

“NATURAL” PET FOODS

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“Natural” is a word that frequently appears on pet food packaging. The word natural means different things to different people. To most people, natural implies fresh, unprocessed foods, free of preservatives, additives and synthetic ingredients. For some people, natural relates to nature and refers to foods that would typically be consumed by wolves in the wilds. While natural may mean different things to different people, it invariably is associated with positive attributes. Natural is good, natural is better than man-made. But does this hold true for pet foods? What is the definition of a “natural” pet food and how is it different from a non-natural one?

The Association of American Feed Control Officials (AAFCO) allows a pet food to be labeled natural if it is “a food derived solely from plant, animal or mined sources, not having been produced by or subject to a chemical synthetic process and not containing any additives or processing aids that are chemically synthetic”. The AAFCO definition further states that the food can either be in its unprocessed state or it can have been subjected to “physical processing, heat processing, rendering, purification, extraction, hydrolysis, enzymolysis or fermentation”. If chemically synthesized vitamins, minerals or trace nutrients are present in the product, the food can still be labeled natural if it includes a disclaimer, for example “natural with added vitamins and minerals”.

Note that the AAFCO definition of natural does not make any reference to ingredient freshness or quality. The poorest grade poultry, sourced from birds not fit for human consumption, rendered into the poorest grade poultry meal meets the AAFCO criteria of natural. Rancid fat also satisfies the criteria for natural, as do cereal ingredients containing molds or mycotoxins. The word natural on a pet food label does not mean that it is made

with wholesome, high quality ingredients. In fact, the meat, poultry and fish meals and the plant cereal ingredients used in a natural pet food may be no different from those used in regular pet foods.

The AAFCO definition of “natural” is very liberal with regards to processing. Meat, poultry and fish meals are produced by “rendering”. Rendering is a high temperature cooking process in which fat is extracted and the meat is dehydrated to a dry meal. These rendered meals are then combined with cereal ingredients and extruded to make pet food. Extrusion is a high temperature, high pressure, steamed cooking process. The word natural on a pet food label does not mean the food is fresh or unprocessed.

So what exactly is the difference between natural pet foods and regular pet foods?

The real distinction between a pet food labeled “natural” and any other pet food is the type of preservative it contains. While regular pet foods may contain synthetic preservatives (such as BHA, BHT and ethoxyquin), natural pet foods may only contain “natural preservatives” (i.e. mixed tocopherols). For some people, this is an oxymoron. If it’s a preservative, how can it be natural? In fact, there is some validity to this challenge. Natural preservatives may be less “natural” than most people realize and they do not confer nutritional benefits to a dog even though they are sometimes referred to as vitamins or antioxidants.

Let’s address the first point. The “mixed tocopherols” used as natural preservatives are not synthetically produced but rather they are extracted from natural sources. This extraction can be achieved through various methods: by esterification with an alcohol, washing and vacuum distillation, by saponification, or by fractional liquid-liquid extraction. Mixed tocopherols may be classified as natural preservatives, but you

could argue that they aren’t naturally derived.

With respect to the second point, although some foods claim to be preserved with vitamin E, in fact the form of vitamin E used to preserve foods has virtually no vitamin activity in a dog’s body. The biologically active form of vitamin E is called alpha-tocopherol and will appear on most pet food labels as alpha-tocopherol acetate. AAFCO classifies alpha-tocopherol as a vitamin. It has no preservative capabilities. The “mixed tocopherols” used for preserving pet foods are typically mixtures of gamma-tocopherol, beta-tocopherol and delta-tocopherol. AAFCO classifies all tocopherols other than alpha tocopherol as chemical preservatives. They have minimal vitamin activity for a dog.

Contributing to the confusion on this topic is the fact that both vitamins and preservatives can be referred to as “antioxidants”. An antioxidant is any product that slows or prevents oxidation. Active vitamin E (alpha tocopherol) acts as an antioxidant within the body, preventing oxidative damage to a dog’s cells and tissues. Natural preservatives (mixed tocopherols) act as antioxidants in pet foods, preventing oxidative damage to pet food constituents. The antioxidants that are used to preserve pet foods do not provide antioxidant benefits in a pet’s body.

Are natural preservatives better than synthetic ones? Synthetic preservatives are generally more effective at stabilizing pet foods. You typically need to add about twice as much natural preservative as compared to synthetic preservative to achieve the same degree of stabilization. So with respect to efficacy, synthetic preservatives are decidedly better. With respect to safety, there are studies reporting adverse effects of both natural and synthetic preservatives but these studies involved feeding the preservatives at dosages hundreds of times higher than the levels typically found in pet foods. There is no

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question that an excessively high intake of either natural or synthetic preservatives can have negative effects on a pet's health. But the same holds true for calcium, salt, vitamin A, zinc and a host of other essential nutrients, all of which can be toxic if ingested at high enough levels. Even water can be harmful if consumed in high enough quantity. The preservatives used in pet foods all have FDA "GRAS" status, which means that they are "generally recognized as safe" by independent qualified experts.

It is important not to lose sight of the reason that preservatives are added to pet foods, namely to prevent fat from going rancid. While the safety of preservatives may be subject to debate, there is no arguing the fact that the peroxides in rancid fat are toxic to dogs. Peroxides in rancid fat also destroy the fat soluble vitamins A, D, E and K. Adverse reactions to rancid food are far more common in dogs than adverse reactions to preservatives, natural or synthetic.

There are, of course, natural pet foods that claim to contain no preservatives. Raw, unprocessed pet foods can legitimately make this claim, as can most canned pet foods. Raw foods are frozen to preserve freshness. With canned foods, the can itself acts to preserve the food inside. These two types of foods do not need to contain preservatives. Dry pet food kibbles on the other hand, are coated in fat making them as vulnerable to rancidity as butter left sitting on a countertop. Any dry food that has a shelf-life longer than that of exposed butter must contain a preservative to stabilize its fat. However, there are no regulations in Canada that make it mandatory to list preservatives on a pet food label. If the diet is made and sold only in Canada, the manufacturer can choose to leave its preservatives off the ingredient list.

The word natural means different things to different people. In the world of pet food labeling, natural has no implications with respect to freshness, processing, quality or wholesomeness. Natural dry pet foods, like regular dry pet foods, are produced by extrusion using rendered meats and fats

stabilized with chemical preservatives. Nutritionally speaking, there is really nothing to distinguish a "natural" pet food from any other.