



# **The Pet Nutrition Answer Book**

**Correcting the Myths and  
Misinformation Common in  
the Pet Food Industry**



# Corn / Grains

This information will address the most common myths & misconceptions about corn, as well as facts & benefits about corn & other grains.

**Myth: Corn is a poorly digested filler** - Corn, when properly cooked & ground, (the way Hill's uses it), is actually a highly digestible grain.



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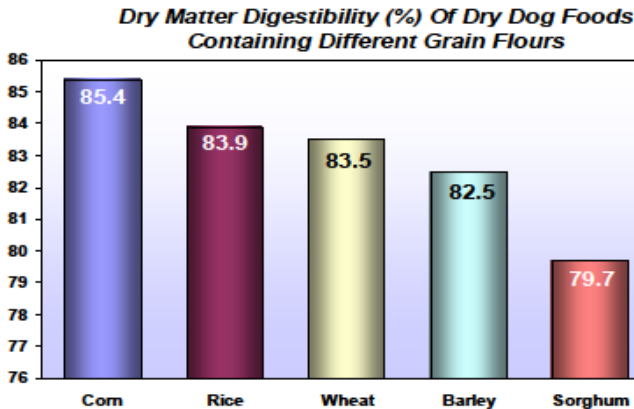
## Nutritional Nuggets

No. 033103

Soundbites on Current Topics

## CORN

### Highly Digestible



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\*Murray SM, Fahey GC, Merchen RN, et al. Evaluation of selected high-starch flours as ingredients in canine diets. J Anim Sci 1999; 77:2180-2186.

### A Superb Source of Nutrients

- **Essential Fatty Acids—**  
For Healthy Skin and Coat
- **Beta-carotene, Vitamin E, Lutein—**  
Nature's Antioxidants
- **Highly Digestible Carbohydrates—**  
For Energy
- **Quality Proteins—**  
For Muscle and Tissue Growth

**What is a filler?** Why is corn even perceived as a filler when other grains like rice, wheat & barley are not? The term **filler refers to an ingredient that provides no nutritional value**. Corn, & other grains, provide various nutrients such as, carbohydrates for energy, proteins for muscle and tissue growth, fatty acids, vitamins & antioxidants.



# Corn / Grains

**Why use grains in pet food anyway, aren't dogs carnivores?** Dogs are actually omnivores and require both meat & grains in their diet.

**Fatty Acids:** - One of the biggest advantages that corn has over other grains is the amount of Omega 6 fatty acids. Corn contains more than twice the amount of fatty acids than other grains, (9 x more than rice).



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## Nutritional Nuggets

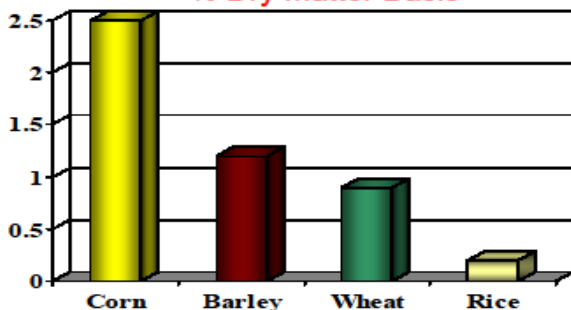
Soundbites on Current Topics

### CORN

**High in Essential Fatty Acids—  
For Healthy Skin and Coat**

**Bursting With Other  
Healthful Nutrients**

**Polyunsaturated Fatty Acids\*  
% Dry Matter Basis**



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\*From USDA Nutrient Database for Standard Reference. Release 13; 9/22/2003.

• **Beta-carotene, Vitamin E, Lutein—  
Nature's Antioxidants**

• **Highly Digestible Carbohydrates—  
For Energy**

• **Quality Proteins—  
For Muscle and Tissue Growth**

**Linoleic Acid:** - An essential fatty acid & major contributor to creating a shiny skin & coat. Lamb & rice foods are often recommended for skin & coat. Corn however, is the largest grain source for Linoleic Acid, containing more than 3 times the amount provided by rice.



# Corn / Grains

**Myth: Corn is Highly Allergenic** – This has been, & remains to be one of the largest misconceptions about corn. Most consumers believe that corn is a main contributor when it comes to food allergies. **The truth is that most allergies are environmental.** Actual Reported Cases of Food Allergies affect **less than 10%, of all Dogs & Cats.** With over 68% of those cases stemming from Beef, Dairy & Wheat in Dogs & 80% from Beef, Dairy & Fish in Cats.



