

# The Right Stuff

*How to identify the healthiest dry dog foods on the market.*

BY NANCY KERNS

Last month, in “A Super (But Secret) Industry,” I discussed the difficulty of getting into a factory where wet pet food is made – a task I have not yet managed to accomplish. Happily, I have been able to tour a few facilities that manufacture dog treats and dry food. This hasn’t resulted in any huge surprises to me, but sure helped me understand the many challenges facing manufacturers who want to produce the very best dog food possible.

As we have described in our annual food reviews since 1998, this task starts with top-quality ingredients. To mix a metaphor, you really *can’t* make a silk purse out of sows’ ears, chicken heads, bovine tumors, restaurant grease, rendered fat from animals that died on farms, and cheap grain by-products

left over from the human food manufacturing industry. Many people say, “Oh, for goodness’ sakes, they are just dogs! Why can’t they eat guts and stuff?” Well, they *can*, of course, and most dogs *do!* The vast majority of pet food produced in this country is made with what we would consider to be poor-quality ingredients.

For optimal health, every credible *human* nutrition expert in the world advocates eating a balanced varied diet of a varying menu of fresh, top-quality foods. There is no biological reason to expect dogs (or any other animal) to be any different. Pet bird experts now realize that an all-seed diet is unbalanced and inadequate for avian health; birds also need access to fresh plant material (fruits, vegetables, green foods such as sprouts, etc.) to thrive. People who keep rabbits as pets now know that alfalfa pellets alone don’t sustain rabbits as well as a diet that includes a variety of fresh hay, root vegetables, and green, leafy vegetables.

Dogs are just the same. A balanced, home-prepared diet of a variety of fresh, healthy ingredients is optimum; a commercial diet made with the same ingredients is leagues better than a commercial diet made with cheap fats discarded from restaurants, inexpensive carbohydrates produced as waste from the brewing industry, and plant proteins such as corn gluten meal (animal proteins have a much more complete amino acid profile than plant proteins).

Of course, the best ingredients cost a lot, and a reliable supply may be difficult to find. Pet food makers who are committed to producing foods for the top end of the market have to continually hunt for ingredients that meet their standards – and be prepared to reject shipments that fail to pass their inspection.

We strongly believe that ingredient



**Choosing a food for your dog can be daunting. Don’t stress! Just read the labels, choose one, and see how your dog responds. If his response is poor, try another. There are many top-quality foods available today.**

quality is *the* key to a dog food’s quality, as well as the criterion that is easiest for the average consumer to judge, based on a simple review of the ingredients listed on the label. See “WDJ’s Dry Dog Food Selection Criteria,” page 4, for a detailed description of what is desirable and what is best avoided when scrutinizing the ingredients’ panel on your favorite dog foods.

## Good manufacturing practices

Ingredients aren’t the *whole* story, of course. A company that spends the lion’s share of its budget on the ingredients for its foods, but, as one example, expends few resources on laboratory testing to confirm the product meets its label guarantees, may cause the food to flunk inspection by state feed control officials and stop its sale.

Tough standards (and top compensation) for employees, good employee management, superior packaging, proper storage, reliable transportation, smart marketing, education of sales staff at retail locations, knowledgeable and responsive customer service and support . . . these are all areas where a company needs to shine to garner the long-term support of consumers who

The Whole  Dog Journal™

### WHAT YOU CAN DO . . .

- Look for foods containing whole meats, vegetables, and grains.
- Remember that the more ingredients a food contains (barring the vitamins and minerals), the less of each ingredient the food contains!
- Expect to pay dearly for quality.
- Buy foods that suit your dog. If one of our favorite foods make your dog break out in hives, stop feeding it to him!
- Stop feeding any food if your dog exhibits signs of illness; get him to a vet, and contact the maker with the date-code from the bag.

will pay top dollar for top-shelf products.

Manufacturers who neglect even one of these areas are just asking for trouble. If your plant employees don't read well or communicate well with their supervisors and coworkers, they may fail to properly inspect a load of corn that arrives at the plant, allowing toxin-laden grain into production (see "Yes, Dog Food Can Kill," page 8); or accidentally contaminate production equipment with an improperly diluted cleaning agent; or add a dangerously high amount of the mineral supplement to a batch of food, which can cause a life-threatening overdose in exposed dogs.

