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SPECIAL REPORT

Consumer Activists and Their Impact on the Pet Food Industry

Highly connected and bent on exposing potential injustice, many impassioned pet owners have become a source of concern for pet food manufacturers. However, through cooperation and information, consumer activists can number among a company's greatest allies.

by Robert J. Silver, DVM, CVA



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In the approximately 150-year history since the beginning of commercial pet food manufacturing, there have always been consumers with complaints. However, it is only since the massive pet food recall of 2007 that some consumers with complaints have transformed into aggressive "consumer activists," angry about their own pet(s) that may have suffered, and about the many pets that died or became deathly ill from the recalled pet foods. These angry consumer activists are out to "take down the industry" by proving pet food manufacturers are greedy and dishonest.

Why did the pet food recall of 2007 mobilize these activists when other recalls did not? Industry experts believe due to the Internet and social media, pet owners were able to bond together against a perceived enemy—the pet food industry—and influence many consumers, who became afraid to feed their companion animals anything manufactured.

Rather than see the 2007 recall as a problem arising from inadequate overview of imported pet food ingredients, consumer activists see it as an example of the greed of pet food manufacturers "looking the other way" and allowing the addition of cheap non-food ingredients without regard for the health of the animals that were consuming these foods.

As a result of this "perfect storm" of adulterated foreign ingredients and the increased ability of the consumer to share and communicate fears about pet foods via chat rooms, email lists, social media and consumer activist websites such as change.org, there has been a marked increase in consumer vigilance and activism regarding the safety of pet food.

The pet food recall caused the pet food buyer to become very wary of foods containing non-domestically-sourced ingredients, especially if these ingredients are of Chinese origin. Many consumers have learned to inspect pet food labels very carefully, and to reject products containing non-domestic sources of ingredients.

The attention the pet food buyer pays to the details of the pet food label has created a host of other ingredient-related issues such as pet-food grade vs. human grade, grains, carrageenan, canola oil, ethoxyquin and other preservatives,

gluten meal, meat and bone meal, animal digest and other added flavorants, and, most recently, genetically engineered (GE) ingredients; glutinous grains such as corn, barley and wheat; and non-organic ingredients in general.

At truthaboutpetfood.com, Susan Thixton, the website creator and owner, and the most visible of the pet food activists, lists the issues she believes makes pet food dangerous. Having lost a pet during the 2007 recall, Thixton is out to change the pet food industry. Her book, "Buyer Beware," details problems with the pet food industry; on petsumerreport.com, she reviews pet foods; and she also is the founder of the Association for Truth in Pet Food.

Thixton collaborates with two other activists. One is Mollie Morrissette of poisonedpets.com, which focuses mostly on feline problems with manufactured

pet food. Morrissette lost a cat to feline urologic syndrome, which is considered diet-associated. She nearly lost a 3-week-old kitten to Fading Kitten Syndrome, an idiopathic condition affecting kittens of weaning age. The story is Morrissette bargained with God to save the life of the kitten—in exchange for devoting the rest of her life to helping animals—and the kitten immediately revived.

A retired holistic veterinarian with a passion for feline health and nutrition, Jean Hofve, DVM, educates cat owners through her website, littlebigcat.com, and has worked with the Pet Food Institute (PFI). She also collaborates with Morrissette and Thixton.

The three are working together to educate the pet-owning public about the potential hazards of pet food. Each of these activists has committed to make pet food safer. Thixton calls herself the "Caped Crusader for Safe Pet Food"—complete with a caricature of herself in a Wonder Woman-like red outfit with a cape—out to make the world of manufactured pet food safe from the evil-doers of the pet food industry.

On her site, Morrissette takes aim at pet food marketing: "What the ads don't show you are the horrors of rendering plants, where barrels stuffed with the lifeless bodies of cats and dogs, swarming with flies and crawling with maggots, are dumped into vast

grinders, collars still attached, to be ground into a bloody pulp and made into the food [your] pets are now eating. This is the story behind the glossy advertisements and colorful packaging, the ugly truth behind the pet food industry, one that will forever change the way you look at pet food again."