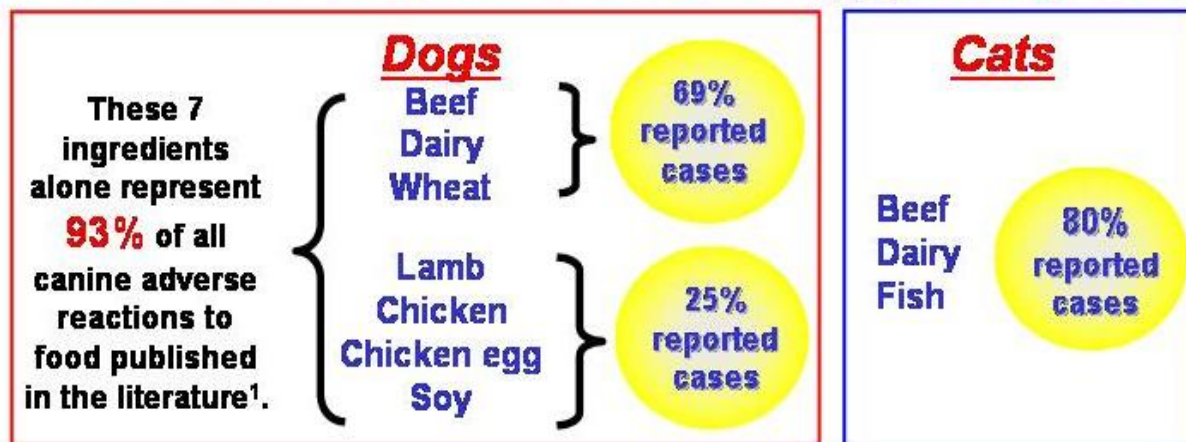
Technical Information Services

## Nutritional Nuggets

NN0056 Facts about food allergy.

Soundbites on Current Topics

## Facts about food allergy in pets.



**Corn is NOT a common cause of adverse food reactions in pets.**

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**Corn actually represents less than 2.3% of that less than 10% of the "Pet World" with an actual food allergy!!!**



# Corn / Grains

**More Truths about Allergies:** Allergic reactions to grass & other environmental items is usually caused by their pollens. It is possible to have an allergic reaction to the pollen in grass if you were to smell it, or touch it. However, if you were to cook the grass, & kill the pollens, you could actually eat that item & not notice a thing. Determining an actual food allergy can be very difficult & time consuming thru lengthy **feeding trials**, and actual **blood testing** usually only lists **potential** allergens. adverse reactions to foods may show up in 2 forms; a **food allergy** and/or a **food intolerance**.



## Nutritional Nugget

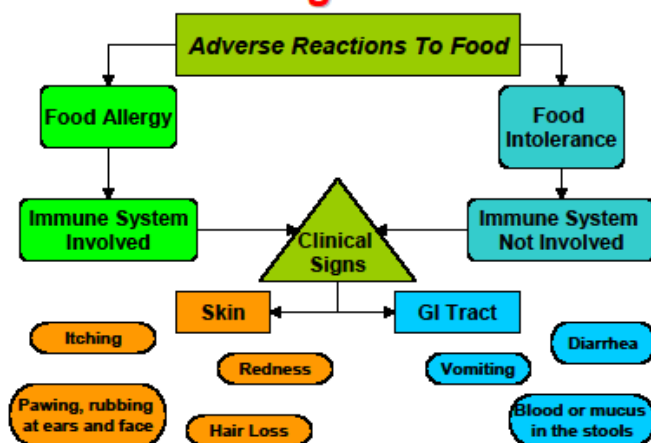
Presented By: Hill's Pet Nutrition



### Adverse Reactions To Food in Dogs and Cats

#### Key Facts

- Like people, pets can have adverse reactions to certain foods. They may be allergic to something in the food, or they may simply have an intolerance to an ingredient.
  - With a *food allergy*, the pet's immune system "overreacts" to an otherwise harmless ingredient. The ingredient triggers an immune response, releasing histamine and other compounds to cause allergic signs.
  - A *food intolerance* does not involve the immune system, but occurs when the body has an abnormal response to a food or food additive.
- It's difficult to tell the difference between a true food allergy and food intolerance because the signs are often the same.
  - Skin itching and redness
  - Gastrointestinal problems
  - Hair loss
  - Chronic ear infections



- Corn and rice are NOT common causes of adverse food reactions in pets.* Corn has been reported to cause only 2% of the adverse reactions in dogs and 5% in cats. Rice has been reported to cause only 1% of the adverse reactions in dogs. No adverse reactions to rice have been reported in cats.<sup>1</sup>

<sup>1</sup>Roudebush P. Ingredients associated with adverse food reactions in dogs and cats. Small Anim Med Surg 2002; 15(9):1-3.  
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# Grain Free

**Fewer carbohydrates** is usually the reasoning behind choosing a grain free diet. Yet many of the grain free choice ingredients may actually contain **higher levels of carbohydrates**.