Most hazards to the wholesomeness of a pet food can be controlled through rigorous planning and management. However, a company must have the resources and commitment to expend those resources to continuously maintain vigilance over the product management from ingredient purchasing to consumer support.

Consumers have few resources available to determine whether dog food makers have "the right stuff" in these areas. In our opinion, one of the best indicators of a company's commitment to quality is reflected in its ability to respond quickly and intelligently to consumer questions and concerns. Noncompulsory manufacturing certifications (such as the ones described in "Further Attributes of a Top-Quality Food" on the next page), are another way a company can unequivocally demonstrate its commitment to quality.

## Compare for yourself!

On pages 76 and 7, we've listed some dry dog foods that meet our selection criteria. It's vitally important that you understand the following points regarding these foods:

■ *The foods on our list are not the only good foods on the market. Plus, we've named just one variety in each line by each maker. Usually, all the other varieties in a given line also meet our criteria.*

■ *Any food that you find that meets our selection criteria (see "WDJ's Dry Dog Food Selection Criteria," above right), is just as good as any of the foods on our list.*

■ *We have presented the foods on our list alphabetically. We do not "rank order" foods. We don't attempt to identify which ones are "best," because what's "best" for every dog is different.*

## WDJ's Dry Dog Food Selection Criteria

- **We look for foods that contain a lot of high-quality animal proteins.** We would love manufacturers to disclose the approximate percentage of meat, poultry, or fish in their food, but they rarely do, so we look for foods that *appear* to have lots of animal protein. Ingredients are listed in order of their weight, so ideally a food will have one or two animal proteins in the first few ingredients. Understand that whole meat (chicken, beef, lamb, etc.) contains a lot of water weight. If a food list starts out with chicken, and there is no other animal protein listed until 7th or 8th on the list, the food does *not* actually contain a lot of animal protein. But if it starts out with chicken, and chicken (or another animal) "meal" (essentially dehydrated chicken) is number two or three on the list, chances are the product contains an admirable amount of animal protein. Animal proteins tend to be more digestible and palatable than plant proteins and offer a wider array of essential and nonessential amino acids.

- **We reject any food containing meat by-products or poultry by-products.** It's just about impossible to ascertain the quality of by-products used by a food manufacturer. We've spoken to representatives who swore they used only the finest sources of by-products, but when asked, they *all* say that! The fact is, there is a much wider range of quality in the by-products available for pet food manufacturing than there is for whole meats. Whole meats are expensive, and because they are expensive, dog food makers insist on their quality to an extent that is unreasonable when buying bargain-basement by-products. So, because the quality cannot be confirmed, we advise that you just avoid foods that contain by-products. **NOTE:** Some of our past selections do contain meat and/or poultry by-products. To winnow down our list to the very best foods possible, we no longer select products that contain meat or poultry by-products.

- **We reject foods containing fat or protein not identified by species.** "Animal fat" is a euphemism for a low-quality, low-priced mix of fats of uncertain origin. "Meat meal" could be practically anything.

- **We look for the use of whole grains and vegetables.** That said, some grains and vegetables have valuable constituents that accomplish specific tasks in a dog food formula. We don't think it's worth getting too excited about one vegetable fragment and one grain by-product on the ingredients panel. Our tolerance diminishes in direct proportion to the *number* of fragments and by-products contained in a food and the prominence on a label; the more there are, and/or the higher they appear on the ingredients list, the lower-quality the food.

- **We eliminate all foods with artificial colors, flavors, or preservatives** listed on their ingredients panels. **NOTE:** Some ingredients – usually fats, and some fish products – arrive at the pet food factory containing artificial preservatives; these do not have to be disclosed on the ingredient list, since the maker did not add them.

- **We eliminate all foods with added sweeteners.** Dogs, like people, enjoy sweet foods. Like people, they can develop a taste for these nutritionally empty calories.

■ *The proof is in the pudding. If your dog does not thrive on the food, with a glossy coat, itch-free skin, bright eyes, clear ears, and a happy, alert demeanor, it doesn't matter whether we like it or not.*

Using the selection criteria outlined above, and perhaps taking into account some of the "extra credit" criteria listed on the next page, go analyze the food you currently feed your

dog. If it doesn't measure up, choose a new food based on quality, and what works best for you and your dog in terms of types of ingredients, levels of protein and fat, local availability and price. Then, try it and see how it suits *your* dog.

Our list of Approved "Top Dry Dog Foods" on pages 6 and 7 is offered as a starting place, and for its value as a comparison to other products you may find.

