



Q3 2016

Pet Essential Nutrition Quarterly



2016 pet food industry in Latin America

I recently joined our team in Mexico exhibiting at the “6° Foro México Sobre Alimento Para Mascotas-Internacional” organized by Asociación

Mexicana de Productores de Alimentos, A.C. (AMEPA) in Guadalajara, Jalisco, Mexico.

“Foro México” is a Latin American pet food supplier exhibition with an educational program highlighting new technologies and functional raw materials. Although the attendees were mainly from Mexico there were professionals attending from both North and South America.

It was evident from this event that Mexico is one of the fastest growing markets in Latin America. Similar to North America, the main trends are humanization and premiumization, driven by consumers with smaller families or without children and pet owners focused on better health for their companion friends.

DSM Nutritional Products LA has a team of dedicated pet industry experts ready to serve this dynamic market.

Sincerely,
Armando Enriquez
Technical Manager, Latin America



You can now claim nature's defense!

As we saw again in Foro México, the pet food market continues to flourish on products developed to better the health and wellbeing of pets. A very important tool in this development process are functional ingredients. Like in the human dietary health industry, there is a growing emphasis on health benefits derived from compounds found in fruits and vegetables. Consumers are more apt to consume foods and snacks containing these compounds because of the trust factor in solutions from nature.

One dietary functional ingredient relevant to companion animals, and specifically dogs and cats, is beta-carotene (BC). BC is a carotenoid and strong cellular antioxidant. This particular nutrient is best known for its ability to impact immune function, supported by several species specific studies.

One of these studies demonstrated that dietary BC stimulates cell-mediated and humoral immune response in dogs, concluding that dietary BC is absorbed by domestic dogs and enhances cell-mediated and humoral immune responses. (Chew et al., 2000)

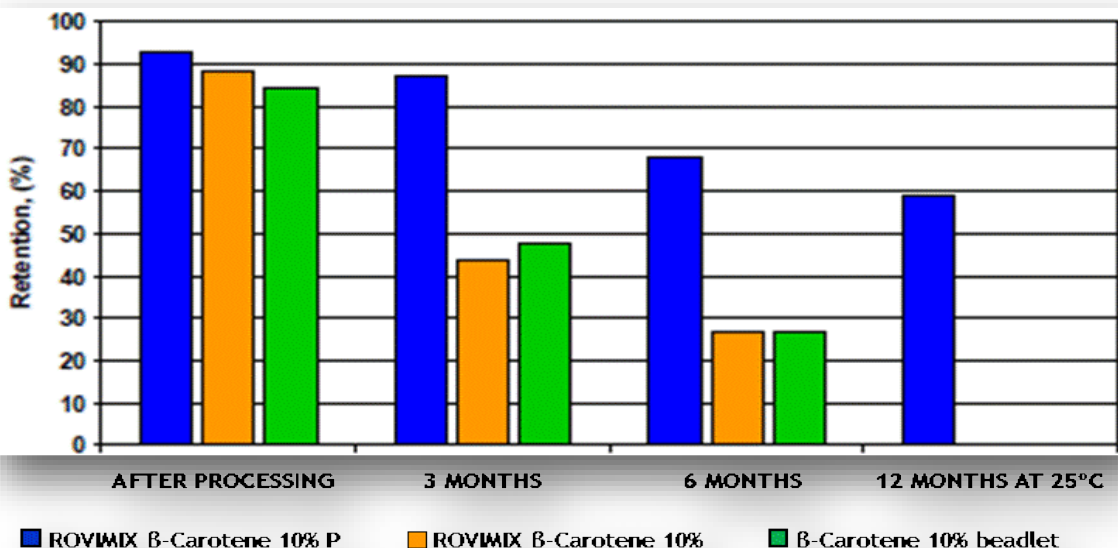
A second dog study investigated the effects of age and dietary BC on immunological variables in dogs. Concluding BC supplementation significantly restored immune responses in older dogs when compared with

their age-matched controls and younger counterparts. An industry critical health benefit since there is an growing population of older dogs. (Massimino et al., 2003)

Another study demonstrated domestic cats readily absorb BC across the intestinal mucosa and transfer the BC into peripheral blood leukocytes and their sub-cellular organelles. The BC uptake kinetics showed that some aspects of BC absorption and metabolism in cats are similar to those in humans. (Schweigert et al., 2000)

Regrettably, the majority of pet foods are manufactured via the rigorous extrusion process, with the challenge of maintaining BC activity after processing and storage. BC from common commercial forms quickly degrades in a dry extruded pet food leaving less than efficacious levels of BC at the point of consumption.

In direct response to this problem, DSM developed an extrusion stable form of BC called ROVIMIX Beta-Carotene 10% P (P=Pets); a form that retains its activity and allows pet food brand owners to guarantee the BC content in their product. See comparison results in the chart below.



Percent of pet owners that strongly agree with the statement	Top 2 box
Like people, dogs will live a healthier and longer life if they get the most advanced nutrition available.	72%
β-Carotene is a nutrient known to support healthy immune function	64%
The antioxidants β-Carotene, vitamin C and vitamin E help strengthen my dog's natural defenses	78%
Antioxidants like vitamin E and beta-carotene will help boost my dogs immune system response to healthy adult levels.	72%

SOURCE: DSM 2011 and 2015 U.S. Pet Consumer Studies by MetrixLab

Functional ingredients appeal to health conscience consumers

Ask any health conscience consumer and they will tell you that eating a healthy diet and exercise are key components to living a long and healthy life, and they believe the same about their pet. Most see consuming functional ingredients as a reasonable way of helping them meet their nutrient requirements since they do not always eat a balanced diet. Consumers like these make up the majority of those purchasing premium pet foods, their belief cannot be ignored when developing products to grow your business.

Why is beta-carotene important?

Compelling results from the DSM U.S. pet consumer studies conducted by MetrixLab in 2011 and 2015 demonstrate that the majority of pet consumers connect beta-carotene to the support of a health immune system, a critical factor in preventative health and longevity. There is also a significant rise in the number of dog owners that strongly agree that beta-carotene either helps strengthen their dogs immune system or boosts their immune system as they get older, when combined with the well

known antioxidant vitamins E and C.

With the growing number of brands positioning themselves to support health and wellbeing, it is important to leverage functional ingredients that are not only relevant to the target pet populations and scientifically substantiated, but are identified by the target consumer as such. Consumers also link beta-carotene to fruits and vegetables (think carrots!), which aligns well with the current premium pet food trends.

Consider also the next generation of pet food consumers, the Millennials. They are heavily connected to the information highway, spend heavily on their pets, and are not as trusting as the baby boomers. It will be imperative that the functional ingredients you select for your brand not only meets the rigors of the manufacturing process, but the rigors of this new and more powerful generation of customers.

As the world's only supplier of an extrusion stable form of beta-carotene, ROVIMIX Beta-Carotene 10% P, DSM Nutritional Products wants to help you successfully develop and grow your pet food and snack brand!