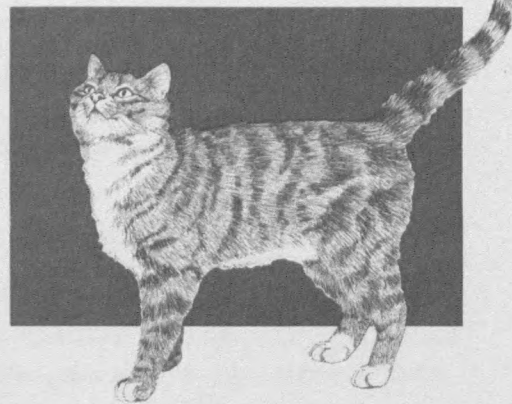


Perspectives On Cats

A Newsletter for Cat Fanciers
From The Cornell Feline Health Center

Fall 1990



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Consumer Issues

Editor's Note: The following was excerpted from presentations given during the Feline Seminar for veterinarians at Cornell University in August. The information provided is intended to help you make informed decisions on cat care products, and is not an endorsement by the Cornell Feline Health Center for any commercial product.

Pet Foods

Presented by Dr. Francis Kallfelz, clinical nutritionist,
Cornell University

Marketing of cat food is based on several product concepts which appeal to the consumer. Purchase of a product may be a result of the product's purpose (i.e. all-purpose or for different stages of life), price,

resembles "people" food, flavor, presence or absence of an ingredient, analytical content, product name, and nutritional need. (Next time you purchase cat food try to figure which product concept the manufacturer is using to make you select their brand over another.)

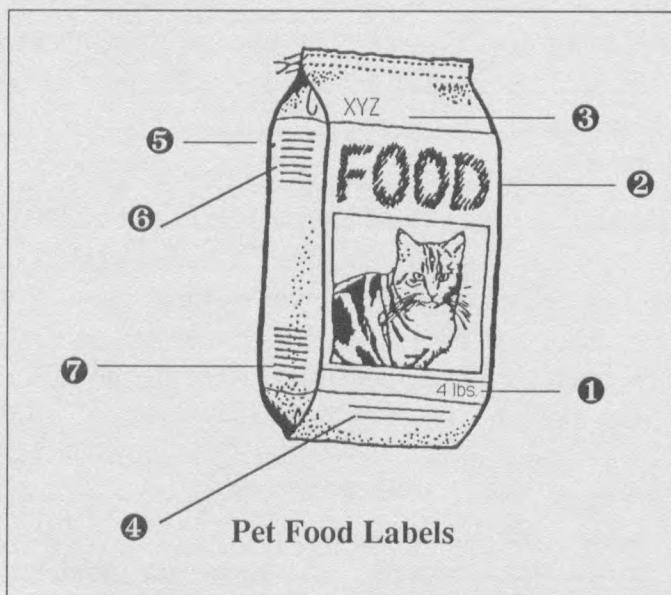
Pet food labels are required by law to contain basic information (see insert *Pet Food Labels*). This information can assist you when selecting a cat food. When deciphering labels you should know that "flavored" cat food is not required to have the real food in it such as fish or cheese, only the flavor. Cat foods that use "dinner" on their label, such as Seafood Dinner, must contain 25 percent of the item listed on the label. "Meat-by-products" means that the food contains nonskeletal muscle parts of cattle, swine, sheep or goats, with the exclusion of horn, hoof, hair and hide. "Poultry digest" contains the remnants of poultry (i.e. guts, intestines) which are fermented in a vat. The fermentation is stopped with the addition of hydrochloric acid. Although the process sounds repulsive, the end product helps to acidify a cat's diet which aids in the prevention of feline urologic syndrome (FUS). Also, cats prefer acid diets. "Meat meal product" means that any body part can be included in the product, except for feathers.

Some people are concerned that preservatives in cat food pose a health risk to their cats. In particular, the additive *ethoxyquin* has caused much controversy. There is no scientific evidence that this chemical is harmful. Rather it has been shown to be an effective

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antioxidant. This concern has created a whole new market for pet foods—*natural pet foods*. The primary difference between regular cat foods and natural is the absence of preservatives in the natural foods. It has been shown that the lack of a fat preservative in a cat diet is detrimental because fat will oxidize, possibly resulting in a serious disease known as steatitis. Many of the “natural” ingredients, such as kelp, have not been studied to determine if there are any related health hazards to the cat. A cost comparison shows that natural cat foods are about one-third higher in price than the regular commercial foods.