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## Nutritional Nuggets

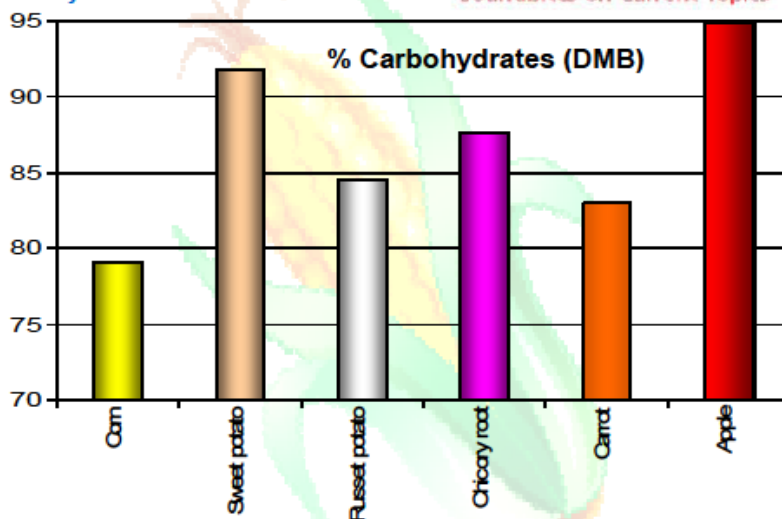
No: NN0094E Corn, "No Grains" carbohydrates

Soundbites on Current Topics

### ***No Grains?***

**Is this idea about  
Marketing or  
Nutrition?**

**Many substitutes for  
grains actually  
contain more  
carbohydrates than  
corn!**



Data from USDA Food Nutrient Report database version SR15

**Multiple peer reviewed clinical studies exist showing dogs and cats ability to utilize the nutrients in corn. No similar studies exist for many "veggies"<sup>1</sup>.**

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There are no clinical studies to support any of the claims or benefits made by grain free diets. In cats specifically, which are carnivores, there are multiple published studies illustrating their ability to digest & use nutrients from grains. However there are no published studies that evaluate their digestibility of other vegetable sources.


**There is no Clinically Proven, Nutritional Foundation  
feeding a Grain Free diet.**

for



# Grain Free

Don't be fooled by **false perceptions** about benefits provided, & bogus or misleading claims made by grain free diets. They are simply substituting one carbohydrate source for another. They may also use misleading terms that consumers may miss, or mistake for something else.




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## Nutritional Nuggets

No: NN0095 – No Grains – Don't be fooled

Soundbites on Current Topics

### No Grains? Don't be fooled!



Some pet foods simply exchange one carbohydrate source for another, or use terms consumers may not recognize for what they are.

Sweet potato actually contains 6.4% more carbohydrates per gram than corn<sup>1</sup>

#### INGREDIENTS

Chicken, chicken meal, turkey meal, russet potato, lake whitefish, chicken fat (preserved with mixed tocopherols, a natural source of vitamin E), sweet potato, whole eggs, turkey, salmon meal, salmon and anchovy oils, salmon, natural chicken flavor, sunflower oil, sun-cured alfalfa, dried brown kelp, carrots, spinach, peas, tomatoes, apples, psyllium, dulse, chicory root, licorice root, tumeric root, fenugreek, glucosamine HCl, cranberries, black currants, marigold flowers, L-carnitine, fennel seed, **zea mays**, peppermint leaf, chamomile flowers, dandelion, summer

That interesting ingredient "zea mays" – is actually **Corn**

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<sup>1</sup> On a dry matter basis, using the USDA Food Nutrient Report Version SR15.

# Grain Free

**“Bones And Raw Food”, BARF Diets** are another popular grain free trend. These diets may also be used because they are perceived to contain fewer carbohydrates. **There are also No Clinical Studies to support any of the claims about BARF Diets.**

Besides some of the obvious concerns like excess levels of calcium & phosphorus due to the amount of bone intake.

