Choosing a pet food from among the cans, bags, and boxes stacked on store shelves can be a daunting experience. Which formulation of food is best? Is my dog old enough for "adult formula"? Does my cat really need "premium"? Will Fido be healthier on "natural" food and will Fluffy fully appreciate "gourmet"?

U.S. consumers spend more than $11 billion a year on cat and dog food, according to the Pet Food Institute. And pet food manufacturers compete for these dollars by trying to make their products stand out among the many types of dry, moist, and semi-moist foods available. Pet food packaging carries such descriptive words as "senior," "premium," "super-premium," "gourmet," and "natural." These terms, however, have no standard definition or regulatory meaning.

But other terms do have specific meanings, and pet foods, which are regulated by the Food and Drug Administration's Center for Veterinary Medicine (CVM), must carry certain information on their labels. Consumers can be confident that their pets are eating a nutritionally sound food if they understand the full significance of these labels.

**The Right Stuff: Choosing a Good Pet Food**

So how can pet owners choose the right food for their pets? CVM’s pet food specialist William Burkholder, D.V.M., Ph.D., recommends examining three parts of the pet food label: the life stage claim, the contact
Many owners are guilty of overfeeding their pets, and even a “light” food can cause weight gain.

Sure that particular substance is included or excluded.

Some people prefer to pass up animal by-products, which are proteins that have not been heat processed (unrendered) and may contain heads, feet, viscera and other animal parts not particularly appetizing. But protein quality of by-products sometimes is better than that from muscle meat, says Burkholder.

“Meal” is another ingredient that some people like to avoid. In processing meat meal or poultry by-product meal, by-products are rendered (heat processed), which removes the fat and water from the product. Meat or poultry by-product meal contains parts of animals not normally eaten by people.

Some consumers try to avoid pet foods with synthetic preservatives, such as butylated hydroxyanisole (BHA), butylated hydroxytoluene (BHT), and ethoxyquin. Ethoxyquin, in particular, has been hotly debated. Current scientific data suggest that ethoxyquin is safe, but some pet owners avoid this additive because of a suspected link to liver damage and other health problems in dogs. CVM has asked pet food producers to voluntarily lower their maximum level of ethoxyquin in dog food while more studies are being conducted on this preservative, and the industry is cooperating.

Many products preserved with naturally occurring compounds, such as tocopherols (vitamin E) or vitamin C, are available. These products have a much shorter shelf life than those with synthethic preservatives, especially once a bag of food is opened.

Some animal nutritionists recommend switching among two or three different pet food products every few months. Burkholder says nutritional advice for people to eat a wide variety of foods also applies to pets. Doing so helps ensure that a deficiency doesn’t develop for some as yet unknown nutrient required for good health. When changing pet foods, add the new food to the old gradually for a few days to avoid upsetting the pet’s digestive system.

Pet Food Safety and Nutrition

No matter what choice they make, consumers can take comfort in knowing that pet food is manufactured under a series of standards and regulations. These regulations require some nutrients and additives, disallow others, and stipulate certain information that must be on the label. The labels of packages and cans of commercial cat and dog food must list five pieces of information: guaranteed analysis, nutritional adequacy statement, ingredients, feeding guidelines, and the manufacturer’s name and address.

With the exception of a nutritional adequacy statement, these items must also appear on commercial food labels for other pets, such as gerbils, snakes, and parakeets.

Guaranteed Analysis

The guaranteed analysis specifies the product’s minimum percentages of crude protein and crude fat. It also gives the maximum percentages of crude fiber and moisture. (“Crude” refers to a specific method of measuring the nutrient, and is not an indication of quality.) Although not required, some manufacturers also specify the percentages of other nutrients, such as ash and taurine in cat food, and calcium and phosphorus in dog food.

The amounts of crude protein and most other nutrients appear less for
Always keep canned pet food refrigerated after opening.

If you store dry pet food in a container other than its original bag, be sure to wash the empty container with soap and water before adding food from a new bag. The residual fat that settles on the bottom of the container can become rancid beyond its shelf life (the date stamped on the bag). This spoiled fat may contaminate fresh food added to the container, causing vomiting or diarrhea when fed to your pet.