Pet Food Labels

1. Net weight
2. Product name
3. Manufacturer's name
4. Nutritional guarantee and validation claim (The claim must be derived from one of the following methods: estimation from listed values, laboratory analysis, or passing feeding trials of the Association of American Feed Control Officials [AAFCO].)
5. Guaranteed analysis (The analysis is required to list the minimum percentages of crude protein and fat, and the maximum percentages of fiber and moisture.)
6. Ingredient panel (Ingredients are listed in descending order of concentration.)
7. Feeding directions

Flea Control Products

Presented by Dr. Susan E. Wade, parasitologist, Cornell University

An effective flea control program requires treating the environment (indoors and outdoors) and the animal at the same time.

When treating the environment you should concentrate on the cat's sleeping areas and any secluded areas where immature fleas may be lodged. Vacuuming and mopping floors before treatment helps eliminate many of the immature stages of fleas indoors. Steam cleaning carpets kills flea eggs. Removing organic debris outdoors makes spraying or dusting more effective. Treating every two to four weeks under house porches is rec-

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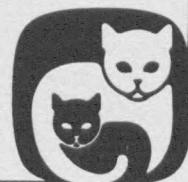
A Newsletter for Cat Fanciers
From The Cornell Feline Health Center

The ultimate purpose of the Cornell Feline Health Center is to improve the health of cats everywhere, by developing methods to prevent or cure feline diseases, and by providing continuing education to veterinarians and cat owners. All contributions are tax-deductible.

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ommended. In the northern part of the United States freezing temperatures kill fleas outdoors during the winter.

Chemical control of fleas is currently a multimillion dollar business. Several different groups of chemicals — organophosphates, carbamates, chlorinated hydrocarbons, and botanicals (i.e. pyrethrin and methoprene) are used in flea products. Those products are sold in different formulations, including shampoos, dips, powders, dusts, sprays, foams, foggers and collars. There may be regional resistance to some insecticides which should be considered when selecting a flea product. For example, in New York it appears that fleas are becoming resistant to carbaryl. Products used should provide a quick kill of the flea population, but also provide residual coverage to prevent immature fleas from developing into adult fleas. Chemicals in one formulation may give only a quick kill, but if they have been microencapsulated or synergized, they will have a residual effect lasting for several weeks. Some chemicals are quickly broken down by ultraviolet light, so even though they are very effective indoors, they are not useful for treating the outdoor environment. *Therefore, reading and understanding the labels on different products is crucial.* It has been recommended that products containing different chemicals be used to avoid problems with toxicity and/or resistance.

Several chemicals currently on the market are contraindicated for use on cats. Organophosphates are not to be used except for malathion and phosmet. Not all permethrin (pyrethroid) formulations have been approved for use on cats. Dips with permethrin have been reported to cause deaths. Carbamate powders should not exceed a concentration of 5 percent for cats and 2.5 percent on kittens not less than 8 weeks old. Rotenone should not be used on kittens less than four weeks of age. Lindane is toxic to cats, and therefore should not be used.

Because many people prefer not to use chemical flea control, many “natural” flea products are currently available. Shampoos, sprays, and collars are sold which contain oils of pennyroyal, sassafras, cedarwood and eucalyptus. Ultrasonic flea collars, and feeding garlic or brewer’s yeast have been purported to repel fleas. However, no scientific data supports these claims. In fact, brewer’s yeast is used to feed flea larva in the laboratory.

Mechanical methods of eliminating fleas can be helpful. Flea combs are designed to remove adult fleas from the cat’s hair coat. In breeding colonies wire cages should be a minimum of 10 inches above the floor. Height acts a physical barrier since fleas are capable of jumping a distance of several inches.

Future directions for flea control will focus on using biorational insecticides. Insect growth regulators including inhibitors of cuticle formation are being examined. These will have a low risk factor for cats.

