

5 REASONS WHY USE BETA-GLUCANS IN PET FOODS

According to Mintel, **two-thirds (65%) of American** adults say they are likely to get a new pet in the future, and **45%** anticipate they will do this next year. This suggests significant future growth of the pet food market, which is expected to **reach 121.41 billion dollars by 2025 (5.56% CAGR).**¹

There is increasing consumer demand for natural and functional pet foods, as these are perceived as healthier and having better quality than traditional foods. Accordingly, the industry has developed pet foods with several "human-like" claims, such as **free-from and high-protein**, following trends, such as **healthy eating behaviors**. According to Petfood Industry, 52% of pet owners are more likely to purchase a pet food labeled "**made of natural ingredients**"², and **three-quarters** of those interviewed in the United States somewhat or strongly agree that they are willing **to pay more for pet food products with a health claim.**³



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Purified yeast beta-glucans are natural ingredients that can add value to your pet food. See below 5 reasons why:



1. BOOSTING PETS' NATURAL DEFENSES

Who does not want to live longer and healthier lives, and to be more resistant to diseases?

People daily face stressful situations, which may be perceived by their pets, affecting their well-being. Beta-glucans aid the **natural defenses** of pets during their entire life, supporting their **health and welfare**.

As beta-glucans molecules are not broken down by the host's digestive enzymes, they are absorbed intact in the gut. They bind to receptors on the membranes of immune cells, which are responsible to fight diseases, killing pathogens and infected host cells.

The activation of immune cells by beta-glucans:



Boosts the protection against infections and the vaccines response



Enhances phagocyte activity and oxidative burst



Modulates cytokine and chemokine production by immune cells



Supports the host's natural defenses



2. SUPPORTING SKIN AND COAT HEALTH

Shining hair, smooth skin, and... less hair on the couch!

Pet owners are greatly concerned with the skin and coat health of their pets.

Beta-glucans are frequently used in human products to strengthen skin barrier and smoothness and to reduce redness and irritation. These effects are related to the modulation of immune cells response promoted by beta-glucans.

Several pet supplements include beta-glucans in their formulas. **There is scientific evidence in dogs that beta-glucans aid in alleviating atopic dermatitis symptoms, such as itching, redness, scaling, thickening, and stripping.**

Pets may benefit from the daily ingestion of beta-glucans, which promote skin and coat health and resistance.





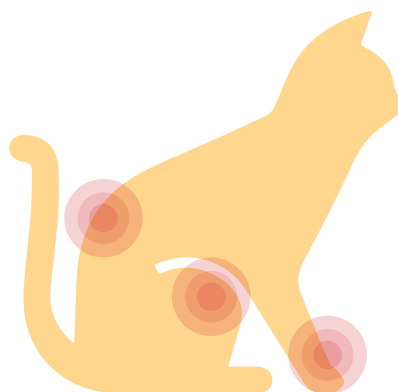
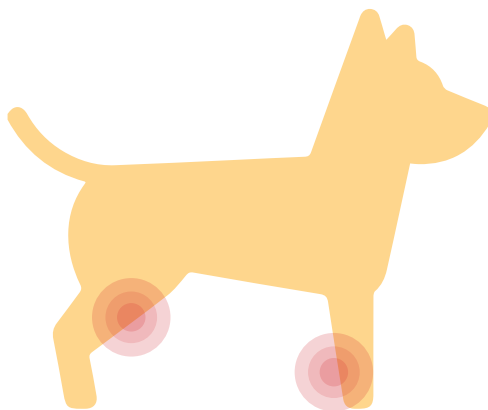
3. PROMOTING JOINT HEALTH

Joint conditions used to affect mostly large-breed dogs. However, as today our pets live increasingly longer, an increasing number of senior cats and dogs of all sizes may suffer symptoms such as chronic pain, lameness, limping, and difficulty in getting up.

The most common joint disease is osteoarthritis. This degenerative and inflammatory condition is characterized by the release of pro-inflammatory cytokines and cartilage loss. It is an incurable and chronic disease, but its progression can be slowed down by the administration of anti-inflammatory and pain-relief medication.

