



Technological developments and innovations in the feed processing industry

There are many developments globally in the animal feed industry that are helping to transform animal farming. Some of these innovations include the use of precision nutrition, nutrigenomics, alternative protein sources, automation and blockchain.

1. Precision feeding: This involves using sensors and data analysis to adjust feed intake for individual animals based on their needs. This can help to reduce waste and improve feed efficiency.
2. Nutrigenomics: This involves using genetic information to develop more personalised feed formulations for individual animals. This can help to optimise animal health and performance.
3. Alternative protein sources: There is growing interest in using alternative protein sources, such as insect meal, algae, and single-cell proteins, to reduce reliance on traditional feed ingredients like fishmeal and soy.
4. Automation: Automation technologies, such as robotics and artificial intelligence, can help to improve efficiency and reduce labour costs in feed production.
5. Blockchain: Blockchain technology can help to improve transparency and traceability in the feed supply chain, which can help to ensure that feed ingredients are produced in an environmentally responsible manner.

Advances in technology have made it possible to produce high-quality feed more efficiently and cost-effectively than ever before. For example, new grinding and pelleting techniques can produce feed that is easier for animals to digest, which can lead to better growth rates and feed conversion.

The use of automation and robotics is helping to streamline the feed production process and reduce labour costs. Another area of innovation is the use of precision farming techniques to optimise animal health and performance. This involves using sensors, data analytics, and other technologies to monitor animal behaviour, health, and productivity in real-time. By collecting and analysing this data, farmers can make more informed decisions about feed management, health interventions, and other aspects of animal care. Finally, there has been a lot of innovation in the area of feed additives. These are substances that are added to animal feed to improve its nutritional value or to enhance animal health and performance. For example, probiotics and prebiotics and amino acids, can help to improve feed efficiency and reduce waste.

Victam LatAm

The first Victam LatAm and Grapas LatAm 2023 is approaching! This event will take place from 3-5 October, 2023 at the Expo Centre Norte, São Paulo, Brazil and is the place to be to network with industry professionals, learn about the latest trends and technologies, and explore new business opportunities.

- Only complete event for the animal feed industry (Beef, Pig, Poultry, Aqua and Pets);
- Estimated number of exhibitors will be over 150, already more than 3000m² sold;
- New innovations and launches will be displayed;
- Extensive conference programs and technical seminars on developments, optimization and sustainable incentives with key speakers sharing their insights.

Interview Hydronix

In this issue, we are excited to feature an interview with Hydronix. They will be joining us on our Victam LatAm journey and we think you will find their insights to be incredibly valuable. Hydronix is a UK based manufacturer of high-quality microwave moisture sensors which use a unique measurement technique. Established in 1982, Hydronix has over 95,000 installations in over 90 different countries worldwide.

In recent years what are the technological developments that you have seen that could be applied in the feed sector?

The recent development of Industrial Internet of Things, allowing the collection and processing of data, is becoming more prevalent in many industries.

Gathering more data on many areas of process plants allows fine-tuning the process control to give higher quality products, optimising the use of raw materials whilst reducing input costs such as energy and maintenance.

A side effect of this optimisation is often also seen as a reduction in embodied carbon in a product which is becoming an important issue for many producers.

What is your vision on the evolving aquafeed industry?

More and more aquafeed producers are integrating their automated control systems from separate processes allowing them to control their plants from beginning to end. Automation lets them view and optimise their whole plant with detailed operator interfaces.

In order to provide complete control, much data needs to be collected from reliable and accurate sources specific for the materials which is monitored.

Sometimes expensive NIR systems are necessary due to the material mix being adjusted, but more often, the only change which needs monitoring is moisture. Digital microwave moisture sensors allow high accuracy

and precision while being cost-effective and low maintenance.

Can you tell us a little bit more about your latest innovations or technologies?

Hydronix has been developing for over 40 years its proven sensor technology to allow installations in many new industries, including aquafeed.

The sensors are designed to be installed in the flow of the material to give an online measurement which can then be used to control processes such as conditioners, dryers, weighing and dosing systems and mixers.

All these processes are highly influenced by the natural variation of the moisture in the material.

The latest innovations from Hydronix allow sensor installations in even more demanding dusty environments such as those at risk of explosive atmosphere.

What are your expectations of Latin America?

Latin America is a quickly emerging market of high-quality affordable products. There is an excellent industrial process base with innovative techniques and engineers that could benefit from the ability to measure moisture precisely and accurately in their plants.

Hydronix sees Latin America as an exciting growth area for our products which have already been extensively used and installed successfully in other locations such as Northern Europe, South-East Asia and China.

