

# Mysterious Genetic Material Found in 6 Brands of Pet Food

Purchased on Chewy.com, these six foods were analyzed using whole genome sequencing. And what this team found hidden in all six products was appalling: undeclared species of both animals and plants. Not only do these pet foods not meet label claims, they pose a potential risk to health.

**Analysis by [Dr. Karen Shaw Becker](#)**

## STORY AT-A-GLANCE

- A recent study examining genetic material in six dog food brands revealed the presence of undeclared species of both animals and plants
- Undeclared inclusions/ingredients in pet food mean that not only is the marketing and labeling of such products false, but more importantly, their presence has the potential to compromise the health of pets who are fed the diets
- According to earlier studies, pet food is commonly mislabeled, containing ingredients not on the label and/or not containing ingredients listed on the label
- If you're fed up with Big Pet Food, there's no time like the present to begin providing your furry family member with a safe, nutritionally balanced, species-specific fresh diet

A University of New Mexico study examining genetic material in six dog food brands uncovered the presence of undeclared species of both animals and plants in all six products. And in the majority of cases, the "surprise" species contradicted marketing and labeling claims — including grain-free claims — of the diets. The study results were published in January 2023 in the journal ACS Food Science and Technology.<sup>1</sup>

## Undeclared Plant/Animal Species May Pose a Health Risk

According to the study researchers:

*"Chicken species and wheat species were judged as present in all tested dog foods, though two dog food samples were declared not to contain chicken and five were declared to be grain-free."*<sup>2</sup>

As noted by writer Tim Wall in PetfoodIndustry.com, it's not just that the marketing claims in these instances are false, but more importantly, the presence of undeclared inclusions could affect the health of dogs fed the diets.

*"Pet owners may look for specific formulations to avoid ingredients that cause allergic reactions in their dogs," writes Wall. "While the genetic analysis only identified the DNA of specific species, allergens could also be present."*<sup>3</sup>

*"It is not the DNA that is causing allergic reactions," study co-author Jeremy Edwards, chemistry professor at UNM clarifies. "But, if the DNA is present then the allergens are also likely present."*<sup>4</sup>

It's important to note that the quantity of allergens in the foods is unknown and may not rise to the level required to trigger an adverse reaction.

## **Genetic Sequencing Isn't Used in the Manufacture of Pet Food**

The six dog foods the UNM researchers tested were purchased on Chewy.com, and the team used whole genome sequencing to identify the species present in each formula. According to Wall, the technique involves extracting DNA from a sample, fragmenting it into smaller pieces, and then using genetic sequencing machines to determine the genetic codes of the fragments.

The resulting data is then analyzed and assembled to reconstruct the complete sequence of the genome. Once this is accomplished, the DNA can be compared to reference databases of known species' genomes.

Whole genome sequencing, while used with other foods, isn't typically applied to pet food. While pet food producers could use the technique as a quality control step, according to Edwards, it requires specialized equipment and trained scientists, both of which may be obstacles to its use in pet food applications.

## **'Mystery' Ingredients in Pet Food Are Nothing New**

The problem of undisclosed inclusions/ingredients in pet food isn't new. One example: a 2015 study conducted at Chapman University in Orange, California raised serious concerns for every pet parent who depends on accurate ingredient listings on pet food labels.<sup>5</sup> For the study, over 50 dog and cat diets were examined for evidence of "food fraud." According to Dr. Rosalee Hellberg, co-author of the study:

*"Although regulations exist for pet foods, increase in international trade and globalization of the food supply have amplified the potential for food fraud to occur.*

*With the recent discovery of horsemeat in ground meat products sold for human consumption in several European countries, finding horsemeat in U.S. consumer food and pet food products is a concern, which is one of the reasons we wanted to do this study."*<sup>6</sup>

The Chapman study tested 52 commercial dog and cat foods to determine what meat species were present, and any instances of mislabeling. For each product, DNA was extracted and tested for 8 types of meat: beef, goat, lamb, chicken, goose, turkey, pork, and horse.

## **Of the 52 Products Tested, 20 Were Mislabeled**

A majority of the pet food tested by the researchers contained chicken, followed by pork, beef, turkey, and lamb, in that order. A few of the formulas contained goose; none contained horsemeat. Of the 52 products tested, 20 were "potentially" mislabeled, and one contained a non-specific meat ingredient that could not be verified.

Of the 20 mislabeled products, 13 were dog food and 7 were cat food. Of the 20, 16 contained meat species that were not listed on the product label, with pork being the most common unlisted ingredient. In three cases, one or two meat species were substituted for other meat species.

The Chapman researchers concluded that while pet foods are regulated by both federal and state entities, it's clear that mislabeling is occurring, though how it's happening, and whether or not it's intentional is unclear.

## What to Do if You're Bothered by Misleading Pet Food Labels

In a 2012 report, 48% of tested dog food was mislabeled.<sup>7</sup> In the Chapman University study, 38% of tested pet foods were mislabeled. That's a truly disturbing amount of mislabeled pet food, and even more frustrating is that neither study revealed the names or manufacturers of the mislabeled products.

If you're concerned about the ingredients in your pet's food — perhaps you have a dog or cat with allergies or who requires a novel diet to treat **food sensitivities** or bowel disease — you can try contacting the pet food manufacturer to ask how, and how often, they verify the authenticity of their ingredients. A few questions to ask:

- Do you apply hazard analysis and critical control point (HACCP) procedures to avoid product adulteration and contamination?
- Do you require your ingredient suppliers to verify the source, type and species content of grains and meals, meats and other raw materials used to make your products?
- Do you check the quality of new suppliers by carefully examining their products, demand third party purity testing and test them yourself, as necessary?
- Do you keep records of the receipt and use of each ingredient in your products?
- What measures are in place in your production facility to prevent ingredient confusion and cross-contamination? What other foods are manufactured in the facility that makes your pet food?
- Do you participate in third party transparency testing (such as **Check Your Pet Food**) and can you email me the results?

## If You've Lost Trust in the Ultraprocessed Pet Food Industry

Thanks to mislabeled products, low-grade ingredients, too-frequent recalls, and an exploding population of pets with chronic digestive issues, allergies and degenerative disease, it's no wonder so many pet parents are exploring **homemade diets**, fresh food diets made by smaller, transparent pet food producers, **raw diets** and other alternatives to the dead, rendered, dubious, ultraprocessed feed-grade "fast food."

My advice? Search this website for more information on choosing the best diet for your pet. There are videos and articles here that can help you become more knowledgeable about pet nutrition so that you can make the best diet choices for your own dog or cat. You can also learn what real transparency in pet diets looks like by ordering the **Truth About Pet Food 2023 List**.

If you want to help change the deceptive practices occurring in the pet food industry, I recommend becoming a member of the **Association for Truth in Pet Food**, which is the only organization out there committed to holding the regulatory agencies and AAFCO accountable. You can also check this **list** for the pet food companies that have taken the ingredient transparency pledge. When in doubt and if needed, consider making your pet food yourself, so you know exactly what ingredients you're feeding your dog or cat.

## Sources and References

<sup>1,2</sup> [Zhu, X. et al. ACS Food Sci. Technol. 2023, 3, 1, 50–60, Publication Date: January 6, 2023](#)

<sup>3,4</sup> [PetfoodIndustry.com, April 20, 2023](#)

<sup>5</sup> [Food Control, Volume 50, April 2015, pages 9-17](#)

<sup>6</sup> [Phys.org, October 1, 2014](#)

<sup>7</sup> [PetfoodIndustry.com July 31, 2012](#)

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