

Brain-Microbiota connection, the key driver to enhance performance

Many countries have already banned the use of Antibiotic Growth Promoters, and phyto-genic feed additives appear to be a great alternative.

1/ Microbiota-brain connection: a worthwhile subject of interest for livestock performance

By adopting a holistic approach to the animal, Phodé innovates to offer sensory solutions with original modes of action and proven efficacy. Numerous publications show the various impacts that microbiota have on the whole living being. When this flora is unbalanced, it leads to abdominal pain, psychological stress and therefore an alteration of the quality of life. As a consequence, top-performing animals do not reach their potential. Dysbiosis is caused by farm management, feed transitions, psychological or physical stress, sickness, antibiotics, etc. Bacteria present in the gut are closely linked to other systems, such as the immune system and the brain (Dantzer, 2009). The microbiota-gut-brain axis is a bidirectional homeostatic axis. It is now recognized that a dysfunction of this axis can lead to pathogenesis (Mayer, 2011). This symbiotic relation between host and bacteria is at the origin of an overall balance. When this balance is not optimal, modulation of stress response, behaviour and immunity can be altered (Rhee, 2009). Alteration of immunity is likely to lead to sickness (lower innate and adaptive immune response (Round, 2010 & Olszak, 2012), and increase in pro-inflammatory cytokines in plasma). Microflora also impacts the brain by controlling the concentration of various neurotransmitters, affecting behaviour.

2/ Phodé's concept

Phodé considers "Better-Being" in animal farming as the cornerstone for reaching optimum performance. The microbiota-gut-brain axis is a unique system called the "cerebral ecosystem". Based on this original approach, Phodé offers specific and innovative solutions adapted to modern farming expectations. Oleobiotec is an exclusive blend of essential oils and spice extracts designed to optimise transmission of the "Better-being" message through the microbiota-brain connection.

3/ A naturally inspired solution

Essential oils and spices are widely known in human medicine and are also used in animal medicine. They regulate microflora and stimulate the secretion of enzymes, gastric juices and motility of the gut. Firstly, the action of an essential oil depends on its chemotype defined by nature: the plant, the area where it was grown, the season and other factors. Phodé draws on 20 years of expertise to carefully select active ingredients and create unique solutions. Phodé guarantees consistent and effective solutions, thanks to a sourcing commitment and strict quality standards.

Secondly, Phodé's expertise and know-how foster enhanced efficacy, combining natural active compounds in order to benefit from their synergistic effects. This expert use of synergies resulted in the Oleobiotec range.

Each species has its own gut microbiota. Specific Oleobiotec products were thus created to offer solutions for poultry, swine and ruminants. For the last 10 years, over 30 trials have been conducted with scientific partners, commercial partners and customers around the world. Experiments in dairy show an improvement in milk yield and milk quality, especially in somatic cell count. Oleobiotec regulates ruminal microflora, preventing drastic shifts which can cause metabolic disorders. A balanced microbiota helps to maintain normal behaviour (feeding, resting, ruminating, etc.) Benefits vary according to species and rearing conditions but the common result is that Oleobiotec is a cost-effective solution for antibiotic-free animal production.

Oleobiotec is a unique solution, proven effective in promoting the balance and diversity of gut microbiota for "Better-Being". Acting on the whole cerebral ecosystem is the key to helping animals reach their full potential. Ongoing research on plant extracts promise novel solutions in the future to combine animal performance and sustainability.

Its original mode of action of balancing the microbiota will have a positive effect on the whole cerebral ecosystem, allowing animals to reach their potential through "Better-Being".

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