The following nugget addresses many of the facts & fiction around BARF Diets;



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## Nutritional Nuggets

No. NN0024

Soundbites on Current Topics

### BARF Feeding - Fact & Fiction

#### Facts

1. There is no scientific data to support beliefs commonly held by supporters.
2. Published BARF recipes contain excessive levels of Key Nutritional Factors, for example: protein, calcium and phosphorus for an adult dog or cat. <sup>1</sup>
3. Food poisoning is an obvious safety concern for animals eating raw foods and owners feeding raw foods. <sup>2</sup>
4. Pets eating BARF diets or other raw food diets are at increased risk for intestinal obstruction, fractured teeth and gastrointestinal perforation. <sup>3</sup>

#### Fiction

1. Domestic dogs require identical foods as wild wolves. *False – ignores 130,000 years of genetic adaptation that separates domestic dogs from wild wolves. <sup>4</sup>*
2. Eating raw bones is good for domestic dogs. *False – Ignores fact that wild canines ingest large amounts of prey fur which coat bones and prevents puncture damage. <sup>5</sup>*
3. Grains and carbohydrates are not digestible by domestic dogs. *False – dogs are quite capable of gaining large amounts of energy from grains. Nearly 99% of the starch fraction and 60-84% of the protein fraction of commonly used grains is digestible in dogs. <sup>6</sup>*

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<sup>1</sup> Billinghurst I. *Give Your Dog a Bone*. Alexandria, Australia: Bridge Printery, 1993. Schulze KR. *The Ultimate Diet*. Descanso, California: Affenbar Ink, 1998. Volhard W, Brown K. The natural diet.

*The Holistic Guide for a Healthy Dog*. New York: Howell Book House, 1995; 167-190

<sup>2</sup> Freeman LM, Michel KE. Evaluation of raw food diets for dogs. *J Am Vet Med Assoc* 2001; 218: 705-709, 1553-1554 and 1716. Miller EP, Cullor JS. Food safety. *Small Animal Clinical Nutrition*, 4th edition, pages 184-198.

<sup>3</sup> Joffe DJ, Schlesinger DP. Preliminary assessment of the risk of salmonella infection in dogs fed raw chicken diets. *Canadian Veterinary Journal*, June 2002 43(6):441-2

<sup>4</sup> Wayne R. K., "Molecular evolution of the family dog," *Trends in Genetics*, June 1993 (vol. 9, #6) pp. 218-224.


<sup>5</sup> [www.thepetcenter.com/imtop/wolfexrep.html](http://www.thepetcenter.com/imtop/wolfexrep.html)

<sup>6</sup> *J Anim Sci* 1999 Aug;77(8):2180-6 Murray SM, Fahey GC Jr, Merchen NR, Sunvold GD, Reinhart GA. Evaluation of selected high-starch flours as ingredients in canine diets.



# By-Products

Don't let the term "By-Product" scare you. The term itself, simply means something produced in the making of something else.



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## Nutritional Nuggets

No: NN0154 – Can you find the hidden by-products?Soundbites on Current Topics

### What is a By-product?

According to the 2010 Official Publication of AAFCO,  
Page 315 (Official Feed Terms), a by-product is defined as:

***"By-Product - Secondary products produced in addition to the principle product."***

Examples of ingredients that are by-products:  
Lamb meal, Chicken Meal, Fish meal, Salmon meal, Vitamin E, Chicken liver, Egg Product,  
Chicken by-product meal, Whey, Beet pulp, Chicken fat, Rice bran, Tomato pomace.

**Here's a sample pet food ingredient label – can you find the hidden by-products?**

**Lamb Meal**, Ground Rice, Rice Flour, **Rice Bran**, Whole Brown Rice, Pea Protein, Lamb, **Poultry Fat**  
(preserved with mixed Tocopherols, a source of Vitamin E), **Natural Flavors**, Soybean Oil  
(preserved with mixed Tocopherols, a source of Vitamin E), Sunflower Oil (preserved with mixed Tocopherols,  
a source of Vitamin E), **Dried Plain Beet Pulp**, Potassium Chloride, Sodium Bicarbonate,  
L-Lysine, Salt, Choline Chloride, **Egg Product**, Monocalcium Phosphate, Dried Kelp, Taurine, .....

The pet food label above is Nutro® Natural Choice® Lamb Meal and Rice Formula.  
This product contains 6 different ingredients defined by AAFCO as **BY-PRODUCTS**

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Though by-products are not limited to meats, most conversations center around a meat source. For example, **meat meals** contain crushed bone, & are by definition, a by-product. **Meat meals** can contain higher levels of calcium & phosphorous than **meat by-product meals** made from the same source. The difference being the added cleaned internal organs in the **by-product meal** lowers the overall content percentage of bone in the finished product.