## Further Attributes of Top-Quality Dog Food

Last month, in our review “Top Approved Wet Dog Foods,” we listed features that we consider to be highly desirable characteristics in a pet food. We don’t require these traits in order to put a product on our “list. But the more of these attributes a food has the better! We explained each item fully last month, with the exception of the final item on this list, which applies more to dry dog foods than to wet foods.

We like to see:

- **A date-code or production code is easy to find, read, and interpret.**
- **More than just the required nutrients (fat, protein, fiber, moisture) listed on a product label’s “guaranteed analysis” (GA).**
- **The caloric content of the food listed on the label.**
- **All of the food maker’s contact information listed on its product labels (and their product literature and Web sites).**
- **A statement that a food (or one of its close “family members”) has passed an AAFCO feeding trial.**
- **Certified organic ingredients.**
- In addition, we admire manufacturers that have pursued and obtained **noncompulsory manufacturing certifications, including:**

**AIB certification.** The American Institute of Baking (AIB) is a nonprofit educational foundation that offers the most comprehensive and well-accepted standards and inspection for good manufacturing practices in grain-based food production, including pet food production.

Manufacturers pay for the voluntary inspection of their plants and their program documentation. The inspection results in a score from 0 to 1,000; if the score is 800 or higher, the inspected facility receives a certificate of achievement or recognition. A

score of 900 or more receives a “Superior” rating; a score of 800 to 899 receives a rating of “Excellent,” and a score of 700 to 799 receives a “Satisfactory” rating. Current and/or subsequent high AIB ratings confirm a manufacturer’s commitment to excellence.

**APHIS registration.** A company that alleges to use top quality meat sources (sometimes claimed as “human quality,” though no such legal definition for this term exists) in its products should be able to prove it with registration numbers for all its meat suppliers from the United States Department of Agriculture’s Animal and Plant Health Inspection Service (USDA APHIS).

**ISO 9001:2000 rating.** The International Organization for Standardization (ISO, and yes, that’s the order in which they put their initials) is a nongovernmental organization that promotes quality and standardization in management as a tool for improving any entity that supplies a product or service. The ISO standard that can be applied to the production of pet food is called ISO 9001:2000. The process of readying a company to qualify for an ISO 9001:2000 rating is expensive, time-consuming, and perhaps only worth the effort to a fairly sizeable company.

**Organic certification.** In 2002, the United States Department of Agriculture (USDA) National Organic Program (NOP) created a seal (and accompanying rules to govern its use) that qualifying pet food makers could put on their products to indicate they were made with organic ingredients in a plant that passed a rigorous inspection by a organics program certifying agency. In 2004, the USDA attempted to disallow pet food makers to represent their products as being in certified compliance with USDA’s NOP standards, because pet foods were not regulated by the USDA in the first place. (The regulation of pet food production is conducted by states.) The USDA backed down in mid-2005, allowing pet food producers who met the requirements to continue carrying the organic seal, but appointed an ad hoc task force committee to develop organic labeling standards tailored for pet food.

We are hopeful that a strong federal organic program will be restored and strengthened to help consumers choose foods made in the cleanest, poison-free production facilities available.

## Puppy, Adult, Active, Senior, Lite . . . Does It Make a Difference?

When a pet food maker offers 5 or 20 varieties of its dog food, how do you choose one for *your* dog? Does he *have* to eat a “senior” formula now that you have celebrated his seventh birthday? Must you buy “small bites” if your dog is tiny? Is feeding “lite” food better than feeding a smaller amount of regular food?

Sorry; there are no uniform answers to these questions. You must read the labels to determine how the products differ, and to guess whether the differences are significant enough to warrant buying something other than the regular “adult” variety.

Grab the adult variety and whichever other variety you are considering. First, compare the ingredients lists and the guaranteed analyses of the two products. You may be surprised to learn that frequently there is *no* difference some varieties, just the

marketing approaches. For example, Nutro Max Adult Dog Food is identical in ingredients and levels of protein, fat, moisture, and ash to Nutro Max Natural and Nutro Max Mini Chunk – although the kibble size of the latter *is* smaller.

Also, compare the amounts of fat and protein in different foods. The amount of fat in a “lite” food can vary between makers; the amount of protein in “senior” formulations can also differ markedly. Ask your vet to suggest target fat and protein levels for *your* dog, and look for a food that meets those targets, regardless of what type of dog for which it is ostensibly formulated.