—L.B.

canned products than for dry ones because of differences in moisture content. Canned foods typically contain about 75 percent water, while dry foods contain only about 10 percent.

Nutritional Adequacy
The nutritional adequacy statement assures consumers that a product meets all of a pet's nutritional needs. The Association of American Feed Control Officials (AAFCO), an advisory body of state and federal feed regulators, develops recommended standards for nutrient contents of dog and cat foods. AAFCO also publishes ingredient definitions and regulations.

The FDA's CVM works in partnership with AAFCO to determine safe pet food ingredients and testing protocols. In addition to federal regulation of pet food, most state governments regulate pet foods and labeling through their agricultural departments. AAFCO has created a model feed bill that states often adopt in their own laws.

CVM gives scientific and regulatory advice to AAFCO and the states on pet food issues, and CVM representatives serve on AAFCO committees and meet regularly with AAFCO's board of directors. CVM investigators also team with AAFCO to check out questionable pet food ingredients or claims.

Manufacturers can show their food meets AAFCO's standards for nutritional adequacy by calculations or by feeding trials. Calculations estimate the amount of nutrients in a pet food either on the basis of average nutrient content of its ingredients, or on results of laboratory tests—but not animal feed tests. If the calculations show that the food provides sufficient nutrients to meet the specific AAFCO nutritional profile referenced, the pet food label will carry a statement like: "(Name of product) is formulated to meet the nutritional levels established by the AAFCO (Dog or Cat) Food Nutrient Profiles for (specific life stage)."

Feeding trials signify that the manufacturer has tested the product (or a similar product made by the same manufacturer) in dogs or cats under strict guidelines. Products found to provide proper nutrition based on feeding trials will carry a statement such as: "Animal feeding tests using AAFCO procedures substantiate that (name of product) provides complete and balanced nutrition for (specific life stage)."

Regardless of the method used, the nutritional adequacy statement on a cat or dog food label must also tell which life stage the product is suitable for. AAFCO has established two nutrient profiles each for dogs and cats—growth/lactation and maintenance—to fit their life stages.

Every product must meet at least one of these two profiles. A product intended for growing kittens and puppies, or for pregnant or lactating females, must meet AAFCO's nutrient profile for growth/lactation. Products that meet AAFCO's profile for maintenance are suitable for an adult, non-reproducing dog or cat of normal activity level, but may not be adequate for an immature, reproducing, or hard-working animal. A product may claim that it is for "all life stages" if it is suitable for adult maintenance and also meets the more stringent nutritional needs for growth and reproduction.

Growth/lactation and maintenance are the only nutrient profiles authorized by AAFCO and CVM, so terms like "senior" or "formulated for large breed adults" mean the food meets the requirements for adult maintenance—and nothing more.

Snacks and treats that are clearly identified as such are not required to include a nutritional adequacy statement. But these foods, in all other respects, must meet FDA and state regulations for pet food labeling. Dog chews made from rawhide, bone, or other animal parts (such as pig ears) are also considered "food" since pets eat them. These products must bear a list of ingredients and provide the manufacturer's name and address, but they are not required to give a guaranteed analysis, nutritional adequacy statement, or feeding instructions.

Ingredients
Like human foods, pet foods are regulated under the Federal Food, Drug, and Cosmetic Act, and must be pure and wholesome, contain no harmful substances. They also must be truthfully labeled. Foods for human or pet consumption do not require FDA approval before they are marketed, but they must be made with ingredients that are "generally recognized as safe" (GRAS) or ingredients that are approved food and color additives. If scientific data show that an ingredient or additive presents a health risk to animals, CVM can prohibit or modify its use in pet food.

Pet food ingredients must be listed on the label in descending order by weight. However, the weight includes the moisture in the ingredient, which makes it tricky to interpret. "A moist ingredient, such as chicken, which may be 70 percent water, may be listed ahead of a dry ingredient, such as soybean meal, which is only 10 percent water—yet the soy actually contributes more solids to the diet," says Susan Dosoghu, V.M.D., owner of Nutrition Support Services, Inc.