# By-Products

There are many variations of By-Products used in the pet food industry. Some are called by-products some are not. Here is a list of the most commonly used & their AAFCO definitions:

## By-Product

## AAFCO Definition

**Poultry Meal** – is the dry rendered product from a combination of clean flesh & skin, with/without accompanying bone, derived from the parts or whole carcasses of poultry or a combination thereof, exclusive of feathers, heads, feet & entrails. It shall be suitable for use in animal food. If it bears a name descriptive of it's kind, it must correspond thereto. If the bone has been removed the process may be so designated by the use of the appropriate feed term.

**Poultry By-Products** – must consist of non-rendered clean parts of carcasses of slaughtered poultry such as heads, feet, viscera, free from fecal content & foreign matter except in such trace amounts as might occur unavoidably in good factory practice. If the product bears a name descriptive of its kind, the name must correspond thereto.

# By-Products

## By-Product

## AAFCO Definition

**Poultry By-Product Meal** – consists of the ground, rendered, clean parts of the carcass of slaughtered poultry, such as necks, feet, underdeveloped eggs, & intestines, exclusive of feathers, except in such amounts as might occur unavoidably in good processing practices. The label shall include guarantees for; minimum crude protein, crude fat & Phosphorus, maximum crude fiber, & min. & max. calcium. The Calcium level shall not exceed the actual level of phosphorus by more than 2.2 times. If the product bears a name descriptive of its kind, the name must correspond thereto.

**Meat Meal** – is the rendered product from mammal tissues exclusive of any added blood, hair, hoof, horn, hide trimmings, manure, stomach & rumen contents except in such amounts as may occur unavoidably in good processing practices. It shall not contain added extraneous materials not provided for by this definition.

# By-Products

## By-Product

## AAFCO Definition

**Meat By-Products** – is the **non-rendered, clean parts, other than meat**, derived from slaughtered mammals. It includes, but is not limited to lungs, spleen, kidneys, brain, livers, blood, bone, partially defatted low temperature fatty tissue, & stomachs & intestines freed of their contents. It does not include hair, horns, teeth & hoofs. It shall be suitable for use in animal food. If it bears name descriptive of it's kind it must correspond thereto.

**Meat By-Product Meal** – the same as Meat By-Products, except it is the **dry rendered product** derived from slaughtered mammals. It includes, but is not limited to lungs, spleen, kidneys, brain, livers, blood, bone, partially defatted low temperature fatty tissue, & stomachs & intestines freed of their contents. It does not include hair, horns, teeth & hoofs. It shall be suitable for use in animal food. If it bears name descriptive of it's kind it must correspond thereto.

**By-Product** – (Part) a secondary product produced in addition to the principal product.

# By-Products

Again, just because a product doesn't contain the word "By-Product" doesn't mean it isn't one. The following is a list of by-products & their everyday common name, that most of us use on a daily basis without hesitation. See how many of these by-products you have used or eaten yourself.

<u>By-Product</u>	<u>Common Name</u>
By-Product Dogs	Hot Dogs
By-Product Spread	Peanut Butter
By-Product Sandwich Meat	Bologna
By-Product Oil	Cooking Oil
By-Product Seafood Sticks	Fish Sticks
Cubed By-Product	Bouillon
By-Product Meat Tubes	Sausage
By-Product Soup	Broth
By-Product Gelatin	Jell-O
Frozen By-Product Treat	Ice Cream
Chicken by-product Nuggets	Chicken Nuggets

Now, how many items from the right column would you have chosen not to eat if they were known as the item on the left?

# Pet Food Labels

## Ingredient Panels:

- **Ingredients listed in descending order by weight**
- **Ingredient splitting – several different forms of same ingredient listed separately**
- **Meat first – can appear first due to higher moisture content than other dry ingredients**

**EXAMPLE 1:** Lamb, Ground Rice, Rice Flour, Rice Bran, Whole Brown Rice, Lamb Meal, Potato Protein, Poultry Fat (preserved with mixed Tocopherols, a source of Vitamin E), Rice Protein Concentrate, Natural Flavors, Pea Protein, Soybean Oil (preserved with mixed Tocopherols, a source of Vitamin E), Sunflower Oil (preserved with mixed Tocopherols, a source of Vitamin E), Potassium Chloride, Monocalcium Phosphate, L-Lysine, Salt, Choline Chloride, Egg Product, Dried Beet Pulp, Dried Kelp, Taurine, Vitamin E Supplement, Zinc Sulfate, Ferrous Sulfate, L-Ascorbyl-2-Polyphosphate, (source of Vitamin C), Copper Proteinate, Biotin, Niacin Supplement, Garlic Flavor, Potassium Iodide, Manganous Oxide, Calcium Pantothenate, Vitamin A Supplement, Vitamin B12 Supplement, Riboflavin Supplement (source of Vitamin B2), Thiamine Mononitrate (source of Vitamin B1), Pyridoxine Hydrochloride (source of Vitamin B6), Menadione Sodium Bisulfite Complex (source of Vitamin K activity), Folic Acid, Vitamin D3 Supplement.