# WDJ'S 2006 TOP APPROVED DRY DOG FOODS

FOODS THAT ARE NEW TO THE LIST  
APPEAR IN GREY BOXES

MAKER, CONTACT INFO	SAMPLE VARIETY, FIRST 6 INGREDIENTS, MIN % PROTEIN, FAT; MAX % FIBER, MOISTURE	MAKER, CONTACT INFO	SAMPLE VARIETY, FIRST 6 INGREDIENTS, MIN % PROTEIN, FAT; MAX % FIBER, MOISTURE
<b>Artemis</b> Artemis Pet Foods Canoga Park, CA (800) 282-5876 artemispetfood.com	<b>Power Formula:</b> Chicken meal, white rice, chicken fat, lamb meal, dried beet pulp, ground brown rice . . .  30% protein; 20% fat; 4% fiber; 10% moisture	<b>Drs. Foster &amp; Smith</b> Drs. Foster & Smith Rhineland, WI (800) 826-7206 drsfostersmith.com	<b>Lamb Formula:</b> Lamb meal, lamb, brown rice, barley, rice, rice bran . . .  21% protein; 11% fat; 3.5% fiber; 10% moisture
<b>Azmira</b> Azmira Holistic Animal Care Tucson, AZ (800) 497-5665 azmira.com	<b>Classic Formula:</b> Beef meal, whole ground barley, oatmeal, whole ground grain sorghum, flax seed, canola oil . . .  22% protein; 8% fat; 4% fiber; 10% moisture	<b>Eagle Pack Holistic Select</b> Eagle Pet Products, Inc. Mishawaka, IN (800) 255-5959 eaglepack.com	<b>Fish &amp; Oatmeal Formula:</b> Anchovy meal, sardine meal, salmon meal, oatmeal, ground brown rice, pearled barley . . .  22% protein; 12% fat; 3.9% fiber; 10% moisture
<b>Back to Basics</b> Beowulf Natural Foods Syracuse, NY (800) 219-2558 beowulfs.com	<b>Chicken Formula:</b> Chicken meal, ground corn, chicken fat, oatmeal, brown rice, dried tomato pomace . . .  23% protein; 19% fat; 4% fiber; 10% moisture	<b>Evolve</b> Triumph Pet Industries Inc. Warwick, NY (800) 331-5144 evolvepet.com	<b>Maintenance Formula:</b> Lamb, chicken meal, brown rice, ground white rice, chicken fat, rice bran . . .  25% protein; 15% fat; 5.5% fiber; 10% moisture
<b>Bench &amp; Field Holistic Natural Canine</b> Bench & Field Pet Foods Mishawaka, IN (800) 525-4802 benchandfield.com	<b>Chicken Formula:</b> Chicken meal, ground brown rice, whole ground barley, fish meal, chicken, chicken fat . . .  24% protein; 15% fat; 4% fiber; 10% moisture	<b>Firstmate Dog Food</b> Taplow Feeds North Vancouver, BC (604) 985-3032 firstmate.com	<b>Platinum Plus Formula:</b> Chicken, chicken meal, whole ground brown rice, pearled barley, organic spelt, whole steamed potatoes . . .  25% protein; 15% fat; 4% fiber; 10% moisture
<b>Blue Buffalo</b> The Blue Buffalo Company Wilton, CT (800) 919-2833 bluebuff.com	<b>Chicken Formula:</b> Chicken, chicken meal, whole ground brown rice, whole ground barley, rye . . .  24% protein; 14% fat; 4% fiber; 10% moisture	<b>Flint River</b> Flint River Ranch Riverside, CA (909) 682-5048 (sold through independent reps)	<b>Dry Water Formula:</b> Chicken meal, whole wheat flour, chicken, ground rice, rice flour, ground whole wheat . . .  22% protein; 10% fat; 5% fiber; 10% moisture
<b>Burns</b> Burns Pet Nutrition Chesterston, IN (877) 983-9651 bpn4u.com	<b>Brown Rice &amp; Ocean Fish Formula:</b> Brown rice, ocean fish meal, peas, oats, chicken fat, sunflower oil . . .  18.5% protein; 75% fat; 2.2% fiber; 9% moisture	<b>Foundations</b> Petcurean Pet Nutrition Abbotsford, BC (866) 864-6112 petcurean.com	<b>Chicken &amp; Vegetable Formula:</b> Chicken meal, hullless barley, oatmeal, ground rice, chicken, chicken fat . . .  26% protein; 16% fat; 3% fiber; 10% moisture