In January 2014, Thixton and Morrissette were invited to attend the Association of American Feed Control Officials (AAFCO) midyear conference as consumer representatives and non-voting advisors on the Pet Food Committee and Ingredient Definitions Committee. On her blog, Morrissette wrote, "It is

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The attention the pet food buyer pays to the details of the pet food label has created a host of other ingredientrelated issues such as pet-food grade vs. human grade, grains, carrageenan, canola oil... empowering to realize after our efforts, Susan and I were finally ablemicrophones poised in our direction- [to] address the committee with any questions or concerns we might have."

Morrissette was also in Sacramento, California, for the December 2013 FDA Food Safety Modernization Act (FSMA) public meeting, "Proposed Rule to Establish Current Good Manufacturing Practice and Hazard Analysis and Risk-Based Preventive Controls for Food for Animals." In a public statement at the meeting, she contended FSMA still allows for adulterated material in animal food.

For these activists, being included—at least in the discussion, if not the decision-making process—is a victory that lends credibility to their own work, and gives them a level of input into the process regulating the safety of pet foods. Anger arises when consumers are denied pertinent information or a perception of control.

Morrissette blogged about the sense of empowerment she and her cohorts felt. Simply allowing the activists to engage in the process helped redirect their energy toward finding workable solutions within the system. In the end, allowing pet food activists to see how regulatory agencies work can reduce their stridency. By giving these activists an opportunity to work within the system, pet food manufacturers may be able to better reduce negative consumer-driven pet food publicity campaigns.

Ingredients under Fire

A handful of pet food ingredient issues are among the most frequently publicized by consumer activists in their books, public appearances and websites.

1. Ethoxyquin

Consumer Activist Position:

FDA has not approved natural antioxidant preservatives such as vitamin E for fish meals in pet food, even though they are considered to be effective and safe. FDA has continued to approve the use of ethoxyquin as a preservative for fats in pet foods and especially for fish meal. When ethoxyquin is added to an ingredient the pet food manufacturer buys from a third party, ethoxyquin does not need to be listed on the pet food label. Ethoxyquin has been shown to be carcinogenic, and to cause damage to the liver and kidneys.

The Evidence:

Ethoxyquin is a phenolic antioxidant, such as BHA and BHT, and was originally developed by Monsanto to prevent rubber from cracking due to oxidation. It was also found to protect against lipid peroxidation and to stabilize fat-soluble vitamins. At concentrations normally higher than found in pet foods, some

adverse biological effects of ethoxyquin have been described, including pathology to the liver and kidneys, and carcinogenesis. Dogs are known to be particularly sensitive to ethoxyquin. Due to adverse effects in dogs reported to FDA in 1988, FDA has limited the amount of ethoxyquin that can be added to pet food at 150 ppm.

In a review of scientific data, David Dzanis concluded, "No studies could be found in the literature to support the contention that ETQ [ethoxyquin] is responsible for the plethora of toxic effects as reported by dog owners to FDA."¹ He also cited a one-year chronic toxicity study in dogs, where "no observable

effect level" was noted at 3 mg/kg/d (120 ppm) five out of seven days of the week. Monsanto conducted a five-year multigenerational study that failed to demonstrate adverse effects at 300 ppm in the pet food.²

A recent review article stated ethoxyquin has little acute toxicity, ith LD_{50} values quite high (1,700 mg/kg). Most of the safety Whe

with LD_{50} values quite high (1,700 mg/kg). Most of the safety studies were based on giving a single dose and observing its effects. In longer-term studies, the level of 100 ppm (2.5 mg/kg/d) was considered to be a minimal-effect level for clinical signs of toxicity and liver enzyme elevation in dogs.³

Comments:

A number of studies on ethoxyquin have found potentially adverse biological effects at small daily doses as compared to the large LD_{50} doses used in acute toxicity studies. Based on this information, ethoxyquin can be a potential problem when fed for long enough periods of time to susceptible animals, even though some studies indicate it is a safe food additive.