Deodorizers

*Presented by Dr. David K. Rosen, feline practitioner,
Park Pet Hospital*

Deodorizers are difficult to evaluate because ingredients are not listed on the label and each person has a different threshold in sensing odors. For example, people with Addison’s disease have a more acute sense of smell. Deodorizers were designed to eliminate odors which are offensive to people, rather than for the cat’s benefit.

Deodorizers can neutralize odors by oxidation (i.e. chlorine bleach), or decompose odor by use of enzymes, or change a compound from being odiferous to no detectable odor (polymerization), or simply mask the original odor with another odor which is more pleasant (i.e. mouthwash, soaps, deodorants). There are several household products which can help eliminate odors, such as chlorine, baking soda and vinegar (50 percent

strength). Also, several commercial products have been designed to eliminate odors (i.e. Elim-odor, F.O.N., X.O. Liquizyme). The most recent concept in eliminating odors is the addition of a chemical to cat food to eliminate odors. Current research indicates that fecal odors are reduced, but it does not affect urine odors.

The following are helpful hints when eliminating cat odors:

1. Chlorine neutralizes and disinfects litter boxes. Use a dilution of 4 ounces of chlorine to 1 gallon of water.
2. Do not use Lysol for disinfecting litter boxes. The chemicals are toxic to cats.
3. Treat urine stained carpets immediately with a deodorizer and cleaning solution. If the padding

underneath also is soiled, it must be removed if the treatment is to be effective. If the stain occurs on concrete, clean the surface and then apply a sealer to the concrete.

Litter Products

Presented by Dr. Mark A. Finke, director of nutrition, Alpo Pet Foods

Selecting litter for your cat can be as confusing as selecting a cat food. The market place offers many different types — white clay, regular clay, natural clay, bentonite clay, pelleted alfalfa, and gel type litter that clumps when wet. Each year Alpo uses truckloads of litter for their cats, and because of this we did some basic studies on cat litter. The criteria we selected were dust level, absorbency, odor control,

Briefly ...

Feline Health Center Has Exhibit at State Fair

During the last week in August through Labor Day weekend, the Cornell Feline Health Center was an exhibitor at the New York State Fair in Syracuse, New York. This event provided an opportunity for staff to meet the general public and explain the resources available from the Center for cat owners and breeders. The exhibit was located in the DVM building, where the public had the opportunity to observe spay and neuter surgeries

Staff Changes

Phyllis Dague, office secretary, resigned in August to accept a secretarial position in the department of veterinary microbiology, immunology and parasitology. **Gwen Frost**, formerly the membership secretary, has been promoted to the position of office manager for the *Dr. Louis J. Camuti Memorial Feline Consultation and Diagnostic Service*. She coordinates incoming calls for the program by directing them to the feline extension veterinarian; answers consultation letters; and fulfills requests for information. **Sheryl Thomas** has taken over the responsibilities of the Memorial Program.



during the day. Veterinarians and animal health technicians volunteered their time and talents to perform the surgeries.

particle size, and general acceptance by the cats. The results from these studies are summarized in Table 1.

An analytical study demonstrated that the clay litters contain no solvents or pesticides. Only a trace

of heavy metals could be detected. Clay litters contain 86 to 90 percent ash. The clay litters are the least expensive to purchase.

Table 1. Comparison of Litter Products

Litter Type	Particle Size/* Dust Level	Absorbency** g/1000 cm ³	Odor Control	Comments
White Clay	Excellent/7%	480	Negligible	Good particle size and density helps to keep it in the litter box. Cats use it, but odor control is limited. Very dusty.
Regular Clay	Excellent/2% dust	320	Negligible	Good particle size and density Acceptable to cats although odor control is limited. Little dust. Wet litter clings to pan making clean up more difficult.
Natural Clay	Excellent/<1% dust	460	Acceptable	Good particle size and density. Acceptable to cats with very little dust. Retains its form when wet which facilitates clean up.
Bentonite Clay	Fine/2% dust	1140	Good	Small particle size but also very dense. Some litter is kicked out by the cat. Forms sturdy clumps when wet and absorbs a large amount of liquid. Acceptable to the cat.
Gel	Fine/1% dust	840	Good	Very small particle size and is light. Litter is easily kicked out of the box. Forms clumps when wet, but breaks apart when dry. Well accepted by the cat.
Alfalfa pellets	Excellent/1% dust	450	Acceptable	Good particle size and density. Falls apart when wet making clean up difficult. Not acceptable to all cats.