<b>by Nature BrightLife</b> by Nature Pet & Animal Feeds Londonderry, NH (800) 367-2730 bynaturepetfoods.com	Chicken meal, lamb meal, whole ground barley, ground Rice, whole ground oats, chicken fat . . .  28% protein; 18% fat; 5% fiber; 11% moisture	<b>Fromm Four Star Nutritionals</b> Fromm Family Foods Mequon, WI (800) 325-6331 frommfamilyfoods.com	<b>Performance Formula:</b> Chicken, chicken meal, ground yellow corn, oat flour, wheat flour, chicken fat . . .  26% protein; 18% fat; 3.5% fiber; 10% moisture
<b>California Natural</b> Natura Pet Products Santa Clara, CA (800) 532-7261 naturapet.com	<b>Chicken Formula:</b> Chicken meal, ground brown rice, ground white rice, sunflower oil, natural flavors, taurine . . .  21% protein; 11% fat; 4% fiber; 10% moisture	<b>Go! Natural</b> Petcurean Pet Nutrition Abbotsford, BC (866) 864-6112 petcurean.com	<b>Chicken, Fruit &amp; Vegetable Formula:</b> Chicken meal, chicken, whole brown rice, whole white rice, barley, sunflower oil . . .  24% protein; 14% fat; 3.5% fiber; 10% moisture
<b>Canidae</b> Canidae Corp. San Luis Obispo, CA (800) 398-1600 canidae.com	<b>All Life Stages Formula:</b> Chicken meal, turkey meal, brown rice, white rice, lamb meal, chicken fat . . .  24% protein; 14.5% fat; 4% fiber; 10% moisture	<b>Hund-N-Flocken</b> Solid Gold Health Products El Cajon, CA (800) 364-4863 solidgoldhealth.com	Lamb, lamb meal, millet, brown rice, cracked pearled barley, oatmeal . . .  22% protein; 10% fat; 4% fiber; 10% moisture
<b>Canine Caviar</b> Canine Caviar Pet Foods Anaheim, CA (800) 392-7898 caninecaviar.com	<b>Lamb &amp; Pearl Millet Formula:</b> Lamb meal, grnd. pearl millet, whole ground brown rice, chicken fat, whitefish meal, whole ground flax seed . . .  21% protein; 12% fat; 3.3% fiber; 8% moisture	<b>Innova</b> Natura Pet Products Santa Clara, CA (800) 532-7261 naturapet.com	Turkey, chicken, chicken meal, ground barley, ground brown rice, potatoes . . .  24% protein; 14% fat; 3% fiber; 10% moisture
<b>Chicken Soup for the Pet Lover's Soul</b> Diamond Pet Products Meta, MO (800) 442-0402 chickensoupforthepetloverssoul.com	Chicken, turkey, chicken meal, turkey meal, whole grain brown rice, whole grain white rice . . .  24% protein; 14% fat; 3% fiber; 8% moisture	<b>Innova Evo</b> Natura Pet Products Santa Clara, CA (800) 532-7261 naturapet.com	Turkey, chicken, turkey meal, chicken meal, potatoes, herring meal . . . (NOTE: This is a grain-free food.)  42% protein; 22% fat; 2.5% fiber; 10% moisture
<b>Cloud Star Kibble</b> Cloud Star Corporation San Luis Obispo, CA (800) 361-9079 cloudstar.com	Chicken meal, ground barley, ground brown rice, de-boned chicken, ground oats, vegetable oil . . .  30% protein; 9% fat; 2% fiber; 10% moisture	<b>Karma Organic</b> Natura Pet Products Santa Clara, CA (800) 532-7261 karmaorganic.com	Organic free-range chicken, organic kamut, organic brown rice, organic oats, organic barley, organic rice protein . . .  20% protein; 12% fat; 3% fiber; 10% moisture

