PERCEPTION IS NOT REALITY

SOYBEAN HULLS

Pet food manufacturers seeking a fiber source for foods and treats should be considering soybean hulls. Soybean hulls are widely-available as a roasted, ground co-product of the soybean oil extraction process. Soybean hulls are economical considering their price is generally 8- to 10-fold lower than common fiber sources like beet pulp. Despite their low cost, soybean hulls are rarely used in pet products because of negative consumer perception. This perception is based on the assumption soybean hulls are low-cost, inert filler that provide no nutritional value to dogs or cats. However, contrary to consumer perceptions, recent research demonstrates soybean hulls are nutritionally equivalent to beet pulp when part of nutritionally complete dog and cat foods.

Adult dogs fed an extruded food containing 15% soybean hulls produced stool characteristics and nutrient digestibility values that were similar to a food with 16% beet pulp but not to a food with 10% cellulose. Soybean hulls and beet pulp also resulted in similar profiles of fermentative end-products implying comparable hind-gut fermentation of both fiber sources when consumed by dogs.

A study using adult cats also showed sufficient fermentative capacity permitting cats to effectively use foods with 14% soybean hulls or 15% beet pulp compared with a food containing 10% cellulose. As obligate carnivores, cats are generally more limited in their capacity to use dietary fiber. However, study results showed comparable stool quality, nutrient digestibility and fecal fermentative end-products for soybean hulls and beet pulp when used as fiber sources in extruded cat foods.

The ability of dogs and cats to utilize soybean hulls and beet pulp is linked to fiber composition and hind-gut fermentation capacity. Both fiber sources contain similar levels of total dietary fiber with beet pulp containing more soluble fiber. Despite differences in soluble fiber content, soybean hulls and beet pulp are fermented equally by intestinal microbiota. Beet pulp is classified as a moderately fermentable fiber and is generally considered the gold standard fiber source for pet foods. Therefore, observed similarities in nutritional value for soybean hulls and beet pulp imply the functional fiber in soybean hulls provide the same nutritional health benefits as beet pulp.

Pet food manufacturers are continually challenged to recognize and address consumer expectations about ingredients used in pet foods. Unfortunately, these expectations may be based on misinformation and misunderstandings that can be traced back more than 25 years ago. The misinformation is a self-induced issue for the pet food industry caused by marketing campaigns creating points of differentiation with competitive products by disparaging certain ingredients. These campaigns falsely claimed fiber as a non-nutritive filler.

Ingredients long known to be nutritious and appropriate for dogs and cats continue to be unfairly and falsely criticized as inferior or problematic ingredients. As an outcome, manufacturers must identify alternative, non-traditional ingredients to meet changing market needs and consumer expectations. While these non-traditional ingredients may be popular and trendy with today's pet owners, many are not supported by scientific data from well-controlled research studies using dogs or cats.

Results of the comparative feeding studies clearly refute the misconception that soybean hulls are inert and non-nutritive. Soybean hulls contain functional fiber that is fermented by intestinal microbiota to provide nutritional health benefits comparable to beet pulp, the gold standard fiber in pet foods. These findings must be leveraged to correct the misconceptions while educating consumers about the nutritional value of soybean hulls for dogs and cats.

Soybean hulls should be considered by pet food manufacturers when seeking an alternative ingredient to reduce formulation costs while maintaining nutritional quality of their products. Contrary to public perception, research demonstrates soybean hulls, like beet pulp, provide the nutritional health benefits desired by pet owners for their dogs and cats. Soybean hulls are a prime example that perception is not always reality when considering the nutritional value of ingredients for dogs and cats. Perhaps these research results represent the beginning of a new paradigm in which soybean hulls are the new gold standard.

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