

# Why we should not be afraid of **chicken by products**.

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You might have heard rumblings that Royal Canin is adding “by-products” in its formulas. Let’s make this clear: this is not a rumour, and this change will affect all our new formulas and upcoming launches. I must admit, I am still amazed of the reaction those two little words can create. Why is that? I guess maybe people associate “by product” to “inedible parts of an organism”, while this is not necessarily the case. Indeed, there are plenty of things that can be considered as by products. Despite what one might think, they are not all bad. So yes, there will be a change in the formulation of our products. But there is definitely nothing to worry about. Let’s try to understand why...

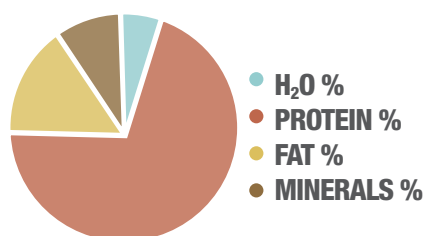
“Secondary products produced in addition to the principal product.” (AAFCO, 2012) What do we learn from this definition? That in fact, if we consider chicken meat as the primary product, anything else remaining can be considered as a by-product... and as you can picture it, there are plenty of things left (internal organs, wings, necks, bones,...), obviously including very nutritious parts of the organism (see Fig. 1) This directly leads us to the fundamental philosophy of Royal Canin: “nutrients vs. ingredients”...

## Nutrients vs. ingredients: our Royal Canin philosophy

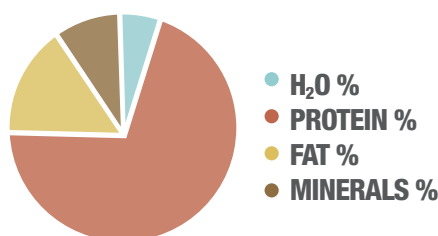
What I like about this philosophy? From a scientific point of view, it totally makes sense! When I was a veterinary student (which now seems quite a long time ago!), I was taught about the importance of the different nutrients, why dogs and cats should be fed daily, appropriate amounts of proteins, fats, carbohydrates, minerals, and vitamins. The roles of these nutrients inside the organism and the consequences if these animals were suffering from a deficiency or fed in excess. It was all about nutrients and this is what is taught to all veterinary students all around the world. We were taught to focus on the amount of specific nutrients provided during the different life stages (maintenance, pregnancy, lactation,...) or for medical therapy, to look for a nutritional answer to fulfil the specific needs of our canine and feline patients. This is how I see a bag of Royal Canin food: a nutritional answer dedicated to a specific condition. Do you think switching to chicken by-product meal will alter this? Take a look at the pie charts in our Fig. 2: as you can see, the nutritional contents are identical... So why would it be?

**Fig. 2: what is chicken by product meal?**

**Low Ash Chicken By-Product Meal**



**Low Ash Chicken Meal**



Association of American Feed Control Officials (AAFCO). 2012.

## Nutritional Value of **BY-PRODUCTS**

**Fig. 1: nutritional value of by products**

Organ meats are a source of important and essential nutrients:



**By-Product:** Brain  
**Nutrient:** DHA

**Benefit:** Fatty acid with anti-inflammatory properties, important in neurological development and visual acuity



**By-Product:** Blood  
**Nutrient:** Iron, Protein

**Benefit:** Iron – essential mineral for prevention and treatment of anemia.  
Protein – contributes to daily requirement of protein



**By-Product:** Bones  
**Nutrient:** Source of Minerals (calcium, magnesium, etc.)

**Benefit:** Essential minerals, Supports strong bones and teeth



**By-Product:** Connective tissue  
**Nutrient:** Chondroitin

**Benefit:** Supports joint health



**By-Product:** Heart  
**Nutrient:** Taurine, L-Carnitine, Protein, etc.

**Benefit:** Taurine - Supports heart health (essential for cats).  
Carnitine – Supports heart health, in addition to supporting the use of fat as an energy source