**EXAMPLE 2:** Lamb Meal, Brewers Rice, Rice Flour, Ground Whole Grain Wheat, Ground Whole Grain Sorghum, Corn Gluten Meal, Cracked Pearled Barley, Animal Fat (preserved with mixed tocopherols and citric acid), Dried Beet Pulp, Soybean Oil, Chicken Liver Flavor, Flaxseed, Potassium Chloride, Iodized Salt, vitamins (L-Ascorbyl-2-Polyphosphate (source of vitamin C), Vitamin E Supplement, Niacin, Thiamine Mononitrate, Vitamin A Supplement, Calcium Pantothenate, Biotin, Vitamin B12 Supplement, Pyridoxine Hydrochloride, Riboflavin, Folic Acid, Vitamin D3 Supplement), Choline Chloride, Vitamin E Supplement, Taurine, minerals (Ferrous Sulfate, Zinc Oxide, Copper Sulfate, Manganous Oxide, Calcium Iodate, Sodium Selenite), preserved with Mixed Tocopherols and Citric Acid, Beta-Carotene, Rosemary Extract.



# Pet Food Labels

**Grain Splitting**: Is a term used when grains are split or broken down to create multiple ingredient listings. Since **ingredients have to be listed in descending order by weight** on all pet food labels, this process allows manipulated or split ingredients to be moved further down the list providing a more desirable ingredient to be listed earlier. Usually this is done to achieve a “Meat First” or “Meat Dominant” ingredient panel. This marketing technique can be used in grain free foods as well, in both cases creating a perception that they include more meat than carbohydrates.

## **Example A:**

Lamb Meal, *Ground Rice, Rice Flour, Rice Bran*, Sunflower Oil (preserved with mixed Tocopherols, a source of natural Vitamin E), Poultry Fat (preserved with mixed Tocopherols, a source of natural Vitamin E), Natural Flavors, Rice Gluten, .....

## **Example B:**

Chicken Meal, *Ground Rice, Rice Flour, Corn Gluten Meal, Rice Bran*, .....

In these examples rice has been split up to allow for a meat first ingredient panel, even though when processed, rice, (or a combination of other grains or carbohydrate sources), would be the most dominant ingredient. The underlined Gluten in both examples is the protein fraction of any grain, and is not considered part of **grain splitting**.

# Pet Food Labels

**Meat First**: Another marketing trick to acquire a “Meat First” ingredient panel is to weigh the ingredients before the water content is actually removed during processing. The following is an example of an actual pet food ingredient label with before & after processing measurements.

## What’s really in the diet?

### Meat First on the Ingredient Panel

Ingredient	Water %	Weight before Processing	Weight after Processing, Water Removed
15oz of chicken	70%	15	4.5
14oz of corn meal	10%	14	12.6
13oz of whole sorghum	10%	13	11.7
12oz of chicken meal	10%	12	10.8
11oz of whole barley	10%	11	9.9
Total ounces of meat after manufacturing			15.3
Total ounces of grains after manufacturing			34.2

# Pet Food Labels



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NN0043

## Nutritional Nuggets

Soundbites on Current Topics

### Common Terms?

Several pet food manufacturers use terms to describe their foods, some of which are legally defined and have force in law, and others which are purely marketing terminology without any valid definition under law.

Term	Legally Defined	Definition
Organic	Yes	According to the USDA – the term “Organic” may only be applied to pet food labels that follow USDA rules.  Look for this seal
Natural	Yes	According to AAFCO – the term “natural” requires a pet food to consist of only natural ingredients without chemical alterations. <sup>1</sup>
Holistic	<b>NO</b>	There is no legal definition of this term under laws devoted to pet foods. Any manufacturer can make claims of “holistic” in literature and brochures regardless of ingredients chosen.
Human Grade	<b>NO</b>	Claims that a product contains or is made from ingredients that are “human grade”, “human quality”, “people foods”, “ingredients you (the purchaser) would eat”, are false and misleading.... <sup>2</sup>

