

PALATABILITY: A STRATEGIC FACTOR IN ANIMAL NUTRITION

PALATABILITY REPRESENTS THE COMBINATION OF SENSORY AND METABOLIC STIMULI THAT DETERMINE AN ANIMAL'S VOLUNTARY INTAKE OF A GIVEN FEED. BEYOND TASTE OR TEXTURE, THE GOAL IS TO ENSURE THE EXPECTED INTAKE AND CONSEQUENTLY ACHIEVE THE NUTRITIONAL OBJECTIVES—AN ESSENTIAL ELEMENT IN THE FORMULATION CHAIN.

AT LINNEOS, THE TECHNICAL DIVISION OF THE ANDRÉS PINTALUBA GROUP, WE ADDRESS PALATABILITY AS AN INSEPARABLE COMPONENT OF FORMULA DEVELOPMENT, BOTH FOR COMPANION ANIMALS AND LIVESTOCK PRODUCTION.

Technical Foundations of Palatability

DEFINITION AND SENSORY BASIS

The scientific literature defines palatability as the acceptance or preference of a feed by the animal, based on its sensory profile (smell, taste, texture) and the anticipated nutritional value.

For example, in ruminants, the initial intake rate has been shown to correlate with what is known as *hedonic feeding behaviour*—motivation driven by palatability rather than physiological need.

Similarly, in petfood, even high nutritional quality can lose effectiveness if the sensory level does not facilitate intake.

KEY INFLUENCING FACTORS

The factors that condition palatability can be classified into three main categories:

- Primary sensory factors (smell, taste, texture, appearance): for instance, strong aromas or attractive flavours increase intake, whereas bitter tastes or undesirable textures may reduce it.
- Physical form and processing: particle size, density, hardness, moisture, and feed stability. In ruminants, ease of ingestion (less chewing effort) increases preference.
- Post-ingestive effects and learning: animals associate the sensory experience with subsequent satiety or discomfort. This learned association influences medium- and long-term preference.

FORMULATION IMPLICATIONS

From a technical and industrial perspective, several critical aspects must be considered:

- Raw material selection must account not only for nutritional profile but also for sensory impact (aroma, residual flavour, aroma stability).
- Technological processing goes beyond digestibility; modifying texture, applying coatings or adding palatants can significantly improve intake.
- Monitoring sensory stability throughout shelf life is essential: fat oxidation, aroma loss or undesirable volatile compounds can negatively affect palatability and thus reduce consumption.

Palatability by Species: Petfood vs. Livestock Production

NUTRITION FOR COMPANION ANIMALS

In dog, cat and other pet diets, palatability has a dual objective:

1. Ensuring that the animal consumes the formulated ration according to its nutritional needs.
2. Strengthening the owner-brand relationship through sensory experience, a factor that strongly influences loyalty and perceived value.

For this reason, petfood formulas often incorporate high-quality animal-derived ingredients, intensified aromas, premium palatants and processing techniques that optimise texture and flavour.

LIVESTOCK PRODUCTION FEEDING

In ruminants, swine and poultry, the approach differs: the objective is to guarantee the minimum intake required to reach zootechnical parameters (average daily gain, feed conversion, gut health) at an optimal cost.

Here, palatability is understood as a guarantee of consumption rather than a "sensory luxury."

Nevertheless, its impact on efficiency is substantial: for example, ensuring early intake in post-weaning piglets is crucial to avoid performance setbacks.

The technical expertise of the Andrés Pinaluba Group enables us to integrate solutions that connect palatability, digestibility and performance, adapted to high-rotation industrial environments.

AVAILABLE STUDIES ON PALATABILITY AT THE LINNEOS WEBSITE

At LINNEOS, we provide five independent studies (each approximately 4–6 minutes reading time) that analyse different aspects of palatability and validate the effectiveness of our palatant line.

A brief overview:

- Study on adult dogs evaluating preference with our APSAPAL® solution.
- Study on post-weaning piglets assessing the impact of palatants on early intake.
- Study on laying hens analysing sensory influence on routine feed consumption.
- Two additional studies conducted across different species and feeding scenarios.

We invite professionals to access the complete collection on the LINNEOS studies page: [LINNEOS – APSAPAL® Studies](#).

Innovation: APSAPAL® Line for Small Pets

As part of our R&D strategy, we present APSAPAL®, a solution developed by LINNEOS with the technical support of the Andrés Pintaluba Group, specifically designed for the small-pet market.

KEY FEATURES:

- Formulation based on yeast and innovative ingredients, aligned with petfood market demands for clean labels and high sensory performance.
- Ability to enhance sensory acceptance while reducing the conventional use of animal-origin palatants.
- Proven stability in dry formats, designed to meet both technical requirements (intake, digestibility, well-being) and market expectations (owner acceptance).

With APSAPAL®, we offer veterinarians and nutritionists an advanced tool to optimise sensory formulation without compromising nutritional excellence.

Visit our website to learn more about the effectiveness and characteristics of [APSAPAL®](#).

CONCLUSION

Palatability can no longer be considered optional: it is a critical technical criterion that links nutritional formulation with actual feeding behaviour. In the pet sector, it drives loyalty and satisfaction; in livestock production, it ensures performance and economic return.

At LINNEOS, supported by the expertise of the Andrés Pintaluba Group and its continuous innovation through its R&D department, we help manufacturers integrate this parameter from the earliest stages of development, guaranteeing more competitive, balanced and effective products.