MAKER, CONTACT INFO	SAMPLE VARIETY, FIRST 6 INGREDIENTS, MIN % PROTEIN, FAT; MAX % FIBER, MOISTURE
<b>Lick Your Chops</b> Healthy Pet Foods, Inc. West Chester, PA (800) 821-4640 healthypetfoodsinc.com	<b>Maintenance Formula:</b> Chicken meal, brown rice, rice, barley, oats, chicken fat . . .  25% protein; 14% fat; 4.5% fiber; 10% moisture
<b>Lifespan</b> Petguard Green Cove Springs, FL (800) 877-petguard petguard.com	Chicken, chicken meal, grd whole brown rice, grd whole yellow corn, oatmeal, poultry fat . . .  24% protein; 15% fat; 4% fiber; 12% moisture
<b>Limited Diets</b> Royal Canin St. Charles, MO (800) 592-6687 royalcanin.us	At press time, no information was available concerning the new formulations of the Limited Diets line, which was recently purchased by Royal Canin
<b>Merrick Pet Foods</b> Merrick Pet Care Hereford, TX (800) 664-7387 merrickpetcare.com	<b>Cowboy Cookout Formula:</b> Beef, oatmeal, barley, beef meal, whole brown rice, canola oil . . .  22% protein; 14% fat; 3.5% fiber; 10% moisture
<b>Mmillennia</b> Solid Gold Health Products El Cajon, CA (800) 364-4863 solidgoldhealth.com	Beef, beef meal, cracked pearled barley, brown rice, millet, rice bran . . .  22% protein; 12% fat; 4% fiber; 10% moisture
<b>Natural Balance Ultra Premium</b> Dick Van Patten's Natural Balance Pacoima, CA (800) 829-4493 naturalbalanceinc.com	Chicken, brown rice, duck, lamb meal, oatmeal, pearled barley . . .  23% protein; 13% fat; 3% fiber; 10% moisture
<b>Natural Choice Ultra</b> Nutro Products, Inc. City of Industry, CA (800) 833-5330 nutroproducts.com	<b>Adult Formula:</b> Chicken meal, whole brown rice, ground rice, lamb meal, rice bran, sunflower oil . . .  26% protein; 12% fat; 4% fiber; 10% moisture
<b>Newman's Own Organics</b> Newman's Own Organics Aptos, CA (800) 865-2866 newmansownorganics.com	<b>Adult Formula:</b> Chicken, organic barley, organic rice, organic milo, organic oats, organic ground flax seed . . .  21% protein; 12% fat; 4.5% fiber; 10% moisture
<b>NutriSource</b> KLN Enterprises Perham, MN (800) 525-9155 nutrisourcedogfood.com	<b>Adult Formula:</b> Chicken, chicken meal, brown rice, barley, oatmeal, whole grain ground wheat . . .  26% protein; 16% fat; 3% fiber; 10% moisture
<b>Organix</b> Castor & Pollux Pet Works Clackamas, OR (800) 875-7518 castorpolluxpet.com	<b>Ultramix Formula:</b> Chicken, chicken meal, turkey meal, potatoes, barley, oat groats . . .  28% protein; 15% fat; 3% fiber; 10% moisture
<b>Performatrin Ultra</b> Peton Distributors Langhorne, PA (800) PET-VALU performatrinultra.com	<b>Chicken Formula:</b> Chicken, chicken meal, whole brown rice, whole barley, whole rice, oatmeal . . .  22% protein; 12% fat; 4% fiber; 10% moisture
<b>PHD Viand</b> Perfect Health Diet Products Elmsford, NY (800) 743-1502 phdproducts.com	<b>Viand Formula:</b> Lamb meal, chicken meal, brown rice, whole corn, Naturox® (antioxidant preservation system), barley . . .  26% protein; 16% fat; 3% fiber; 10% moisture

