



# What consumer perceptions mean for your pet food formulations and ingredient choices

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## THE WALL STREET JOURNAL.

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# Pet-Food Brand's Image Bites Back Colgate

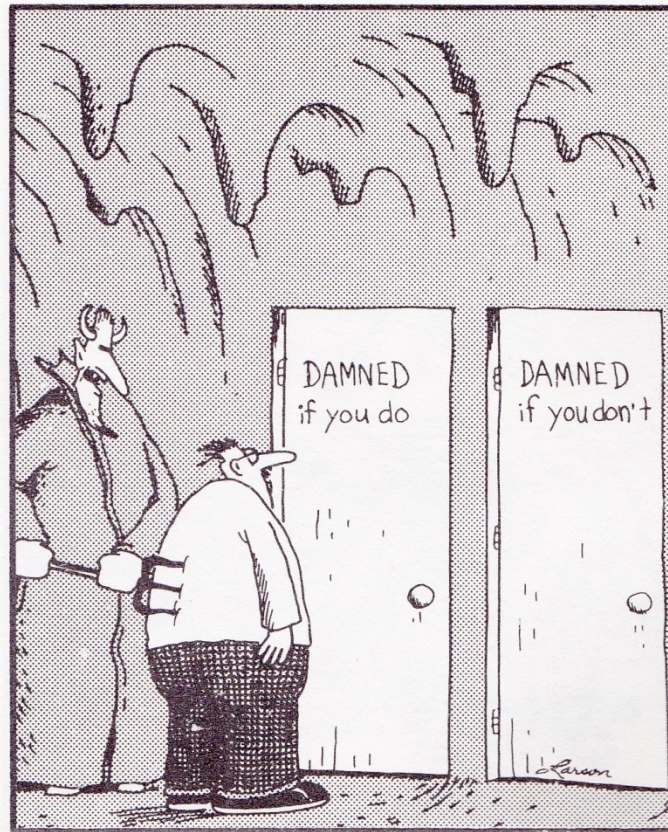
*Sales Decline for Science Diet Line as Dog and Cat Owners Increasingly Value Marketing Pitches Like 'Natural' and 'Wild'*

By SERENA NG

Colgate-Palmolive Co. has a problem when it comes to pet food. Its Science Diet brand doesn't appeal to pet owners the way it once did.



# So what do you do?



"C'mon, c'mon—it's either one or the other."



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## FEATURES

**Petfood**Industry

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# Dry Roots

*How we analyze and decide which foods belong in the top tier of quality – and which to feed to our own dogs.*

BY NANCY KERNS





# What to Look For

- **Lots of animal protein at the top of the ingredients list.** Ingredients are listed by weight, so you want to see a quality animal protein source at the top of the list; the first ingredient should be a “named” animal protein source.



# Lots of animal protein at the top of the ingredients list

- **Options**
  - Animal Meats
  - Animal Meals
  - Spray Dried Meats



# Lots of animal protein at the top of the ingredients list

- **Animal Meats**
  - High moisture content limits their use to roughly 18-20% of the formula although with certain equipment and ingredients one can go as high as 30%
  - Not all plants can handle/process meat
  - Significant yield losses due to moisture loss
  - Can enhance product palatability





# Lots of animal protein at the top of the ingredients list

- **Animal Meals**

- Care must be taken to avoid excessive levels of calcium in diets containing high amounts of animal meals



# Lots of animal protein at the top of the ingredients list

- Lamb Meal 7.0 – 11.5% calcium
- Venison Meal 9.0 - 11.5% calcium
- Pork Meal 8.5 – 10.0% calcium
- Turkey Meal 5.0 – 7.5% calcium
- Chicken Meal 3.0 – 6.5% calcium
- Fish Meals 2.0 – 7.0% calcium



# Finished product calcium of a formula containing 25% animal meal

- Lamb Meal 1.8 – 2.9% calcium
- Venison Meal 2.3 – 2.9% calcium
- Pork Meal 2.1 – 2.5% calcium
- Turkey Meal 1.3 – 1.9% calcium
- Chicken Meal 0.8 – 1.6% calcium
- Fish Meals 0.5 – 1.8% calcium

The AAFCO dog food max for calcium is 2.5%  
High calcium reduces diet digestibility.