Diets with fish meal, which are becoming more common in dogs with food allergies, need to be limited, due to the higher amounts of ethoxyquin normally found in the fish meal. Consumers looking for a safer form of fish meal may choose to seek a manufacturer that uses vitamin E as a preservative and avoids ethoxyquincontaining fish meal ingredients.

2. Carrageenan

Consumer Activist Position:

Carrageenan has been shown in laboratory animals to potentially cause cancer and inflammation. It has been prohibited for use in infant formulas by the European Union (EU).

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The Evidence:

Carrageenan is a common food additive extracted from the edible red seaweed *Chondrus crispus*, also known as Irish Moss. It contains polysaccharides, like many other seaweeds that are gelatinous in nature, and is used as a food thickener.

In pet foods, carrageenan helps to provide the thicker consistency found in many canned diets. Carrageenan is a large molecule, and is considered to be "non-degraded." Poligeenan, also known as "degraded" carrageenan, has been found to be pro-inflammatory, and to potentially increase bowel inflammation and increase leaky gut problems. It has been implicated as having a role in producing precancerous lesions in experimental animals. This smaller, proinflammatory molecule can be present with carrageenan, or can be derived from the breakdown of carrageenan.

The evidence is conflicting to support a causal role in cancer, other than in experimental animals and in vitro.^{4, 5}

The EU prohibits adding undegraded carrageenan in infant formulas for very young babies, but considers it safe for use in formulas for older infants.

Comments:

Due to the potential for carrageenan to contribute to gastrointestinal inflammation, it is recommended it be avoided in those people and pets with inflammatory bowel disease, other chronic inflammatory diseases or cancer.

3. Canola Oil

Consumer Activist Position:

In research studies, canola oil has been associated with cardiac fatty infiltration, and has increased hypertensive events in rats bred to be hypertensive. Rats fed canola oil also showed organ degeneration. People taking canola oil have had increases in allergies. FDA doesn't allow canola oil in infant formula, which makes it of questionable safety for pets. Additionally, canola oil was created through genetic engineering, and has been approved for use as an approved pesticide in the United States by the Environmental Protection Agency (EPA).

The Evidence:

Canola oil was genetically bred from the rapeseed plant, *Brassica napus*, in the mid-1970s in Canada to produce a plant containing lower amounts of erucic acid—a monounsaturated omega-9 fatty acid linked to health concerns when consumed in high amounts. Rapeseed has a naturally high level of erucic acid (30 to 60 percent). The result of the natural plant breeding created a low erucic acid content (less than 2 percent) seed, which is what canola oil is manufactured from. Levels of erucic acid for canola oil sold in the United States average 0.5 to 1 percent, which is 30 to 60 times lower than that of rapeseed oil.

Erucic acid has been associated with heart lesions in laboratory animals. For this reason, until the erucic acid content of the plant was reduced, rapeseed oil was only used in the United States as a lubricant for naval ships during World War II. Rapeseed oil, when overheated to higher than 180°C during cooking, also increases the risk of lung cancer due to carcinogens created from the heating of the oil.

Canola oil contains both alpha linolenic acid, an omega-3 fatty acid, and oleic acid, an omega-9 fatty acid, which is resistant to higher temperatures when cooking. Canola is considered to be a healthy oil due to its omega and low saturated fat content, and it's been shown to help with hypercholesterolemia in humans.

Canola oil is approved for use by the EPA as an insecticide, as are other oils such as soy, due to the fact that these oils will clog the spiracles (pores) on insects and cause them to suffocate.⁶



Comments:

Canola oil is not rapeseed oil, due to the fact that it has substantially lower amounts of erucic acid in it. When canola oil is refined, the problems associated with the carcinogens released from high-temperature cooking have also been eliminated. Originally, canola oil was genetically bred from rapeseed oil the "old-fashioned" way, and thus, was not genetically engineered (GE). However, modern canola oil has been subjected to gene insertion and modern genetic modification, such that 85 percent of canola oil sold in the United States today is also genetically modified (GM).