A study has shown that the dietary inclusion of beta-glucans for 8 weeks significantly reduced stiffness, lameness, and pain, and improved the activity of dogs with osteoarthritis, as observed both by owners and veterinarians.

Although it is not easy to identify joint disease symptoms in cats, if your old friend does not jump everywhere or prefers to rest at lower places, the reason may be joint pain or difficulty moving. In this case, beta-glucans may greatly benefit cats. **Beta-glucans are safe and can be fed in any life stage.**





4. IMPROVING THE OVERALL HEALTH OF OBESE PETS

Food is used by owners to establish emotional connections with their pets as feeding is considered a way to show your pets you love them. However, this often results in obesity. According to the Association for Pet Obesity Prevention, **around 54% of dogs and 60% of cats in the US are obese, and similar figures are found globally.**

In addition to approaching the emotional cause of pet obesity, the formulation of foods for weight loss management or maintenance of obese pets is essential. Such foods should allow reducing calorie intake while maintaining an adequate nutrient profile, and the addition of nutraceuticals may be of great value to these diets.

Guess what?

Human literature on the benefits of beta-glucans in the treatment of **obesity and metabolic syndromes demonstrate they reduce visceral fat, cholesterol levels, postprandial glucose and insulin responses, and promote satiety.**

Similar effects were observed in a study which evaluated obese dogs fed beta-glucans for 90 days. **Reduced basal glucose, insulin, total cholesterol, and triglyceride levels** were observed by the end of the trial. Moreover, GLP-1 levels increased, indicating that beta-glucans may influence **satiety and promote better glycemic control**, as this hormone has a hypoglycemic effect. Last, but not least, obesity induces a pro-inflammatory state and oxidative stress, and the study found that the obese dogs fed beta-glucans had **lower levels of TNF- α , a pro-inflammatory cytokine.** These results suggest that beta-glucans aid in alleviating the chronic inflammation caused by obesity and prevent its secondary consequences.



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CLEAN LABEL

5. CLEAN LABEL & SUSTAINABLE

Pet owners are becoming increasingly interested in sustainable claims. According to the Petfood Industry, **animal welfare issues and the transparency of pet food manufacturing** play a key role in purchase decision-making process due to the impact of food production on the environment.

In a global consumer survey, **83% of millennials** said it was extremely or very important to them that **companies implement programs to improve the environment**, and 75% said they definitely or probably will **change their purchase or consumption habits to reduce their impact on the environment** ⁴.



Go Biorigin

Biorigin is committed to sustainability, which is an integral part of the company's Philosophy and Quality Management Policy, focused on applying sustainable processes for the production of pet food additives and ingredients.

Biorigin is FSSC 22000, ISO 14001, SQF, Bonsucro, and Ecovadis certified, and its products are Kosher and Halal.

[Click here to know more about our sustainability practices and read our latest Sustainability Report.](#)



NATURAL AND SAFE INGREDIENT

Beta-glucans are certified as **GRAS actives** in a process submitted to the FDA (Food and Drug Administration) in the US under GRN 000239, and according to EFSA (European Food Safety Authority) scientific opinion on additive safety (Journal 2011; 9 (5): 2137), **they do not pose chronic toxicity issues**. In nature, beta-glucans are found in the innermost layers of the yeast cell wall but are unavailable to animals, and therefore, have little or no functional value.

Biorigin's purified beta-glucans

MacroGard contains high levels of purified beta 1,3/1,6 glucans extracted from a specially-selected strain of the yeast *Saccharomyces cerevisiae*. Its production process involves a novel technology that breaks down the mannoprotein of the outer layer of the yeast cell wall, exposing beta-glucans present in the inner layer, while fully preserving their functionality. Only this unique compound is capable of activating specific cells of the animal's natural defenses.

**CONTACT OUR TECHNICAL TEAM TO GET ACCESS TO
STUDIES ON MACROGARD IN PETS!**



References:

1. Statista, 2020. Humanization of the pet food market in the U.S.
2. Petfood Industry, 2020.
3. Packaged Facts; APPA, 2018. Statista, 2020. Humanization of the pet food market in the U.S.
4. Conference Board 2019, Nielsen.

