

Dog Food

by Dea Freiheit

This multi-issue article will cover Manufactured vs. Raw, Homemade foods, and the BARF diet, Dry vs. Canned (Wet), How Dog Food Is Made, Labels - How to Read Them and Regulations, Ingredients - What Are They Really?, Health Issues Related to Dog Food and Manufacturers and Brands.

I am not a veterinarian, and this article is not intended to tell you what to feed your dog, but rather to inform you so that either you or your veterinarian can make an informed decision. I can not stress enough that you and your vet need to assess what is the best food for your dog's specific needs. Any opinions expressed in this article, are just that, my opinions. The pet food industry in the US represents a 16.1 billion dollar industry, so it is important to get the most for your dog food dollar.

Manufactured vs Raw, Homemade Foods, BARF



Ingredients for Homemade Dog Food

Whether to feed a manufactured dog diet or feed raw, homemade or the BARF diet (which stands for Bones And Raw Food) is a highly controversial subject in the dog world today. I know people who swear by one or the other.

Most people, myself included, feed a manufactured dog food. Frankly, I am too busy grooming OES and leading my otherwise diverse life, to concoct a diet for my dogs. Honestly, I would rather use the time to cook for my human family. I am of the opinion that while no dog food manufacturer is perfect, and they are profit motivated, they have spent millions of dollars researching and producing dog foods that one can purchase off the shelf that are ready to feed, and that the average dog will thrive on. There is enough diversity in different manufactured dog foods to fit most dogs palates and nutritional needs.

For those that prefer a more “natural” approach, there are dozens of diets that are popular today ranging from feeding raw meat exclusively, to cooking your own dog biscuits to the BARF diet. A careful examination of nutrients essential to dog health, time involved, and keeping such diets absolutely fresh, since they have no form of preservatives or bacteriostatics in them, is essential.

Throwing a raw steak down on the floor for your dog to eat is not going to be sufficient to meet your dogs dietary needs. Wild dogs of all types (wolves, foxes, coyotes etc) eat a diet of meat and vegetation, thus are classified as omnivores, vs true carnivores, which only eat meat. When watching a wolf eat a deer or elk (herbivores), biologists note that not only do they eat the meat, skin, hair etc but they also eat the contents of the stomach and intestines, which contains vegetation that the herbivore has eaten.



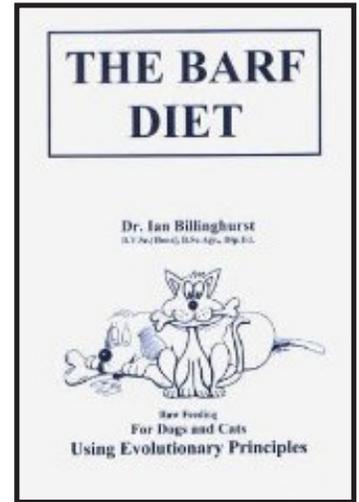
Dry Dog Food

There are many recipes online to make your own dry dog food. Some probably are great - but again, for most of us, time is a limiting factor in choosing to manufacture our own dog food.

BARFer's (as they call themselves) feed their dogs a combination of raw meat, eggs, meaty bones, some vegetables, and a small amount of regular kibble. The point of BARF is to keep dogs vital and healthy. This eating program was created by Dr. Ian Billinghurst, a veterinary surgeon from Australia.

“Raw meaty bone-eating dogs lived much longer than their commercially fed counterparts,” Dr. Billinghurst said. “Bone-eating dogs have the wonderful benefits of clean teeth with no periodontal disease, wonderfully improved digestion, a reduction in obesity, fabulous eating exercise, healthy stools, no anal sac problems, and the wonderful psychological, emotional, and immune system benefits that eating raw meaty bones has conferred on dogs for millions of years.”

According to the veterinary text book *Infectious Diseases of the Dog and Cat*, dogs—immunocompromised or healthy—that eat raw meat are susceptible to bacterial infections. E. coli and Salmonella are among the more serious infections that are transmitted through meat that isn't properly cooked. Remember the E. coli scare from under-cooked hamburgers?



Julie Churchill is a nutrition expert from the University of Minnesota's College of Veterinary Medicine. “I am very much against the raw food diets,” Dr. Churchill said. “Many dogs can do well on a raw food diet. However, [the diets] have the potential to be life-threatening. Any food that can potentially kill even one animal is not worth the risk. Bones, even raw and ground ones, can perforate the [gastrointestinal] tract. This can lead to peritonitis, severe infections, require emergency surgery, and dogs die from this each year. These diets are contaminated with bacteria. This may not be harmful to a healthy dog. However, dogs don't come with a label saying which ones will be fine and which ones will get sick.”

The BARF diet definitely has its advocates as well as critics. You and your vet must decide what is right for your lifestyle and the health of your dog.

Canned (Wet) vs. Dry Food



It is a challenge to compare canned vs. dry dog food. It is really like comparing apples to oranges. In order to evaluate them equitably, it is necessary to use a “dry matter basis” using a mathematical conversion. If you are interested in the specific formula for this conversion, e-mail me and I will send it to you. Suffice it to say, it takes the amount of water in the food into consideration. This produces interesting results. For example, a canned dog food with 10% protein actually has more protein than a dry food with 30% protein. Dry dog food typically is about 10% water, while canned food is 78% or more water.