**By-Product:** Liver  
**Nutrient:** Iron, B Vitamins (esp. B12), Vitamin A, etc.

**Benefit:** Supports multiple systems including; nervous system, skin, growth, red blood cell formation, vision, etc.

  
**ROYAL CANIN**

## The quality of the formulas remains unchanged.

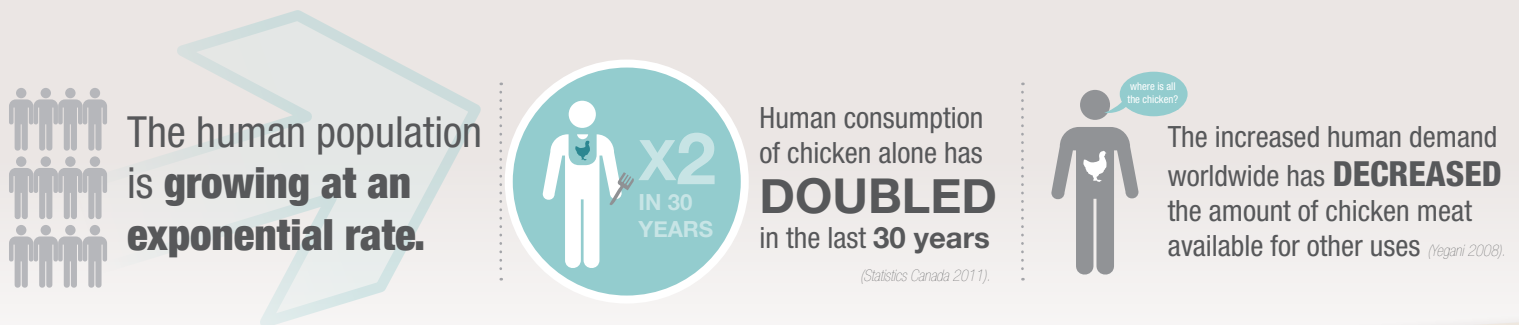
At this point, people usually tell me that chicken by product meal is “lower quality”. What is quality really about when it comes to pet food? Again, as a veterinarian, I will look for a balanced diet: if we look at our pie charts, this should definitely not be a problem; the composition is nearly the same! Then, I’ll think in terms of digestibility (the fact that the organism can absorb as much as possible of the nutrient fed). Our diets contain what we call LIP (Low Indigestible Proteins, which means more than 90% of the proteins fed will be absorbed by the organism). This will remain unchanged in the formulas containing chicken by products. How can we be so sure? Well, because we have scientific tests to demonstrate it. During the industrial process, there are several checkpoints when the nutritional content of the kibbles produced will be analysed: only those which meet our industry standards will be kept. The same goes for digestibility; our lab is always running tests on the manufactured product! We will not compromise the quality of our formulas. And we have the tools to demonstrate that, despite the change you will notice in the ingredient deck, the quality will remain untouched.

## Why are we doing this change?

Why did we decide to do this change? Well, mainly because the human population is growing at an exponential rate (see Fig. 3). The increase human demand worldwide has decreased the amount of chicken meat available for other uses, including pet food. If chicken meat can no longer be sourced, what are our options? We can either try to look for new protein sources (which not solve the problem because this other source might one day be confronted with the same problems) or try to take advantage of the nutritious by-products that are currently not so much appreciated, but can help us to obtain the nutritional answer we target. Remember, their use will lead to no modifications in terms of digestibility, no modification in the amount of nutrients targeted. No modifications in the expected results observed on your animals, which is something you will be able to check by yourself! Why should you be afraid then?

The term “by-product” seems to have an extremely bad reputation in North America, while their use will enable us to deal with one of the biggest challenges facing today’s human food supply. Will this lead to a decrease in terms of quality in our formulas? No, and if this negative connotation is still deeply anchored in your mind, remember the quality assurance tests I previously mentioned. There are ways to scientifically prove that the nutritional answer will remain unchanged. In the end, as a veterinarian, this is what really matters...

**Fig. 3: The challenge we are currently facing**



## How is production meeting this increased demand worldwide?

- ➔ Worldwide chicken meat and egg production have increased over the last 30 years (Yegani 2008)
  - ➔ However, in Canada production has not grown in the last three years (Statistics Canada 2012)
  - ➔ In the United States poultry production has experienced a decline (USDA 2012)
  - ➔ The proposed decline in the United States production is expected to be a result of increased grain costs (USDA 2012)
- Similar scenarios are a possibility for other countries in the future.**