MAKER, CONTACT INFO	SAMPLE VARIETY, FIRST 6 INGREDIENTS, MIN % PROTEIN, FAT; MAX % FIBER, MOISTURE
<b>Pinnacle</b> Breeder's Choice Pet Foods Irwindale, CA (800) 255-4286 breeders-choice.com	<b>Trout and Sweet Potato Formula:</b> Trout, oatmeal, toasted oats, herring meal, oat flour, canola oil . . .  22% protein; 10% fat; 4% fiber; 10% moisture
<b>Prairie</b> Nature's Variety Lincoln, NE (888) 519-7387 naturesvariety.com	<b>New Zealand Venison Formula:</b> Venison meal, millet, pumpkin seed, canola oil, montmorillonite, natural flavoring . . .  26% protein; 16% fat; 8% fiber; 10% moisture
<b>Premium Edge</b> Premium Edge Pet Foods Meta, MO (800) 977-8797 premiumedgepetfood.com	<b>Chicken Adult Formula:</b> Chicken, chicken meal, whole grain brown rice, cracked pearled barley, white rice, turkey meal . . .  26% protein; 15% fat; 3% fiber; 10% moisture
<b>Prime Life</b> Owen & Mandeville Pet Products Oxford, CT (888) 881-7703 ompetproducts.com	<b>Prime Life Plus Formula:</b> Chicken meal, turkey meal, whole brown rice, ground white rice, whole oats, whole barley . . .  25% protein; 16% fat; 5% fiber; 10% moisture
<b>Royal Canin Natural Blend</b> Royal Canin USA, Inc. St. Peters, MO (800) 592-6687 (US) (800) 527-2673 (Can) royalcanin.us	<b>Adult Formula:</b> Chicken meal, brown rice, chicken, oatmeal, brewers rice, chicken fat . . .  26% protein; 15% fat; 3% fiber; 10% moisture
<b>Timberwolf Organics</b> Yukon Nutritional Co. Dundee, FL (863) 439-0049 timberwolforganics.com	<b>Lamb, Barley, Apples Formula:</b> Lamb, salmon meal, lamb meal, salmon, whole ground oats, whole ground barley . . .  28% protein; 18% fat; 3% fiber; 9% moisture
<b>VeRUS</b> VeRUS Pet Foods, Inc. Abingdon, MD (888) 828-3787 veruspetfoods.com	<b>Menhaden Fish Meal &amp; Potato Formula:</b> Menhaden fish meal, potato, ground barley, ground oats, beet pulp, menhaden fish oil . . .  22% protein; 11% fat; 5% fiber; 10% moisture
<b>Wellness</b> Old Mother Hubbard Lowell, MA (800) 225-0904 oldmotherhubbard.com	<b>Fish &amp; Sweet Potato Formula:</b> Whitefish, ground barley (dehulled), rye flour, Menhaden fish meal, ground pearled barley, sweet potatoes . . .  22% protein; 12% fat; 3% fiber; 11% moisture
<b>Wellness Simple Food Solutions</b> Old Mother Hubbard Lovell, MA (800) 225-0904 oldmotherhubbard.com	<b>Venison Formula:</b> Ground brown rice, venison, brown rice protein, flax seed, sunflower oil, natural venison flavor . . .  21% protein; 12% fat; 3% fiber; 11% moisture
<b>Wenawe</b> Della Natura Commodities Bayside, NY (866) 936-2393 wenawe.com.uy	<b>Adult Formula:</b> Organic Uruguayan beef, organic chicken, organic brown rice, organic canola seed, organic flax seed meal, organic sunflower seed . . .  20% protein; 12% fat; 5% fiber; 10.5% moisture
<b>Wysong</b> Wysong Corporation Midland, MI (800) 748-0188 wysong.net	<b>Anergen Formula:</b> Lamb, ground brown rice, ground oat groats, ground flax seeds, dried yeast, dl-methionine . . .  24% protein; 12% fat; 4.5% fiber; 12% moisture
<b>Zinpro</b> Lincoln Biotech East Bend, NC (800) 253-8128 lincolnbiochem.com	<b>Skin &amp; Coat Formula:</b> Menhaden fish meal, brown rice, oatmeal, potato meal, ground barley, herring meal . . .  22% protein; 12% fat; 3% fiber; 10% moisture