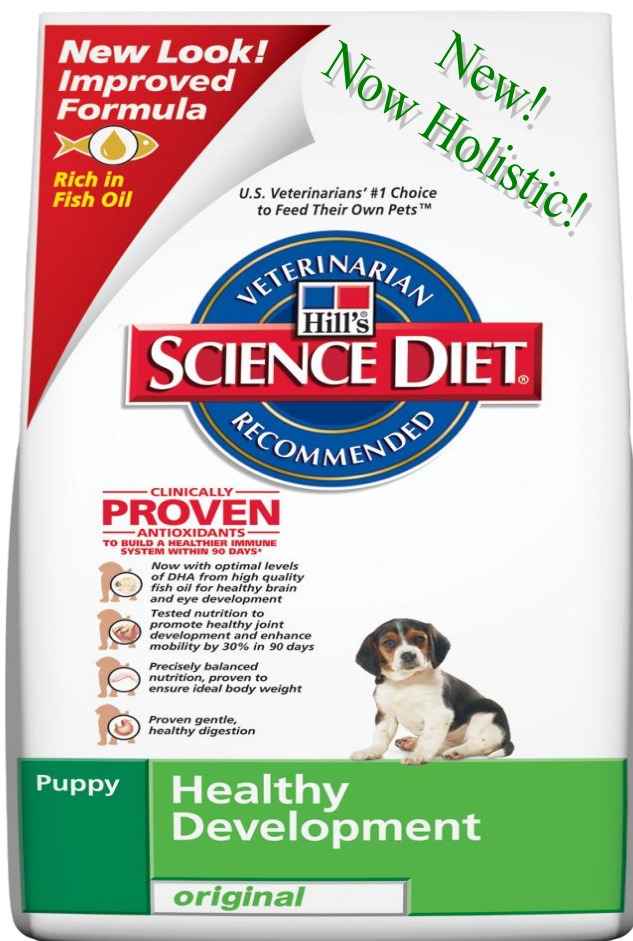
<sup>1</sup> 2010 Official Publication AAFCO pages 143-144, 319 (Official Feed Terms). <sup>2</sup> – see reverse page

- The Nugget above reflects 2 commonly used terms that have legal definitions & carry meaning when used on packaging. “**Organic**” is used to describe products with at least 95% of their ingredient base is organic, and these products must carry the “**USDA ORGANIC**” Seal.
- The Term “**Natural**” simply means that only **natural ingredients** are used in the production of this product without any chemical alterations.
- There is no proven nutritional advantage known to dogs & cats being fed a natural or organic food. This is a consumer choice, not a nutritional need.



# Pet Food Labels

- **Human Grade** has no legal definition, and is a commonly used term in pet food marketing, but **never** on the packaging, as AAFCO has defined such use as “false & misleading...”.
- **Holistic** is a great example of a misleading marketing term, used quite often to infer a benefit of some kind. However, without legal definition, this term carries no meaning. Hill’s would have to do nothing but change our packaging to market the bags shown below:



# Pet Food Labels

**AAFCO Statements:** Are required on all pet food labels. They are made up of two parts: The 1st is the **method** by which nutritional claims are made.

The **Formulation Method** or the **Feeding Trial Method**. The feeding trial method, though lengthy & more expensive, is the preferred method since the food is actual fed to the animal. This will usually confirm palatability & detect any nutritional deficiencies.



Technical Information Services

## Nutritional Nuggets

No: NN0132 AAFCO Feeding Trial

Soundbites on Current Topics

### AAFCO Feeding Trial vs. "formulated" food.

Pet food manufacturers can choose to either "formulate" a pet food, or use AAFCO's Feeding Trial data.

Required Procedures	AAFCO Feeding Trial	"Formulated"
Minimum of 30 dogs (cats) to establish colony average	YES	NO
Minimum of 8 dogs (cats) at least one year of age for each trial.	YES	NO
Same formulation must be used throughout test period.	YES	NO
Test must run a minimum of 26 weeks. (6 months)	YES	NO
Formulation shall be the sole source of nutrients, except water.	YES	NO
Daily food consumption must be measured.	YES	NO
Individual body weights shall be measured and recorded weekly.	YES	NO
Hemoglobin, packed cell volume, other blood chemistry tests done.	YES	NO
Thorough veterinary physical exam done twice during test.	YES	NO

**Pet foods that are "formulated" have no required testing to determine if the ingredients used are bio-available or digestible in the dog or cat.**

**Look for this statement on pet foods to insure feeding trials.**



**AAFCO Statement:** Animal feeding tests using AAFCO procedures substantiate that Science Diet® Adult Advanced Fitness Original provides complete and balanced nutrition for maintenance of adult dogs.