# Lots of animal protein at the top of the ingredients list

- **Spray Dried (SD) Animal Meats**
  - Low ash high protein alternative to animal meals
  - Very expensive per unit of protein
  - Can be rehydrated for labeling purposes
    - So SD Chicken + water = Chicken



# What to Look For

- **A named animal protein.** Chicken, turkey, beef, lamb, venison or others. “Meat” is an example of a protein source of unknown origin and quality. Animal protein “meals” should also be from named species (look for “beef meal” but avoid “meat meal”).



# A named animal protein

- **Poultry Meal vs. Chicken Meal, Turkey Meal or Duck Meal**
- **Meat Meal vs. Lamb Meal, Beef Meal, Pork Meal or Venison Meal**



# What to Look For

- **An animal protein meal high on the ingredient statement when a fresh meat is first on the ingredient list.** Fresh (or frozen) meat contains mostly water so if meat is first on the ingredient list, another source of animal protein should be listed in the top three or four ingredients.



# **An animal protein meal in a supporting role when a fresh meat is first on the ingredient list**

- **Since meat is mostly (65-80%) water other sources of animal protein are necessary for the diet to be animal protein based**





# What to Look For

- **Whole vegetable, fruits and grains.** Fresh, unprocessed food ingredients contain natural nutrients including vitamins, enzymes and antioxidants. Don't be alarmed by one or two food "fractions" (a by-product or part of an ingredient like tomato pomace or rice bran) especially if they are low on the ingredient list.



# Whole vegetable, fruits and grains

- **Brown Rice vs. Brewers Rice**
- **Wheat vs. Wheat Gluten or Wheat Germ Meal**
- **Fruits and Vegetable**
  - Typically added as dried
  - Often “rehydrated” for labeling purposes



# Rehydrating fruits & vegetables

- CFR Sec 101.4(c) When water is added to reconstitute, completely or partially, an ingredient permitted by paragraph (b) of this section to be declared by a class name, the position of the ingredient class name in the ingredient statement shall be determined by the weight of the unreconstituted ingredient plus the weight of the quantity of water added to reconstitute that ingredient, up to the amount of water needed to reconstitute the ingredient to single strength.



# Rehydrating fruits & vegetables

- Blueberries are 84.21% water (USDA)
- Dried blueberries are 4.1% water
- $(100-4.1)/(100-84.21) = 6.07$
- So 1 lb. of dried blueberries is “equivalent” to 6.07 lbs. of whole blueberries
- Note you **can not** rehydrate blueberry pomace to blueberries, only dried blueberries



# Rehydrating fruits & vegetables

	Moisture (USDA)	Dry Moisture	Equivalents	Formula Percent	Real Fruit/Veggie/Meat Equivalent
Apples	85.56%	5.8%	6.52	0.000	0.00
<b>Blueberries</b>	<b>84.21%</b>	<b>4.1%</b>	<b>6.07</b>	<b>1.000</b>	<b>6.07</b>
Broccoli	50.00%	9.2%	1.82	0.000	0.00
Carrots	88.29%	14.6%	7.29	0.000	0.00
Cherries	82.25%	10.2%	5.06	0.000	0.00
Cranberries	87.13%	6.8%	7.24	0.000	0.00
Tomatoes	94.50%	20.2%	14.51	0.000	0.00
MS Chicken	69.29%	2.6%	3.17	0.000	0.00



# What to Look For

- **A “best buy” date that’s at least six months away.** A best by date that’s 10-11 months away is ideal; it means the food was made very recently.



# What to Avoid

- **Meat by-products or poultry by-products.** Higher-value ingredients are processed and handled under better conditions (kept clean and cold) than lower-cost ingredients (such as by-products) by the processors.



# What's in a Name?

- **Poultry By-Products**
  - Chicken Heads, Feet and Viscera
  - Chicken GIBLETS (liver, heart & gizzard)
  - Chicken Liver





# What to Avoid

- A **“generic” fat source** such as “animal fat”. This could be any fat of animal origin, including used restaurant grease and fats derived from roadkill. Poultry fat is not as bad as animal fat, but chicken fat or duck fat is better.



