

EVERYTHING OLD IS NEW AGAIN

DRIED YEAST



PERSPECTIVE

"Everything old is new again" describes the current petfood industry. While ingredients like ancient grains and pulses have been cultivated as food crops for centuries, they are currently experiencing a resurgence in popularity. Today's manufacturers continue to seek alternative, non-traditional ingredients to meet ever-changing market needs and consumer expectations. Yeast can also be considered an ancient ingredient based on its use for bread-making and alcohol production for more than 5,000 years. It was also more than 60 years ago when AAFCO initially defined yeast as a dietary ingredient. Yeast is also "new again" as ADM launches a dried yeast product, Versity™, for the petfood industry to help fill the protein void created by the "no corn, soy, wheat, or animal by-products" ingredient craze. Meat, poultry, and fish currently fill this void, but their long-term usage in pet foods may be at risk due to the continuing rise in the global standard of living. It is well-established that the consumption of meat is a sign of prosperity in developing economies which puts competitive pressure on the use of animal-derived protein in pet foods. Therefore, an alternative protein like Versity represents a viable, long-term protein solution for the petfood industry as it meets today's consumer-centric demands while addressing tomorrow's protein supply limitations.

DESCRIPTION

Versity is a cost-competitive, high-quality protein (48% CP, min) composed of dried, non-fermentative *Saccharomyces cerevisiae* yeast. It is AAFCO-defined (96.1 Dried Yeast) and is neither an animal- nor plant-based protein ingredient. It has a consistent profile of essential amino acids comparable to more costly animal-based proteins like egg, fishmeal, and poultry meal. The amino acid profile of Versity makes it an attractive source of dietary protein for dogs and cats as it can complement or replace commonly used animal- and plant-based proteins. Versity also has inherently low levels of fat, calcium, and magnesium making it a desirable protein in formulations targeting weight management, senior dogs, large-breed puppies, and cats of all ages. It is a light brown, flowable granule with a bulk density ranging from 40 to 48 lb./cu. ft. As a highly concentrated source of inactive, dried yeast, Versity contains no added carriers or known anti-nutritional components.

RESEARCH

Feeding studies show Versity to be highly palatable and digestible when used as a protein source in complete and balanced foods for dogs and cats. Foods containing 10% Versity have been tested in dogs and cats using standard two-bowl palatability and AAFCO-defined digestibility methods. Comparable foods devoid of Versity serve as control foods in these feeding studies.

PALATABILITY

Dogs have a preference for Versity-containing foods based on first-bite selection. When presented with a food choice over two consecutive days, more dogs choose a food with Versity first compared with dogs that first choose a control food (11 vs. 5, respectively). Overall, first-bite preference for a food with Versity is almost twice the rate as a comparable control food without Versity (26 vs. 14, respectively).

Cats also have a 2:1 preference for food with Versity over comparable control food based upon consumption ratio differences. Consumption ratios greater than 0.67 show 10 cats vs. 1 cat clearly prefer food with 10% Versity than a control food devoid of Versity.

DIGESTIBILITY

Versity is highly digestible in dogs based upon the production of highly-acceptable stools when a food with 10% Versity is consumed. A highly-acceptable stool is rated as a 3 or 4 on a 5-point subjective fecal scoring scale. The nutrients in a Versity-containing food are also highly available based on digestibility values for dry matter (85%), organic matter (90%), protein (90%), fat (94%), and energy (89%). These values are similar to a comparable control food.

Utilization of nutrients in cat food with 10% Versity is equal to a control food based on similar nutrient digestibility values. Total tract digestibility of dry matter, protein, fat, and energy ranges from 81% to 86% for both foods. Both foods contained animal-based proteins (25%) and fat (10%) and plant-based carbohydrates (40%). Highly acceptable stools are also produced by cats fed a food with 10% Versity which is similar to stools of cats fed a control food devoid of Versity.

URINALYSIS

Healthy adult cats fed food with 10% Versity produce urine within normal physiological ranges for pH and specific gravity. The urine of cats fed a Versity-containing food is generally more acidic and more concentrated compared with urine of cats fed a comparable control food (6.40 vs. 6.53 and 1.055 vs. 1.039, respectively).

APPLICATIONS

Petfood manufacturers and ingredient suppliers continually navigate ever-changing market dynamics to identify acceptable ingredients for today's pet owners and retail customers. In this quest for alternative ingredients, it is incumbent on each stakeholder to remember dogs and cats require nutrients and not ingredients. Specifically, dogs and cats have a dietary requirement for 10 essential amino acids. By definition, these indispensable amino acids cannot be synthesized by the body at a rate necessary to meet tissue requirements so is essential they are supplied in the diet. Nutritionists and formulators require appropriate protein sources in their arsenal that can provide dogs and cats with a balanced profile of essential amino acids. Ideally, these protein sources are affordable, available, and consumer-appealing. ADM research shows Versity fulfills this need for an alternative, cost-effective, high-quality protein source. Versity is an ideal protein for the petfood industry because it permits more formulation flexibility. As a low-fat, low-ash protein source, it can replace or complement other expensive or variable proteins in foods and treats formulated for dogs and cats across all life stages and life conditions.

Versity is proof "everything old is new again" when one considers an ancient ingredient like dried yeast can be specifically produced and positioned for today's petfood industry as a novel, alternative ingredient capable of meeting the pet protein needs for today and tomorrow.



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Gary is responsible for providing technical support, nutrition training, formulation services and new product development for ADM's customers in the pet food industry. He has more than 33 years of animal nutrition experience as a research nutritionist. Gary previously held positions with the IAMS Company and as a research & teaching faculty member at Auburn University, Animal & Dairy Science Department. His research interests and activities have included protein and amino acid nutrition, skin and coat health, sporting dog nutrition, nutrigenomics, hairball nutrition and successful aging. At Auburn his research and teaching focused on animal nutrition and the relationship between nutrient availability and the hormonal regulation of growth. Gary received his undergraduate and graduate degrees from the University of Kentucky. He has over 100 scientific publications and 20 granted patents worldwide.