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Note: if there isn't an AAFCO statement, then the product is a supplemental product and NOT a pet food designed for long-term feeding!



# Pet Food Labels

**AAFCO Statements:** The 2<sup>nd</sup> part of the AAFCO statement is the **population** for which the product is intended, (Puppy, Adult, All Life-stages, etc). There are 3 basic descriptors used; **multi-purpose**, (growth & maintenance), **all life-stages**, or a **life-stage specific**, (adult dogs). With the understanding that puppies & kittens require higher nutrient levels than adults, any **multi-purpose** or **all life-stage** food would have to provide nutrient levels for the highest demanding life-stage, Puppy/Kitten, providing excesses for adults.



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## Nutritional Nuggets

Soundbites on Current Topics

### What Does AAFCO's "All Life Stages" Mean?

- If the AAFCO statement says "complete and balanced for all life stages"....
  - ✓ The pet food has to be suitable for puppies, kittens or pregnant/lactating adults – which means some of the nutrients may be at levels that are excessive for typical adult and older pets!
- Pets need food that's appropriate for their specific stage in life so they will receive adequate, but not excessive, amounts of important nutrients.
  - ✓ Puppies, kittens and lactating mothers need more protein, vitamins, and minerals than adults to ensure proper growth.
  - ✓ For typical adult dogs & cats, excess intake of certain nutrients may make some conditions worse. For example, excessive phosphorus intake worsens kidney disease, a condition that often goes undetected in its early stages.
  - ✓ AAFCO does not publish nutrient guidelines for older dogs and cats. However, foods for these pets should address changes in vital organ function that occur as animals mature.
- The AAFCO statement on pet food packaging verifies the product is nutritionally balanced for a designated life stage:
  - ✓ Growth, pregnancy/lactation, adult, or **all life stages**
- Many pet food manufacturers offer products for a pet's specific stage in life (e.g., adults).
  - ✓ Check AAFCO statements to make sure the food you are feeding your puppy or kitten is appropriate for growth. **And make sure the dog or cat food you choose for your adult pet is intended for adult maintenance, NOT all life stages.**
- Recommend Hill's® Science Diet® brand pet foods with confidence. You can be sure that Science Diet dog and cat foods **offer precise nutrition for particular life stages.**



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# Pet Food Labels

**Guaranteed Analysis:** This chart can be found on all Pet Food Labels & is intended to reflect Nutrient content. However, required by law, all the GA can show are minimums & maximums, & will never reflect 100% of the Nutrient Profile, leaving an unknown balance of any combination of protein, fat carbohydrates, vitamins or minerals. The example below is from an actual Dry Cat Food.

Nutrient		Cat
Protein (min)		28%
Fat (min)		11%
Fiber (max)		3%
Moisture (max)		10%
Ash (max)		7%
<b>Added Together Total</b>		<b>59%</b>

## **Guaranteed Analysis**

Not only does the G.A. still include the Water Content, but with **41% unknown** nutrients, just how comfortable do you feel with the 28% minimum Protein level claim? Could it actually be nearer to 60%?

The only way to get the exact 100% Nutrient content is to contact the Pet Food Manufacturer. Another thing to remember is that Hill's Pet Nutrition uses **Fixed Nutrient Formulas** in all of our pet foods. The food will be the same nutrient profile every time. Many other Pet Food Companies formulas may vary with each batch.



# Pet Food Labels

**Pet Food Designators:** AAFCO also defines & regulates product naming designators. However, they are all used to describe the products **prior to processing, with water included**. The 1<sup>st</sup> option below, (products that would be listed as “Beef” or “Chicken”) , it is very hard to find products that can meet this criteria.



Technical  
Information  
Services

## *Nutritional Nuggets*

No. NN0055

Soundbites on Current Topics

### **Understanding Pet Food Labels AAFCO Requirements\* for Naming Pet Foods**



\*AAFCO 2006 pg 120

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If pet food name says...	Pet food must contain at least % of named ingredient
Chicken, beef, seafood, etc (Ingredient without modifiers)	95%
Dinner, entrée, platter, etc (chicken dinner, beef entrée, seafood & beef platter)	25%
With (with chicken, with beef, with seafood etc)	3%
Flavor (chicken flavor, beef flavor)	No specific %, but ingredient list must disclose source of flavor



# Questions??

Still have questions or concerns?

- Contact Hill's at:
- Call Consumer Affairs  
1-800-445-5777
- Or visit our website  
[www.hillspet.com](http://www.hillspet.com)