# What to Avoid

- **Added sweeteners.** Dogs enjoy the taste of sweet foods. Sweeteners effectively persuade dogs to eat foods comprised mainly of grain fragments (and containing little healthy animal protein).



# What to Avoid

- **Artificial colors, flavors or preservatives (i.e. BHA, BHT, ethoxyquin).**

Dogs don't see colors well so it doesn't matter to your pet.

Food should be flavored well enough when it contains sufficient meats and fats

- Note however almost all dry pet foods use digestes of some type to enhance palatability.

Natural preservatives, such as tocopherols (forms of vitamin E), vitamin C and rosemary extract can be used instead of synthetics.



# Other Consumer Wants

- **Human Grade**
  - Only a facility that produces human foods, and undergoes the inspections and approvals necessary have human grade status. So a pet food must be made in such a plant in order to be called “human grade”.
  - “Human grade” ingredients essentially lose their “human grade” status once they enter a pet food plant.



# Other Consumer Wants

- **Natural**

- Natural with added vitamins, minerals and other trace nutrients (must include in the disclaimer)
- The disclaimer appears with the largest or most prominent use of the term natural on each panel of the label on which the term appears
- All other ingredients must meet the AAFCO definition of natural
- Natural does not mean organic

**Basically any food without artificial flavors, colors or preservatives can be called “natural”**



PAW EDITOR'S NOTE PAW

## "No" Power

*By highlighting what their pet foods do NOT contain, some companies unfairly stigmatize certain ingredients.*

BY NANCY KERNS



# Other Consumer Wants

- **Grain-free**
  - Not supported by any data and largely a marketing campaign of various pet food companies
  - Many (but not all) “grain-free” pet foods have similar levels of carbohydrates as pet foods containing grains



# Other Consumer Wants

- **Gluten free**
  - Not supported by any data and largely a marketing campaign of various pet food companies
  - While some lines of Setters have a gluten sensitivity, in general gluteins are not potent allergens for pets
  - Technically only wheat, barley, rye and related grains contain gluten. Since corn does not contain gluten, corn gluten meal, despite the name, is “gluten free”





# Other Consumer Wants

- **Low Carb**

- Not supported by any data and largely a marketing campaign of various pet food companies
- Currently there is no official AAFCO definition for low carb diets so claims of this type are at risk
- Recent evidence suggests dogs differ from wolves in that they have more genes involved in helping digest carbohydrates
  - “We identify candidate mutations in key genes and provide functional support for an increased starch digestion in dogs relative to wolves. Our results indicate that novel adaptations allowing the early ancestors of modern dogs to thrive on a diet rich in starch, relative to the carnivorous diet of wolves, constituted a crucial step in the early domestication of dogs.”

**Axelsson et al 2013. The genomic signature of dog domestication reveals adaptation to a starch-rich diet. Nature**



# Other Consumer Wants

- **No corn**
  - Not supported by any data and largely a marketing campaign of various pet food companies
- **No wheat**
  - Not supported by any data and largely a marketing campaign of various pet food companies. Wheat allergies are sometimes seen in dogs however the incidence is very small



# Other Consumer Wants

- **No Soy**
  - Not supported by any data and largely a marketing campaign of various pet food companies
  - While soy is an excellent source of protein and essential amino acids, high dietary levels of some types of soy can cause loose stools in dogs due to hind-gut fermentation



# Other Considerations

- **Use existing labeling regulations to your advantage whenever possible and explain why those scary sounding ingredients are in your food**

... Pyridoxine hydrochloride...

vs.

... Pyridoxine hydrochloride (Vitamin B<sub>6</sub>)...

... Ferrous sulfate ...

vs.

... Ferrous sulfate (a source of iron)...



# Thank You

# Questions?

## EVOLUTION OF A FACT

WILD GUESSES CAN BE TRANSFORMED INTO BUSINESS FACTS THROUGH THE MIRACLE OF COMMUNICATIONS.



STEP ONE: WILD GUESS

I DUNNO... IT COULD BE ANYWHERE FROM ONE TO A MILLION.



STEP TWO: RUMOR

THEY SAY IT COULD BE A MILLION.



STEP THREE: FACT

EXPERTS SAY ONE MILLION.



S. Adams