

HOT TOPIC

By-products



In focus

By-products are a nutritious ingredient, but pet owners may perceive that pet foods containing by-products are low-quality.

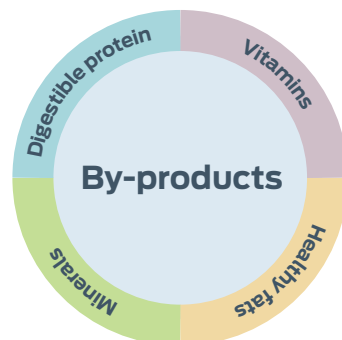
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What are by-products?

Regulatory authorities characterize by-products as all the non-muscle, edible parts of an animal. According to The American Association of Feed Control Officials (AAFCO) and the European Pet Food Industry Federation (FEDIAF), hide, horns, teeth, hoofs, claws, beaks, intestinal contents and feathers from poultry cannot be included in by-products.^{1,2} Poultry feathers, however, can be made into a digestible protein called Hydrolyzed Feather Meal or Hydrolyzed Poultry Protein by AAFCO standards.¹



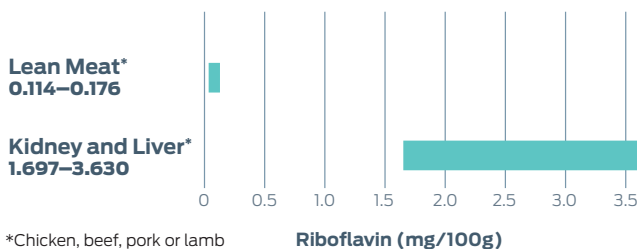
By-products are integrated into pet food either whole or as dried meal and provide a quality, digestible source of protein, vitamins, minerals and healthy fats.

Are by-products lower quality than meat or poultry?

By-products can provide highly digestible, good quality protein³ and other nutrients, contributing to a high quality pet food.

By-products often provide more essential nutrients than muscle meat.⁴ Kidney and liver, for example, can contain greater than 5 to 10 times more riboflavin (vitamin B2) than lean meat, while also providing a good source of other B-vitamins, vitamins A and C and several essential minerals. Many of the organ meats also contain more of the healthy fats (e.g. Omega-3 fatty acids) when compared to muscle meat.⁵

Content of riboflavin (vitamin B2) in lean muscle meat vs. kidney and liver by-products of chicken, beef, pork or lamb.⁵



Protein from by-product meals can be as digestible as food made with fresh meats or poultry,³ but not all by-product meals are equal in quality.^{6,7} Some manufacturing processes can impact digestibility and protein quality, with higher temperatures causing damage and reduced digestibility.^{6,8,9} Therefore, it is important that manufacturers of quality pet foods use by-products and meals from suppliers with stringent quality control standards.

Would a wild dog or cat eat by-products?

Wolves and other wild and feral animals kill and eat prey. When they do, they do not select just the prime rib or the breast meat. Instead, they consume nearly the whole animal. When wolves kill their prey, the first things usually consumed are the abdominal organs or “by-products”.¹⁰ Afterwards, they eat what remains leaving little behind.

Why shouldn't pet foods be made with human-grade ingredients?

There is no single meaning for the term ‘human-grade’ across the globe. For example, FEDIAF regulation defines all animal proteins for feed (meat, milk, egg, hoofs etc.) under the regulatory term ‘animal by product’, even those that are defined as ‘human grade’ if used in human products.² This type of inconsistency can lead to misconceptions.

Although by-products are highly nutritious, there is also an environmental benefit from using them in pet food.¹¹ Muscle meat from livestock amounts to only 32% to 48% of their body weight; the remainder are by-products,⁵ which are environmentally costly to dispose of. Therefore, it is essential for sustainability that by-products be used for their best and most appropriate uses, whether for consumption by people, pets and livestock or for industrial uses.



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