4. Meat and Bone Meal

Consumer Activist Position:

According to Thixton, FDA allows the pet food industry to violate federal food safety laws. Meats rejected for use in human foods are allowed to become pet food ingredients (without stating such on the pet food label). This includes (but is not limited to) drug-filled meat tissues, cancerous tissues, diseased animals, and filth- or feces-contaminated foods.

She writes that the AAFCO definition of "meat and bone meal" ingredient is almost identical to that of "animal by-product meal," except it's required to be sourced from mammals, whereas animal by-product meal would be sourced from one specific species of animal, such as beef- or venison by-product meal.

Meat and bone meal could consist of a large amount of bone (some science links high levels of bone in meal ingredients to bone cancer), as well as any part or combination of parts from any mammal, excluding hair, hoof, hide, manure, stomach and its contents. The official definition does not include the requirement

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Modern canola oil has been subjected to gene insertion and modern genetic modification, such that 85 percent of canola oil sold in the United States today is also genetically modified (GM). of sourcing from slaughtered animals (can include animals that have died prior to slaughter—illegal per federal law for human and animal foods—such as euthanized animals and/or animals that have died in the field) and does not state "suitable for use in animal food." FDA testing found this ingredient to be likely to contain euthanized animals.⁷

The Evidence:

In the 1990s, firsthand reports and secret videos surfaced of behind-the-scenes looks at rendering plants—showing the carcasses of dogs and cats being shoveled into the rendering pit. Videos also showed dead dogs found by the roadside being brought to rendering plants. Rendering plants take the processed bodies and sell them to pet food companies or for industrial uses.

Consumer activists would be correct in stating, based on the AAFCO ingredient definitions, the rendered remains of dogs, cats, horses and other mammals are allowed in pet food. The rendered remains are less expensive sources of nutrients than single species slaughtered for the purpose of manufacturing pet foods. The ingredient definition of "meat and bone meal" includes rendered remains; however, ingredient definitions that describe the species from which the meat was derived do not contain these remains.

And Thixton is correct about FDA testing for the remains of dogs, cats and horses in pet food in 1998 and again in 2000. However, FDA did not detect the remains of pets in pet food. FDA developed a sensitive polymerase chain reaction (PCR) test to detect the DNA of dogs, cats and horses in commercial pet foods— sensitive enough to detect 5 pounds of rendered remains in 50 tons of finished feed. FDA then tested a variety of pet foods that had tested positive for pentobarbital (see next ingredient analysis) for these DNA remnants, and were unable to detect any. In its summary, FDA notes: "Presently, it is assumed that the pentobarbital residues are entering pet foods from euthanized, rendered cattle or even horses."⁸

Comments:

Claims regarding the presence of diseased or euthanized pets in pet food are disturbing, regardless of whether the use of these materials reduces the cost of the pet food, allowing more pets to be fed. Higher-priced pet foods do not contain rendered remains, based on the AAFCO ingredient definitions.

Veterinary nutritionists commonly claim it's not the ingredient, it's the nutrient they are looking for when designing a "complete and balanced" pet food. This means whether the protein comes from a rendered dog or a T-bone steak, it can have the same value as protein in a recipe. Most consumers do not understand this approach, and view pet food ingredients as indicative of the quality of the pet food.

5. Pentobarbital in Pet Food

Consumer Activist Position:

The dog food, cat food and pet treat ingredients "meat and bone meal" and generic "meat meal" are considered by FDA to be "high risk" and to contain pentobarbital from the euthanized bodies of dogs, cats and horses whose remains were rendered.