Irradiation of Pet Food
In April, the FDA approved an irradiation process that can be used on all animal feed and feed ingredients, including pet food and treats. This process can reduce the risk of contamination from all strains of Salmonella bacteria. Salmonella organisms can cause gastrointestinal upset and diarrhea in people and pets.

Irradiation, which causes chemical changes, is already approved for use on a variety of human foods. Extending this process to pet and other animal foods will increase the safety of the food for both the animals consuming it and the people handling it.

—L.B.
No evidence of bovine spongiform encephalopathy (BSE), commonly known as “Mad Cow Disease,” ever has been detected in horses, dogs, and other pets, such as birds, reptiles, and gerbils. However, a feline version of BSE, first identified in 1989, has been documented in domestic cats in Europe, mostly in the United Kingdom, according to the U.K.’s Ministry of Agriculture, Fisheries and Food.

No cases of BSE or similar forms of the disease in cats, cows, or humans ever have been found in the United States. “The same precautions that the U.S. government is taking to keep BSE out of this country’s cattle are also protecting our pets,” says William Burkholder, D.V.M., Ph.D., the FDA’s pet food specialist.

Scientists believe BSE is transmitted through animal feed containing certain animal proteins that may harbor the BSE agent. Since 1991, the United States has banned the import of animal foods, including pet food, containing ruminant (such as cattle or sheep) materials from countries with BSE. In 1997, the United States extended the ban to most of Europe.

In December 2000, the U.S. banned imports of animal proteins—from any species—from 31 countries that either are known to have BSE in their cattle herds or are considered at high risk for having it. This means that no meat-containing pet food can legally be imported from a country at risk for BSE.

—L.B.

and past president of the American Academy of Veterinary Nutrition.

Similar materials listed as separate ingredients may outweigh other ingredients that precede them on the list of ingredients. For example, chicken may be listed as the first ingredient, then wheat flour, ground wheat, and wheat middlings. The consumer may believe that chicken is the predominant ingredient, but the three wheat products—when added together—may weigh more than the chicken.

Dietary Supplements
Just as dietary supplements for people are growing in popularity, so are animal food supplements for pets. “Many people treat their dogs and cats like replacement children,” says Jennifer Kvanne, D.V.M., associate editor of Petfood Industry magazine. “They want the best for them, and want to give them the types of food and supplements that they would eat themselves.”

The FDA considers animal food supplements that are not approved nutrients or GRAS to be unapproved food additives or unapproved new animal drugs. As such, they are not permitted in pet food. Nevertheless, consumers will see on some cat and dog food labels ingredients such as glucosamine and chondroitin, which are claimed to alleviate joint stiffness and pain, and St. John’s wort, purported to treat depression and relieve stress.

Neither the FDA nor state feed control officials have the number of employees required to monitor every supplement and food manufacturer and prevent those using unapproved ingredients from selling their products, says Burkholder. “It’s a matter of profit incentive versus likelihood of getting caught. The same forces apply for why police cannot write speeding tickets to everyone driving over the speed limit. That doesn’t make speeding legal.”

Burkholder cautions people to check with their veterinarians before giving their pets supplements, whether alone or in a food product. “Many persons do not appreciate that dogs and cats are not small furry people. They often think that a supplement that they may take themselves is good for their pet, but that may not be the case.”

Table Scraps May Be Dangerous
Some people think a food that they cat is good for their pets. Not true. Some human foods, in fact, may be dangerous
to pets. “Most pet owners simply do not know that small amounts of chocolate, onions, macadamia nuts and bread dough can be fatal if ingested by a dog,” says Steve Hansen, D.V.M., senior vice president of the ASPCA Animal Poison Control Center. “And cats, in particular, have a body chemistry quite different from ours,” and so are susceptible to poisoning from a number of human foods.

Also because of their different body chemistry and nutritional requirements, cats should not be fed dog food, says Burkholder.

Feeding Guidelines

Feeding directions on pet food provide only a broad guideline. Nutritional requirements vary according to a pet’s age, breed, body weight, genetics, amount of activity, and even the climate in which the pet lives.

