



Pet Essential Nutrition Quarterly

Q4 2018



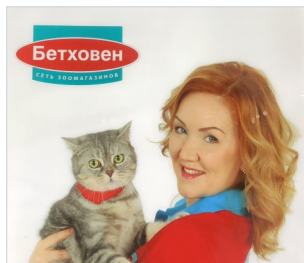
DSM around the world

It was exciting to visit Russia and to attend the International pet food trade show, Parkzoo. This event took place September 18-20 in the beautiful city of Moscow.

According to Euromonitor, the pet food market in Russia was the 7th largest in 2017, with total dog and cat food retail sales value expected to have a 4% CAGR through 2023.

Like most emerging markets, I saw a large representation of imports while walking the exhibit floor. The leading global pet food trends were evident, such as claims of grain free, natural, and made with fruits and vegetables. It was also no surprise to see most new product offers were based on a premium positioning.

One local pet store I visited in Moscow, Betkhoven, had a wide variety of premium pet food brands, but a significant percentage of their inventory was economy priced pet food.



Although brands by Mars Petcare, Royal Canin, and Nestle Purina Petcare dominated the shelves, there are a growing number of local pet food producers seeking to make their mark in this very dynamic business environment. It is interesting to note that the local producers are quickly adapting to the leading trends, despite that fact that they require more expensive processing equipment and a complex supply chain of raw materials.

I am looking forward to becoming more involved in the growth of the Russian pet food market and to my next visit!

Sincerely,

Jeffrey Alix

Global Marketing Manager, Pet Nutrition



The advantage of working with an industry dedicated premix supplier

Understanding the complexity of essential ingredients like vitamins, and vitamin premix, underscores the importance of understanding what contributes to your product's quality, nutritional safety, brand health messaging, and ultimately supplier selection. It is not difficult to recognize that beyond the growing concerns surrounding managing your products quality and safety, brand managers find it increasingly more difficult to create points of differentiation based on nutritional claims, considering the abundance of new trends and related regulatory and economic constraints.

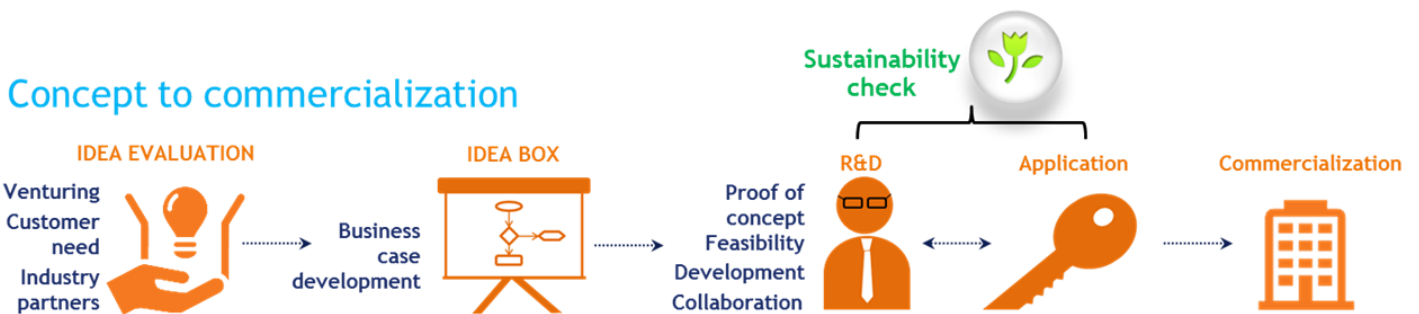


Knowledge of the petfood industry is important

Suppliers that understand the needs of pet food brand owners will not only have a robust market-specific continual improvement program in place, but will continue to invest in providing additional solutions to manage risk and create points of differentiation for pet brands. They do this by having dedicated pet food and regulatory specialists that live the needs of the pet food manufacturing industry.

The DSM difference

At DSM, we not only leverage our own broad portfolio of health ingredients and work with other leading ingredient manufacturers, we innovate and bring nutritional solutions that meet the growing demand without cutting corners. This starts by applying years of pet nutrition knowledge and experience combined with our own market research of pet consumer perceptions.