The Evidence:

In the same series of studies performed by FDA on dog food samples collected in 1998 and 2000—where they were unable to find any DNA from pets—they did find low levels of sodium pentobarbital, a barbiturate agent commonly employed in the euthanasia of dogs, cats and horses. The amount found was

quite small, and the researchers concluded the amount of pentobarbital present was probably from the rendered remains of cattle and horses. FDA initiated the study based on complaints from veterinarians that pentobarbital had been losing its potency in their small animal patients. This could happen from exposure to small amounts of pentobarbital, which upon exposure, induces the liver to increase regulation of the enzymes that degrade pentobarbital, thus reducing its potency. FDA also concluded the amount of pentobarbital found in the food was insufficient to induce these liver enzymes.⁸

Comments:

Although the data appear to be solid, some of the researchers' conclusions don't make sense. For instance, it is rare to euthanize cattle with pentobarbital. Horses are euthanized only slightly more frequently than cattle with pentobarbital. Yet almost all dogs and cats euthanized in shelters are killed with pentobarbital. If anything, this is a comment on the huge number of unwanted pets that wind up abandoned in shelters and put to sleep.

Benefits of Playing Offense

In an increasingly connected world, it's impossible for companies to hide facts from the consumer. And, as more companies realize the marketing value of social media, it's possible this sort of consumer activism could get worse. It therefore behooves each pet food manufacturer to establish a protocol for handling activist issues before they become a problem.

One route may be following the lead of the regulatory agencies in granting selected activists a voice. Based on the blogosphere, it appears the activists who were given access to the regulatory meetings experienced a "tempering" of their anger. So, in spite of fears that too much knowledge can be a dangerous thing,

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It's possible this sort of consumer activism could get worse. It therefore behooves each pet food manufacturer to establish a protocol for handling activist issues before they become a problem. it seems a certain amount of "transparency" with the consumer can be a good method of reducing the potential for complaints.

Pet food manufacturers should also listen to activists to see if their complaints contain any truth—as often times, they do. This may provide an opportunity to make changes in food recipes, labeling and marketing to address the activist issues. Certainly 10 years ago, who would have predicted "grain-free" would hold such cache with the consumer? Yet today, it's unusual to find a company that doesn't have at least one grain-free food offering. The same can be said about foods advertising the use of natural preservatives instead of ethoxyquin. Due to complaints by consumers, many pet foods are now "naturally preserved."

Interestingly enough, many pet food formulations have arisen from consumer demand—regardless of their relevance to the animal kingdom. For instance, some consumers are obsessed with providing their pets high-protein, low-carbohydrate foods, even if their pets have no nutritional need of it. Recently, a few "progressive" pet food companies have been labeling some of their foods "gluten free," "organic" or "human grade." All these issues arose from the consumer sector, resulting from the "*humanization*" of pets. The manufacturers at the leading edge of this market curve are making changes in their range of offerings, and benefiting from increased sales for these specialty foods. (See pages 3-4 of the SupplySide Animal Nutrition Insights July 2013 Report, "*Animal Nutrition Market Poised for Growth*.")

At the end of the day, when pet owners open that bag or can, they simply want to know the food they are feeding their animals is both safe and healthy. If pet food manufacturers want to continue selling their foods to the public, they should look to consumers to guide them in addressing "activist issues." This will help the pet food manufacturer and retailer increase their market share. Rather than being feared or dreaded, consumer activism should be seen as an opportunity for pet food companies to measure the pulse of the consumer—and respond in such a way so as to increase sales and consumer satisfaction at the same time.

Robert J. Silver, DVM, CVA, is a 1982 graduate of Colorado State University's College of Veterinary Medicine. He pioneered the use of diet, herbs and nutraceuticals in his small animal integrative practice in Boulder, Colorado, for the past 25 years. Silver is chief medical officer of <u>RxVitamins for Pets</u>, an animal nutraceutical company, and has authored the <u>holistic-cancer-vet.com</u> website to provide evidence-based information to people whose pets have cancer. He writes and speaks both domestically and internationally to veterinary audiences on the value of blending holistic modalities with conventional medicine, and is a consultant to the pet food industry.

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