



**Birchwood
Animal Hospital**
~ for the love of animals since 1959 ~

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Evaluation of Commercial Pet Foods

Factors to consider:

- Complete and balanced Nutrition
- Palatability
- Digestibility
- Metabolizable energy (ME) content
- Feeding Cost
- Reputation of Manufacturer
- Use of corn, grain and byproducts
- Dental Health Contribution
- Taurine Content (cats only)
- Urine-acidifying ability

Complete and Balanced Nutrition

Definition: Food contains all the essential nutrients at levels that meet a pet's requirements

There are two options that allow companies to use this claim:

- series of AAFCO sanctioned feeding trials
- food is formulated to meet maximum and minimum levels of nutrients established by AAFCO's nutrient profiles for cats and dogs

Feeding trials are currently the best way to assess nutrient availability as formulation alone cannot detect all problems and inadequacies.

All owners should check food labels for a complete and balanced claim. The life stage indicated on the bag should correspond with the owner's intended use for the food.

Palatability

Definition: acceptable or agreeable to the palate or taste. In regards to pet food, palatability is not so much a property of the food but rather the animal's perception of the food.

Palatability is important because the food must be acceptable to the pet to provide optimum nutrition. It is greatly affected by smell as an animal's olfactory sense is much higher developed than our own. The prevalent use of palatability as a marketing tool in recent years has contributed to the increasing problem of obesity in cats and dogs. *Owners should be aware that extremely tasty foods often induce overeating.*

Digestibility

Definition: A direct measurement of the proportion of nutrients in the food that are available for absorption. For example a diet can be 28% protein, but only 70% of the protein is digestible.

True digestibility can only be measured by controlled feeding trials. As the quality of the food increases, so will the digestibility.

Low digestibility can manifest in:

- excess production of gas
- loose stools
- diarrhea
- having to feed a larger amount to maintain body weight
- mucous, blood or recognizable components of pet food
- unhealthy looking skin or coat

It is important to note that the labels of two completely different products (based on quality) may have the same ingredients list and guaranteed analysis, but when the products are fed, they have different digestibility.

Some more reputable pet food companies may have digestibility claims in their literature. Owners should choose foods that have a digestibility of 80% or higher.

Metabolizable Energy Content

Definition: The ME of a pet food represents the amount of energy that is available for an animal to use. It is typically expressed in kilocalories (kcal).

ME can be determined by feeding trials or (less accurately) mathematical calculation. It is important to consider when purchasing a food because it will directly affect the quantity of food needed to meet the pet's energy requirements, which in turn determines the amount of money that will be spent on food. In general, owners should select a pet food that contains between 3000-5000kcal/kg on a dry matter basis, depending on the needs of the specific animal.

Feeding Cost

As the quality of the pet food increases, so does the cost to the manufacturer and by extension, the cost to the buyer. It is important to consider the cost of feeding the food rather than the cost of the food itself. For example:

- Diet A: \$25 for a 40lb bag at 4500 kcal/kg
- Diet B: \$22 for a 40 lb bag at 3600 kcal/kg

	ME requirement	Kcal/kg	Quantity per day	Cost per day
Diet A	4500	4500	1 kg (2.2lbs)	\$1.37
Diet B	4500	3600	1.25kg (2.75lbs)	\$1.51

Although the bag of Diet B costs less, the feeding expense is higher.

Reputation of the Manufacturer

Only companies that have a national reputation for consistent, high quality products and devoting resources to consumer education about proper nutrition should be considered.

Reputable companies should have the following:

- A toll free number for inquiries about their products on products package
- A timely response to inquiries
- Be able to supply information about ingredients, level of testing, digestibility, ME content and nutrient content.

Corn, Grain and By-products

Corn and Grain – corn is a highly digestible carbohydrate when processed. When reputable companies use corn, it has been formulated to be digested easily. It is an excellent source of fatty acids for a healthy skin and coat. It also has antioxidants that reduce the risk of many diseases. Foods that include grains are as digestible as those that do not and there is no scientific research to support the use of grain free diets.

By-Products – With extremely rare exceptions, all manufactured pet foods contain by-products. Common by-products in pet foods are animal fats, liver, kidney and heart. Most by-products are highly palatable and nutrient rich. Pet food companies do not need to include the source of the by-products on the label. Therefore, owners should only be buying food from companies that are reputable and give evidence of their products being highly digestible.

Other factors to be considered:

- Taurine in cat food – companies should be able to show that their product will maintain normal blood taurine levels in cats when fed on a long term basis.
- Ability to produce acidified urine. A urinary pH of 7 or higher is believed to be an important risk factor in the production of urinary crystals or stones. Feeding a diet that maintains a urinary pH of 6-6.8 inhibits the development of such crystals. However, a pH of lower than 6 can also be harmful. This information should be available in the product's literature.
- Dental Health – Specially formulated dental foods contribute to dental health because of the abrasion action of chewing. In addition, some dental foods include a chemical coating to inhibit calculus formation

The overall best judge of a commercial pet food is the animal itself. A diet should be fed for a minimum of two months before evaluating the total effect on the animal's health. A diet that provides good nutrition and energy supports normal weight gain or maintenance when required, healthy skin and coat, normal fecal volumes and consistency and overall vitality of the pet.