



Standardizing nature

The importance of sorting out the variations in natural raw materials for consistent efficacy of phytogenic feed additives

In selecting phytogenic products, research as well as quality control must receive increased attention. When working with the vast potential of nature, where natural variations exist in the raw materials, standardization is key to consistent product quality. Only a few companies know how to standardize natural ingredients for phytogenic feed additives.

An interview with experts from Delacon, pioneer and global leader in phytogenic feed additives, Jacqueline Wolfschlucker, laboratory manager, and Andreas Pichler, quality management. In 2017, around two percent of the global compound feed output included Delacon's phytogenic feed additives.

What does standardization mean in regards to phytogenic feed additives?

Andreas Pichler: Phytogenic feed additives are standardized mixtures of herbs, spices, other plants and their extracts with proven efficacy. In this sense, a standardized mixture could be described as homogeneous mixture of different raw materials to offer an effective product that delivers consistent value to our customers. Moreover, a standardized mixture describes the homogeneity of produced batches. Different batches consist of the same quality raw materials.

Why is standardization vital for consistent phytogenic products?

Jacqueline Wolfschlucker: At Delacon, since coining the term phytogenic feed additives, we focus on nature and use natural ingredients. Only active compounds derived from herbs, spices, other plants, and their extracts can unleash synergies between ingredients that naturally occur in plants.

However, it is important to know that the main active compounds in plants can have natural variations in their concentrations. The reason: Growth conditions, time of harvest, plant breed or methods of isolation depending on the source and location of origins. Therefore, standardization is key to consistent quality of phytogenic feed additives.

Synthetic single substances mimicking active compounds from plants, so-called nature-identical substances, are easier to standardize and more concentrated than products based on natural ingredients. This is part of the reason why many companies choose to use those, also selling their products as phytogenic feed additives.

How to achieve standardization of natural ingredients?

Andreas Pichler: Standardization can be achieved through standardized processes and rigorous quality control. Strict quality management runs like a golden thread through the entire production process, from evaluation and selection of raw materials to final products. For example, we select our raw material suppliers according to FAMI QS, an accepted quality and safety system for specialty feed ingredients. It contains parameters, such as traceability of the production process, analysis of raw materials, control of the production process and hygiene. In addition, we do numerous analysis beyond FAMI QS and EU regulations.



Jacqueline Wolfschlucker: Our laboratory is highly involved in the selection and validation process. Besides the document and certificate check, the owned on-site laboratory analyzes the delivered raw materials as well as produced phytogetic feed additives through standardized parameter analysis. This means that the range of expected values has been predefined by a committee of Quality Management, Regulatory Affairs and Research and Development. If the analytical parameters match the expectations, the system releases the raw material for production or the finished product for shipping. Moreover, all samples are stored for at least two years to guarantee traceability.

To conclude, why should producers pay attention to highly standardized phytogetic feed additives?

Jacqueline Wolfschlucker: Efficacy is not random. To ensure consistent efficacy and avoid fluctuations, it requires standardized quality management. If a phytogetic feed additive passes our gate, we ensure that it fulfills our quality requirements based on research. This means that the product includes the effective amount of ingredients and hence, delivers consistent efficacy in animal nutrition.

Andreas Pichler: Moreover, giving standardization highest priority also means to verify with independent authorities. For example, only strictly standardized natural ingredients meet the high level of EU requirements for quality. The zootechnical registrations that we received as the first and, so far, only company for two phytogetic feed additives are a clear and independent confirmation of standardization and traceability in addition to efficacy and safety of our feed additives.