones are not the most common cause of signs of lower urinary tract signs, makes this term of limited and questionable descriptive value.

### "Recommended by veterinarians"

Marketers can do a lot of hyping such as putting the words "recommended by veterinarians" on the dog food label. However, due to the fact that there is no guideline for that usage of the term, it becomes meaningless. For example, even if one veterinarian out of a million recommends it, it can still be labeled as "recommended by veterinarians"!

## **Conclusion**

Pet owners and veterinary professionals have a right to know what they are feeding their animals. The pet food label contains a wealth of information, if one knows how to read it. Do not be swayed by the many marketing gimmicks or eye-catching claims. If there is a question about the product, contact the manufacturer or ask an appropriate regulatory agency. Your questions help to

remind manufacturers and regulators that you, the consumer and pet owner, are concerned and want adequate and accurate information.

**Online Sources:**

<http://www.fda.gov/AnimalVeterinary/ResourcesforYou/ucm047113.htm>