Many owners are guilty of overfeeding their pets, and even a “light” food can cause weight gain if fed in excess of caloric needs. “It’s estimated that about 25 percent of dogs and cats that enter a pet clinic are overweight,” says Burkholder. Obesity can shorten a pet’s life by contributing to heart and liver problems, diabetes, arthritis, bladder cancer, and skin disorders and it can put a pet at higher risk while undergoing anesthesia and surgery. Pet owners should consult their veterinarians for the appropriate amount and type of food to give their pets, especially those that are overweight.

A pet food can claim to be “light” or “lean” only if it meets AAFCO’s standard definitions for these terms. These definitions differ for dog and cat food and also depend on the moisture content of the food. The words “light,” “lite” and “low calorie” all have the same meaning.

The words “lean” and “low fat” also mean the same. But “less calories” and “reduced calories” mean only that the product has fewer calories than another product, and “less fat” and “reduced fat” mean the product is less fatty than another one. In both cases, the manufacturer must state on the label the percentage of reduction and the product of comparison.

Most pet food labels do not provide caloric content, but consumers can get this information by contacting the manufacturer, whose location must be on the label. Many manufacturers provide a toll-free number for consumers as well as their Web site address.

When a ‘Food’ is a ‘Drug’

Statements that a product can treat, prevent or reduce the risk of a disease are considered drug claims and are not allowed on pet food. CVM also disallows claims such as “improves skin and coat,” “prevents dry skin,” and “hypoallergenic.” Consumers may see phrases such as “promotes healthy skin” and “promotes glossy coat.” CVM permits these claims, but any healthy animal that gets adequate nutrition should have these qualities anyway without eating a special food.

Recognizing the close link between diet and disease, CVM does allow certain health-related information on labels to help consumers evaluate pet foods. For example, while a product cannot claim to treat feline lower urinary tract disease, a concern for some cat owners, it may make the claim that the food “reduces urine pH to help maintain urinary tract health,” provided data generated by the manufacturer and reviewed by CVM support the statement.

CVM permits some dental claims on pet foods. The jaw movement of animals as they chew on certain foods or treats, or some chemicals in foods, can help reduce plaque and tartar, so CVM allows claims such as “helps control plaque” and “helps control tartar.” CVM does not allow claims to treat or prevent gingivitis or periodontal disease because these are drug claims.

Pet owners may see claims such as “improves doggie breath” on pet food or treats. These claims have no regulatory meaning; manufacturers use them simply to promote their products.

The phrase “recommended by veterinarians” also has no regulatory meaning, says Rodney Noel, Ph.D., AAFCO’s pet food committee chair and a chemist at Purdue University. “There is no minimum number or percentage of veterinarians required for a company to be able to state its product is recommended by vets,” Noel says.

CVM provides manufacturers some latitude in making health claims regarding a category of food known as veterinary medical foods, which consumers can obtain only through a veterinarian. Manufacturers design these foods to treat a particular disease or condition. Although not regulated as drugs, these foods may carry health information in promotional materials for the veterinarian to help them treat their patients correctly.

For additional regulatory information on pet food and labeling, call CVM at 301-594-1755 or visit www.fda.gov/cvm.

Making Sense of ‘Light’ and ‘Lean’ in Pet Food

The calorie and fat contents listed below are the maximum limits allowed in dog and cat food labeled “light” or “lean.” These definitions are established by the Association of American Feed Control Officials and authorized by the FDA. Comparisons between products in different categories of moisture content are considered misleading.

<table>
<thead>
<tr>
<th>Dry Foods (&lt; 20 percent moisture)</th>
<th>Semi-moist Foods (20–65 percent moisture)</th>
<th>Moist Foods (&gt; 65 percent moisture)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light, lite or low calorie</td>
<td></td>
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</tr>
<tr>
<td>Dogs: 1,409 calories per pound</td>
<td>Dogs: 1,136 calories per pound</td>
<td>Dogs: 409 calories per pound</td>
</tr>
<tr>
<td>Cats: 1,477 calories per pound</td>
<td>Cats: 1,205 calories per pound</td>
<td>Cats: 432 calories per pound</td>
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<tr>
<td>Lean or low fat</td>
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</tr>
<tr>
<td>Dogs: 7 percent fat</td>
<td>Cats: 8 percent fat</td>
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<tr>
<td>Cats: 10 percent fat</td>
<td>Cats: 5 percent fat</td>
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