Most people feel that canned dog food is a great addition to dry dog food, to enhance palatability. Canned dog food also has less preservatives, as the canning process itself is a form of preservation. Also, canned dog food, since it has more water in it, is a good way to get more water into the dog's diet, especially for dogs that tend to have UTI's etc. However, strictly feeding canned dog food can lead to obesity as well as looser stools.

Veterinarians and even the manufacturers recommend that canned food is best used as a supplement to dry food.

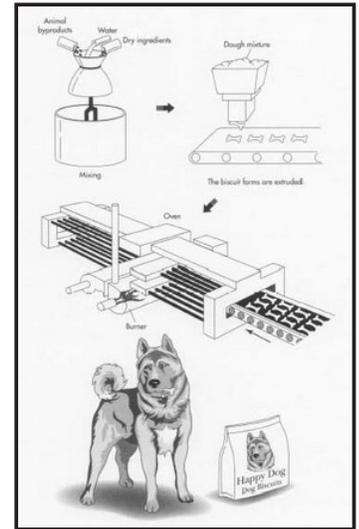
How Dog Food Is Made

Dry dog food is made in either of two different methods. The most common is the extrusion method. Think of pushing frosting through a cake decorating nozzle to visualize the process.

First all the ingredients are blended using a recipe that is computer programmed to take into account the fact that different ingredients have different nutritional values. For example, corn gluten has more protein than wheat flour. In order for the extruder to mechanically function properly, the dough also needs to have consistent amounts of starch and low moisture levels. Dough is fed into the screws of the extruder. It is exposed to steam and high pressures as it is pushed through to produce the final shape. As the food exits the extruder, whirring knives cut it into small pieces which are then allowed to dry. During the drying process, most foods expand or “puff” to achieve their final shape.

The food is allowed to dry and then is sprayed with fat, digesters or other products to increase palatability. After it is cooled, it is then bagged.

Semi-moist food and many dog treats are also produced by the extrusion method.



The second method for manufacturing dry dog food is baking. Large sheets of dough are baked at 500 degrees or more. Think of it as a huge, crunchy cookie. This is then broken up into irregularly shaped pieces. This food generally is flavorful enough that is it not sprayed with any enhancers to make it more palatable.

Canned or wet dog food is made completely differently than dry dog food. The ingredients are ground and mixed with additives. If you see chunks in the food, don't be fooled, these are most likely the product of our friend the extruder. This mixture is then cooked and canned, although some food is actually cooked after it is canned. The sealed cans are put into huge containers similar to pressure cookers and the food is sterilized by this process. Some canned food is actually frozen after it is canned until it is sent to distributors.

Dog Food Labels

Labeling requirements such as guidelines and definitions for all animal feed, including pet foods, are set by the AAFCO (The Association of American Feed Control Officials).

The name of the food is the first indication of content. The terms “all” or “100%” cannot be used “if the product contains more than one ingredient, not including water sufficient for processing, decharacterizing agents, or trace amounts of preservatives and condiments”.

The “95% rule” applies when companies tout their food as 95-100% meat. This means that 95% of the ingredients are derived from animals, poultry or fish, or 70% if you exclude the water used for processing. This type of food is generally used as a supplement, as just feeding this type of food will result in many nutrient deficiencies in your pet.

The word “dinner” can only be used when an ingredient or combinations of ingredients constitutes at least 25% of the weight of the product (again excluding water used for processing). The words “recipe”, “platter”, “entree”, and “formula” require 10% of the dry matter weight of the ingredient they are describing to be present.

“With” allows an ingredient to be used in the name as long as each ingredient constitutes at least 3% of the food by weight, excluding water used for processing. So a food whose name includes the words “with real steak” would require 3% “real steak”.

“**Flavor**” only requires enough of an ingredient to “impart a distinctive characteristic” to the food. Thus a “beef flavor” may only contain enough digest (we will cover this later) or other extracts of tissues from cattle, or even an artificial flavor, without even containing any actual beef meat at all.

A good rule of thumb to distinguish the major components of a food is to look for the first named source of fat in the ingredient list. Anything listed before that, and including it, make up the main portion of the food. Other items are present in much smaller amounts to add flavor, function as preservatives or because of their dietary benefits (e.g. probiotics, vitamins and minerals).

Examples:

Food A has the following ingredient list (first source of fat in bold):

Ground yellow corn, meat meal, **chicken fat**, ground wheat, chicken byproduct meal, dried beet pulp, flaxseed, salt, vitamins, minerals...

Food B has the following ingredient list (first source of fat in bold):

Turkey, chicken, chicken meal, ground barley, ground brown rice, potatoes, ground white rice, **chicken fat**, herring, apples, carrots, cottage cheese, sunflower oil, alfalfa sprouts, egg, garlic, probiotics, vitamins, minerals...

Before comparing products by their weight, cost, content of protein, fat, and fiber, make sure they have the same content of moisture. If they differ, you need convert the values for all products to an equal percentage. Obviously you don't want to be paying more for just water.

References

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