## Yes, Dog Food Can Kill

In October 2004, we published “When Foods Go Bad,” alerting dog owners that problems can arise in the manufacture of pet food that result in tainted product that can sicken or even kill dogs who eat enough of it. We highlighted three of the largest pet food disasters – two that killed dozens of dogs and another that caused serious vomiting in hundreds of animals.

When pet food is in production, every so often the manufacturer pulls finished samples off the line. These samples are labeled with the date and time and stored for at least the shelf life of the food. If the pet food company receives a report from an owner who is concerned about the appearance or odor of the food, or whose dog has had a bad reaction to the food, the first thing their consumer representatives do is to ask the owner for the date-code information. (This is one of the reasons we encourage people to store dry dog food in its original bag, even if they then put the bag in a container. This way, the owner is ensured of having the date-code available until the food is gone.)

With this information, the company can quickly look up the sample that correlates to the batch that the owner has. Then they can subject the sample to any needed tests or examinations to determine if the problem the owner has experienced could have originated in the product manufacture. Sometimes, the food is subject to conditions in shipping or storage that could have caused the problem (moisture, heat, or, especially, both), and this avenue will also be explored by the company.

Rarely, no obvious cause is found to explain the illness or death of the affected pets. Laboratory tests and investigations will be conducted by the pet food company, its “contract manufacturer” (if it does not manufacture its food at its own plant), state feed control officials. If the event was serious enough, even the Food and Drug Administration’s Center for Veterinary Medicine (FDA CVM) will send investigators to examine the plant and scrutinize its records and manufacturing practices. (This was the case in 2003, when some of Petcurean’s dog and cat foods, at the time made by Merrick Pet Foods, Inc., were linked to the death of at least 25 dogs; no cause was ever determined.)

Usually, however, a cause is found. The most common hazards that can make dogs ill are types of mycotoxins – toxic substances that are by-products of certain species of mold (fungi) that can infect grain crops, especially crops that were subject to moisture late in the growing season or storage. Mycotoxins are quite stable in heat, so they can’t be “cooked out” in pet food production. The two that most frequently affect dogs are:

■ **Vomitoxin** (deoxynivalenol or DON), which, as the name suggests, causes severe vomiting and can result in the dog’s death. Vomitoxin most commonly affects wheat and barley.

■ **Aflatoxin**, a toxin that is manufactured by one of several strains of *Aspergillus*. Corn is the most common host to the mold that makes aflatoxin. Liver damage and death can result when dogs eat food that is contaminated with aflatoxins; the more the dog ate, the worse his prognosis.

Usually, mycotoxins end up in the news only when a massive contamination has affected a huge amount of pet food or a

large number of pets. This occurred last December, when Diamond Pet Foods announced a recall of 19 of the pet foods manufactured at its Gaston, South Carolina, production plant after at least 23 dog deaths were traced to aflatoxin in its foods. (These included dog and cat foods sold under the Diamond, Country Value, and Professional brand names; for a list of the foods and lot numbers, see the Web site that Diamond set up, [diamondpetrecall.com](http://diamondpetrecall.com), or call the company at 866-214-6945.)

In our July 2000 issue, however, we published an article (“Hidden Killers in Dog Food”) about a dog who suffered bizarre symptoms from eating a food that was infected with aflatoxin. Tests revealed that the food contained 40 parts per billion aflatoxin – twice the amount allowed in dog food, but about half as much as the amount that can cause dog deaths. While never the subject of a recall, and apparently not affecting large numbers of dogs, the food contained enough aflatoxin to sicken at least one dog who was sensitive to the toxin. The German Shepherd suffered from lethargy, extreme sensitivity to light (enough to make him refuse to go outside during the daytime), heat intolerance (which continued for years after the episode), and other neurological disorders including trembling and an uncharacteristic anxiety.

Without large numbers of dead dogs and the resulting media coverage, most owners (and even many veterinarians) may never learn about the possibility that a mycotoxin can cause a dog’s liver failure or neurological problem. However, this should be considered any time a dog with those symptoms is fed dry food, especially foods that contain corn, wheat, or barley.

Pet food makers generally have a number of strategies in place to prevent mycotoxin contamination. This may start with ingredient purchasing contracts with reliable producers, but should also include inspection and testing of each load of raw ingredients *before* the delivery is accepted at the manufacturing plant. This can be quite challenging at the highest-volume production facilities, however. This is undoubtedly why, historically, the largest mycotoxin-poisoning events have involved companies that produce and sell massive amounts of pet food: Nature’s Recipe in 1995, Doane Pet Care in 1998, and Diamond in 2005.

### WHAT YOU CAN DO TO PROTECT YOUR DOG

First, store your dog’s food in a cool, *dry* place; exposure to moisture and heat can promote the growth of any mold that is present in the food.

Next, if your dog’s food appears moldy or smells bad, *don’t feed it to your dog*. Contact the company, with the bag’s date-code in hand, and report the problem to them. Similarly, if your dog suddenly refuses to eat a food that he has previously enjoyed, don’t keep giving it to him. With their keen sense of smell, dogs are probably able to detect the mold that produces the toxin, and may be tipping you off to its presence.

Finally, if your dog develops any signs of a bad reaction to a food, especially vomiting, diarrhea, extreme lethargy, a yellowing of the skin or whites of the eyes (indicating liver damage), or any neurological symptoms, stop feeding the food to the dog, take him to a veterinarian as soon as possible, and contact the company with the food’s date-code in hand. 🐾