

Introduction

Premixes are essential to pet food, ensuring animals get all the nutrients they need to live a healthy life. Without these blends of vitamins, minerals, and other nutrients, achieving a balanced diet that meets a pet's needs would be nearly impossible.

The Association of American Feed Control Officials (AAFCO) sets nutritional standards for pet foods in the United States. Pet foods must meet them to market their diets as "complete and balanced." Selling food that fails to match the nutritional claims on the label may lead to enforcement actions at the state or federal levels.

In addition to meeting AAFCO standards for complete and balanced foods, many manufacturers are looking to premixes to help them design diets for particular health conditions. As consumers increasingly treat their pets as family members, they are conscious of their pets' health and want them to live longer. They look to pet food to help manage health conditions, and manufacturers are responding with formulations for digestive health (20% of pet food products globally made this claim in 2021), skin health (17.8%), immune health (14.6%), omega-3s (13.9%), and oral health (11.4%).

This growing interest in food as a health booster requires understanding AAFCO and U.S. Food & Drug Administration (FDA) standards for pet food ingredients,³ access to a broad array of nutrients, and the expertise and capability to incorporate them into premixes in a way that preserves their benefits.



Unfortunately, a limited number of ingredient suppliers, long lead times, and seemingly arbitrary minimum order quantities can create barriers for pet food manufacturers in getting the premixes they need—and keep their products from getting to market quickly.

ProTab Laboratories is committed to helping pet food manufacturers create premixes that meet AAFCO and FDA standards, using verified and traceable ingredients in exactly the amounts you need—all while helping you move your product to market faster.

A Growing Pet Food Industry Needs Agile Premix Manufacturers

Simply put, the job of the premix supplier is to deliver custom premix solutions that meet the customer's label claims. That sounds straightforward, but it involves many steps, from sourcing to validation. How well the supplier conducts these steps affects turnaround speed—and the pet food manufacturer's bottom line.

The global pet food industry is expected to grow from \$103 billion in 2022 to \$127 billion in 2026.⁴ Premix manufacturers will need to be innovative and flexible to keep up with that increasing demand.

Sourcing

In today's increasingly frequent supply chain wobbles, premix manufacturers should have close relationships with a diverse array of ingredient suppliers from many parts of the world. Maintaining these relationships and building new ones is key to overcoming blocks in the supply chain.

Further complicating this balancing act is the need for traceability. For example, many brands require ingredients to be sourced outside of China—a residual effect of the 2007 pet food recall, when melamine-contaminated ingredients supplied by a Chinese manufacturer were linked to the deaths of hundreds of cats and dogs. ^{5,6}

In such cases, it is not enough for the premix to

be blended domestically—although this is a good first step, and one that ProTab carries out in its facilities in California. The supplier must also be able to provide documentation regarding the source of any ingredients used in the premix, all the way back to their rawest form. For example, Vitamin A is made up of many different elements. The premix supplier should be able to document not only where the Vitamin A was synthesized, but where the ingredients used in making the Vitamin A came from, and so on, back to the ultimate sources.

For some ingredients, only a small number of suppliers exist. When

country-of-origin requirements come into play, the number shrinks even further. This creates bottlenecks and drives up costs.

An example is tricalcium phosphate, which is one of the key nutrients in the pet food industry and has experienced significant price volatility and supply lags in the past two years. Wait times have sometimes been months-long for producers seeking a domestic or non-China source of tricalcium phosphate.

Association of American Feed Control Officials. 2022 Official Publication. 2022.

² Innova Market Insights. Category Insider Light: Pet Food. 2022.

³ "Guidance for FDA Staff: Compliance Policy Guide: Sec. 690.150 Labeling and Marketing of Dog and Cat Food Diets Intended to Diagnose, Cure, Mitigate, Treat, or Prevent Diseases." Food and Drug Administration Office of Regulatory Affairs and Center for Veterinary Medicine, April 2016. https://www.fda.gov/media/83998/download.

To overcome this challenge, ProTab took the proactive stance of securing and validating a Midwest supplier new to the tricalcium phosphate market, enabling lower prices and quicker turnarounds for ProTab customers.

Blending

Since premix is added to pet food and treats in small quantities, it is essential that the premix is evenly blended to ensure a consistent nutrient profile in every batch of the final product. Inconsistency from batch to batch could bring the product out of AAFCO standards and subject the manufacturer to enforcement measures.

Adequately mixing the final product is the responsibility of the pet food manufacturer, but the premix supplier must also provide a blend in which nutrients are uniformly distributed. This requires the premix supplier to understand how particle properties like size, shape, and density interact to create evenly or unevenly distributed premix, and to have the right equipment and personnel to ensure uniform blending.

Testing and Validation

While it is the responsibility of the pet food manufacturer to determine what nutrients are needed and in what quantities to meet AAFCO standards, it is essential to have a proactive premix supplier that will work side-by-side with you to ensure standards are met when the final product goes out.

A premix supplier should test and validate incoming raw materials before using them. ProTab also tests all blends to ensure specifications are

met before shipping to customers, and works with customers throughout the product development process to ensure nutrient profiles meet standards and label claims.

Because of its deep familiarity with nutritional standards and premix ingredients, ProTab is helping customers traverse the challenges of meeting AAFCO limits.

Conclusion

Quality nutrition is a consumer deciding factor for purchasing and committing to repurchasing pet food. Premix is vital to formulating consumerwinning pet food, improving the well-being of both pets and their parents by giving animals the nutrition they need to thrive.

ProTab's custom premix solutions for pet food provide brands the edge they need to thrive in a strongly competitive market through expertise, innovation, and agility.

The industry average lead time for premix is 10 to 12 weeks and can be even longer for some ingredients. Because of its multiple suppliers and swift onboarding process for new customers and formulations, ProTab typically fills orders within six weeks.

ProTab enables customers to order exactly the amount they need, with no minimum order quantities—but can also deliver large orders on a regular schedule. Pricing is competitive, taking into account the size of the order and customer needs.

Our experts are ready to collaborate with you on formulating custom powdered premixes that meet your needs while offering flexible, knowledgeable, and rapid service.