

SOLUTIONS FOR PROTEIN SHORTAGES



Pet food manufacturers are experiencing an unprecedented decrease in the availability of proteins and other ingredients along with rapidly increasing prices. This has created a challenging situation not only for manufacturers, but also downstream for pet parents who find themselves searching for quality products that offer not only nutrition, but health benefits as well.

INGREDIENT CHALLENGES



INCREASING PET NUMBERS

Pet numbers are increasing steadily and have been pushed even higher during the pandemic as people have found companionship in their pets during these difficult times. Correspondingly, demand for quality pet foods, treats and supplements has never been higher.

DECREASING RAW MATERIALS

During this same time, the availability of both plant and animal-based ingredients have been significantly reduced in part due to COVID-19 related supply chain issues. In addition, animal and plant-based fats and oils are of high interest for the renewable fuel industry, reducing the availability for the pet food sector.

INCREASING PRICES

With high demand due to the extraordinary increase in the pet population and the lower availability of ingredients for pet food, manufacturers have observed an unusual increase in the price of raw materials, especially those ingredients more affected by the pandemic, particularly animal origin co-products. There is an exception to that trend – plasma functional proteins.



ABOUT SPRAY DRIED PLASMA

Spray dried plasma is a high-quality ingredient commonly used in wet pet food diets as a preferred binder and is increasingly used in dry pet food kibbles, treats and supplements for its functional health benefits and improved palatability. It works as an excellent protein extender or substitute for other ingredients.

Plasma is a safe and natural ingredient obtained from the blood of healthy pigs and cattle that contains a complex diverse mixture of proteins.

Spray dried plasma is dehydrated in a state-of-the-art manufacturing process designed to keep the functionality of all these compounds without denaturation. Plasma contains a balanced amino acid profile and is a highly digestible ingredient.

PLASMA PROFILE

- 70%+ Protein
- Important amino acids
- High digestibility

ADDED HEALTH BENEFITS

Plasma retains important immune health supporting biological components including:

- Immunoglobulins – bind toxins and pathogens
- Cytokines – anti or pro inflammatory
- Growth factors – stem cell repair
- Transferrin – binds iron
- Lysozyme – attacks bacteria

EXTENDING PROTEINS

EXTENDING PROTEIN INGREDIENTS WITH PLASMA FUNCTIONAL PROTEINS

Beef Lung Analogue - Loaf Inclusion

With the lack of available animal origin ingredients, Spray Dried Plasma (SDP) can help when blended with more available less functional co-products to provide the properties and characteristics of the original animal ingredient. APC is developing revolutionary blends that can provide meat analogues or meat extenders without the use of vegetable proteins that can help pet food producers manage through the lack of ingredients without losing the quality of their final products.

In addition to maintaining the characteristics of the animal origin ingredient to replace or extend, the use of SDP positively affects the palatability and quality of the final product.

CONTROL FORMULA



APC FORMULA



SAFE & WHOLESOME INGREDIENTS

WET, MOIST & SEMI-MOIST PETFOOD

Plasma can be used as a quality binder for traditional manufacturing benefits including making firmer chunks with fewer crumbs, improving texture and creating a gravy pets love.

- Improves water holding, gelling and emulsification
- Improves palatability
- Improves digestibility
- Allows high levels of protein in recipes with reduced starch
- Replaces gums and stabilizers that may be less desirable

DRY PETFOOD, TREATS & SUPPLEMENTS

In dry applications, plasma offers the opportunity for a different kind of functionality - supporting immune health while replacing less desirable ingredients. More than 600 published journal articles show the power of plasma and the positive impact it has on the overall well-being of animals.

- Supports immune health
- Improves digestibility
- Highly palatable
- Low ash, high protein alternative
- Helps balance calcium / phosphorus from meat meals
- As source of functional proteins in senior dogs to improve cognitive functions

The use of SDP in pet diets can help reduce environmental impact and contribute to improving the sustainability of the meat industry and the circular economy.



LABEL FRIENDLY INGREDIENTS FOR PETS

Beef or Pork Plasma
Natural Flavors
Hydrolyzed Proteins

FUNCTIONAL BENEFITS

Immune Support
Digestive Health
Muscle and Joint
Skin and Coat

FORMULATION BENEFITS

Extend or Replace Other Proteins
Promote Wild, Natural Nutrition
Enhance Labeling and Health Claims
Improve Functionality of Formulas

RECOMMENDED INCLUSION LEVELS

Wet Diets: 2 to 5%
Dry Kibbles: Up to 5%
Treats & Supplements: Up to 20%

PLASMA OFFERS SUSTAINABLE SOLUTIONS

With billions of people in the world today and many of them food insecure, we think it's important to maximize the value of all of our resources, including by products like blood. APC collects blood that would otherwise have little to no value and turns it into red cells and plasma. The red cells become a highly digestible protein used in animal rations. Plasma is specially processed to retain all of the biologically active functional proteins that help to support an animal's immune system, health and growth. By using every part of the animal, we can reduce waste - and help other animals thrive.