



Choosing the best source of protein: a case of the chicken or the egg?

Pet food manufacturers looking for high-quality sources of protein have different ingredients from which to choose. Two excellent sources of high-quality, functional, and palatable proteins that stand out are spray-dried chicken meat powder (dried chicken) and pure whole egg powder. These are both excellent sources of protein as well as highly bio-available essential dietary nutrients, offering nutritional value and health benefits for cats and dogs, yet there are differences. So, let's take a closer look at the reasons for choosing the chicken or the egg.

An egg is a unique, encapsulated environment containing essential nutrients and compounds to meet all requirements for embryonic development. It also protects the health of the developing embryo against infectious agents. The protein, essential amino acids, fatty acids, antioxidants, and vitamins contained in eggs also offer interesting possibilities to help meet the nutritional requirements of pets. Yet these nutrients can also be found in the fully developed chicken – in fact, at even higher levels. Spray-dried chicken meat powder (CMP), for example, has almost 50% more protein content than pure whole egg powder, contains less fat, is rich in natural antioxidants, and is less allergenic than pure whole egg powder.

PURE WHOLE EGG POWDER

Pure whole egg powder is produced from by-products of the egg and poultry production industry, that are collected, filtered, and spray-dried to form pure whole egg powder. Since the powder can be difficult to handle, it can be pelleted to improve handling at the pet food producer. The gentle heat treatment during spray drying preserves the chemical integrity of essential nutrients, including essential amino acids, contained within the liquid egg fractions. The end result is a high-quality product with high digestibility that has applications in both wet and dry pet food.

SPRAY-DRIED CHICKEN MEAT POWDER (CMP)

CMP (dried chicken) is made from fresh, human food-grade chicken carcasses, necks, and skins, which are concentrated after the removal of bones and fat. Therefore, no mechanical deboning and additional cooking is required. No intestines, feathers, giblets, heads, or feet are used as raw materials. Yet it does contain chicken muscle meat, which is among the best nutritional proteins available.

CMP is mildly processed in a human food-grade facility.

The use of enzymatic hydrolysis and low-temperature spray drying ensures that the nutritional quality of the protein and amino structures is preserved. The agglomerated powder is free flowing and dissolves easily, making it very easy to handle compared to pure whole egg powder. CMP (dried chicken) has applications in all kinds of wet and dry pet food, as well as in semi-moist snacks and treats.

ESSENTIAL AMINO ACIDS

Spray-dried CMP (dried chicken) and spray-dried pure whole egg powder both contain high-quality protein, have a 93% pepsin digestibility, and a well-balanced profile of all essential amino acids. Yet there are specific benefits to choosing CMP over pure whole egg powder for pet food applications. CMP has a much higher protein content of 75% versus 47% for pure whole egg powder, and a much lower percentage of fat: 12% versus 40% for pure whole egg powder. It is also low in calcium and ash, with adequate levels of essential electrolytes. Furthermore, compared to pure egg powder, CMP has a higher lysine availability.

CMP (dried chicken) can be used as an excellent alternative to either fresh chicken meat, chicken meal or pure whole egg powder. It has at least 93% protein digestibility and is very palatable to both cats and dogs. It is ideal for balancing protein levels in pet diets, increasing digestibility, and reducing allergenicity. An additional benefit of CMP is that it creates a clean label for pet food producers that want pure chicken and has no restrictions in terms of pet parents' religious considerations.

NEED HELP TO DECIDE?

If you would like to know more about the possibilities of spray-dried pure whole egg powder and spray-dried CMP (dried chicken) for pet food applications, please contact us: iqi-petfood.com

	WE Powder	CM Powder
Crude protein (%)	47	75
Crude fat (%)	40	12
Crude ash (%)	5	8
P-digestibility (%)	>95%	>95%
PER (relative)	100%	99%
Lysine availability	90%	96%
Human grade	No	Yes
Biogenic amines	?	Low
Food allergen	Yes	No
Spray dried	Yes	Yes
Easy handling	No	Yes
No by-product	Yes	Yes
Palatability	+++	++
Stabilisation	n.a.	NatAO



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ingredients