* Determined by sifting litter through sieves.

** Absorbency based on volume. Higher values indicate greater absorbency.



Q. My 15-year-old Siamese cat has infiltrated bowel disease. My veterinarian has her on 5 mg. of prednisone daily, chicken baby food plus rice, and Felovite. I would like to know if there is a catfood that would be appropriate. Also, if you could explain this disease, I would be grateful. — L.A., New Jersey

A. Inflammatory bowel diseases of cats are a group of chronic disorders that are characterized by infiltration of the intestinal mucosa and sometimes deeper layers of the bowel wall with inflammatory cells. The disorders are classified on the basis of the predominant infiltrating cells such as eosinophilic, lymphocytic-plasmacytic, or granulomatous. In some cases, a mixture of these cell types makes specific classification impossible. Another diagnostic complication is that the infiltrating lesion may involve the stomach, colon and small intestine. Therefore, accurate diagnosis depends on biopsy of the lesion in the intestinal wall or stomach.

Cats that have any one or combination of the chronic diarrhea producing intestinal lesions may also have vomiting and weight loss. The cause of these diseases has not yet been determined, however, they are usually responsive to treatment with anti-inflammatory drugs (i.e. glucocorticoids). Clinical response is usually prompt with signs generally subsiding within 3 to 5 days. Most cats with severe cases must be continued on medication for the remainder of their lives. Diet changes to lamb and rice, horse meat or Hills Prescription Diet c/d are often helpful in the long term management.

Q. When I was in school and ever since I have been under the impression that a calico cat is always a female since it is a sex-linked color gene. Now a veterinary student has told me that where she goes to

school they see two or three male calicos a year. Can this be true? — E.F., New Jersey

A. While most calico cats are female, the occurrence of male calicos is by no means a rarity. Often male calicos are not able to reproduce, yet a number of tri-color male cats have sired litters.

The calico color in cats is associated with the sex chromosomes. It requires two X chromosomes to be expressed. Normally the female has two Xs (represented by XX) and the male has one X and one Y (represented by XY). Obviously, then, under normal circumstances, the male is not capable of expressing the calico color. However, certain male cats have an abnormal makeup (XXY), and these can exhibit three colors.



If you would like to have a question on cat health answered in this column, please write to:

*Cornell Feline Health Center
POC/Mail Bag
College of Veterinary Medicine
Ithaca, NY 14853-6401*

Honor Roll

Since the Center does not receive financial support directly from the state, college, or university, private contributions are vitally important to the Center. Therefore, we gratefully acknowledge the generosity of the following individuals who have contributed \$100 or more to support our programs. We also wish to thank those individuals who have also contributed, but who are not listed on the honor roll.

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Colorado: Foot of the Rockies Cat Club, Inc.
Maryland: Freestate Feline Fanciers
New York: Genesee Cat Fanciers
Virginia: Feline Alliance of Tidewater Metro Cats

Basic Feline Health Care

Even though the official month for *Cat Health* is now past, it is not too late to give your cat proper health care. If your cat has not had its annual visit to the veterinarian, make an appointment this week. Before the scheduled appointment collect a fecal sample so your cat can be checked for the presence of internal parasites (tapeworms, roundworms, hookworms).

During the physical exam your veterinarian will check your cat's vital signs (pulse, respiration, and temperature); look at its general physical condition; check its eyes, ears and teeth; and examine its body for any unusual bumps or growths. At this time your cat will receive its booster vaccines for panleukopenia, viral rhinotracheitis, calicivirus, and pneumonitis. The rabies vaccine is repeated one year after the first vaccination, then every three years or every year depending on the vaccine used. Also, if your cat has been vaccinated against feline leukemia it should receive an annual booster.

If your cat displays any of the following signs of illness, take your cat to the veterinarian immediately:

- ❶ Weight loss
- ❷ Vomiting
- ❸ Refusal to eat
- ❹ Persistent diarrhea, constipation, blood in stool
- ❺ Runny eyes and nose, sneezing
- ❻ Constant scratching
- ❼ Peculiar behavior, excessive crying, unusually bad temper
- ❽ Loss of balance
- ❾ Listlessness



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