Our concept to commercialization multi-phase process for new ingredients starts with an idea evaluation phase and, upon acceptance, quickly enter the idea box. The idea box is an accelerated business case development phase. The few ideas that make their way out of the idea box have to pass an intensive and costly feasibility assessment. Only those prototypes that are inline with our sustainability targets, demonstrate the desired health benefit and safety with the target animal, plus have an acceptable application cost, make it through to commercialization. Needless to say, only a rare few new products are added to our product portfolio. This should give us pause when considering the number of new, minimally tested ingredients that enter the market. Are they really delivering the stated health benefit and are they safe for the intended furry child?

Our team of pet food industry experts strive to be viewed as a partner that helps strengthen the quality of your supply chain while providing proven health solutions for your brand. We know this is achievable because of our extensive pet food industry experience, pet food application expertise, integrated business structure, and species specific research orientation.

Managing your vitamin premix supply chain

Managing your raw material supply chain is challenging, but assuring the quality and safety of your pet food or snack brand is the most critical of those challenges.

Among the raw materials that are the most critical to manage are vitamin premix. This fact has been highlighted in the recent pet food recalls in the United States due to excessive levels of vitamin D. Unless you are involved in pet food formulation or regulatory affairs you may not be aware that vitamins can be toxic.

Vitamin premix & their suppliers are critical

Starting with this year's first edition of the Pet Essential Nutrition Quarterly, we explored the importance and critical nature of vitamins, their formulation, and the importance of using a quality premix of these vitamin formulations at the appropriate use rate for your specific product type. A quick review should remind you that there are many opportunities for vitamins to be dosed at a level that deviates significantly from the desired target for the intended pet species. That said, it is critical to work with premix suppliers that not only practice food quality standards when producing the premix, but ensure these same standards are practiced throughout their entire raw material supply chain. This includes integration of pet food production knowledge when selecting the raw materials and formulating the premix. For example, sourcing an inappropriately formulated vitamin premix from either a reputable company that supplies the human food and dietary supplement industries or from a reputable company who's primary focus is premix for production agriculture applications, it is still inappropriately formulated and may over or under-dose the pet food with vitamins.

Consumer reaction to recalls due to vitamins

Since vitamins have been the source of pet food recalls, consumers are becoming sensitized to the topic and demand to know where you source your vitamin raw materials. This became obvious to us when several pet food companies in the United States asked repeatedly for their premix to be made with vitamins produced outside the People's Republic of China. There were no incidences of product recalls that specifically called out poor quality vitamins from China, but savvy consumers connected pet product recalls caused by other raw materials from China and the potential risks associated with vitamins. We know that vitamins produced in China by quality suppliers carries no greater risk than those produced elsewhere, but consumer perception is a powerful factor that influences buying behavior.

There is no doubt that consumers will seek to

understand what raw materials will harm their furry child and try to avoid them. This is clear when you consider the growing prevalence of the transparency trend across the pet food industry.



Web sites like Dogfoodinsider.com, have a mission to educate consumers on the root cause of pet food recalls, and even employ pet industry professionals to substantiate their findings.

Staying ahead of the game

The reality is that for all pet foods positioned as nutritionally complete and balanced vitamins are essential. These vitamins also create a risk to your brand's quality/safety and needs to be managed carefully. Additionally, consumers are becoming increasingly more aware of how much risk is associated with vitamins and will demand to have the assurance the vitamins you source will deliver on your quality and safety promise.

In the pet food industry, vitamin premix is often treated like a commodity, with companies making purchasing decisions based on price. Consider for a moment the spend contribution that premix has on your total product cost and ask yourself if spending a few cents more for a premix from a top quality producer is worth the lower risk. How much would it cost you to recover from damage to your brand equity due to a recall, that is if your brand survives?

DSM's Quality and Commitment to the Pet Food Industry

Based on:

- Safety & Security
- Dedication & Reliability
- Continually Creating Value