



## AT CHR. HANSEN, QUALITY IS EVERYWHERE

**When quality focus is a priority for a company, it sets the tone for the whole business. The drive for quality infuses every part of an organization and everyone has a role to play. With many industries, quality is also an essential part of safety. This certainly holds true for global bioscience company Chr. Hansen.**

It was back in the late 1970s that Chr. Hansen first began to investigate whether its bacterial know-how could be used in animal production. Building on its core bacterial competencies, the company wanted to expand into new industries beyond dairy. To do this, a separate company called “Chr. Hansen Bio-systems” was created to start researching, developing and selling new innovations within Animal Health & Nutrition as a new niche segment. Products were developed and launched – some successful, others not so much – as the company struggled to find its feet.

Over the years, “Chr. Hansen Bio-systems” got a stronger and stronger foothold, understanding the industry and its challenges, developing innovative solutions with proven results. And so it was that in 1999, Bio-systems was finally integrated into Chr. Hansen to become a fully-fledged part of the Chr. Hansen portfolio. Today, Chr. Hansen is the world leader in bacterial solutions for animals.

### HIGH QUALITY STANDARDS, A COMPETITIVE ADVANTAGE

The quality management system at Chr. Hansen is based on ISO 22000, an international standard designed to ensure safe food supply chains worldwide; ISO 14001 (environmental management systems); HACCP and GMP standards, and the company produces all its products worldwide in accordance with ISO 9001. In addition, all Chr. Hansen’s production plants are FAMI-QS certified.

Quality has two key dimensions for the company: First, that every delivery of its products meets specifications and has a guaranteed shelf life. Second, and equally important, that products consistently improve animal production and fulfill the expectations of our customers.

Quality is not only complying with regulations. “Our probiotics are heat tolerant and stable. This means that the probiotic strains survive the stressful procedure of pelleting and have extended shelf-life,” explains Lidiia Alaverdova, global marketing director for the Animal Health & Nutrition business. In its flagship products, Chr. Hansen uses a dormant but live form of probiotic bacteria to achieve the stability customers demand. In this form, they survive the pelleting process and become active again in the digestive tract of the animals where they can exert their beneficial effect.

In addition, most of Chr. Hansen’s animal probiotic and silage inoculant products are approved by EFSA (European Food Safety Authority) for sale in all EU countries. It is well known that products approved by EFSA go through a very stringent review process that includes animal safety and efficacy studies, as well as rigorous assessment of the innocuity of the bacteria strains used.

“Quality also has a lot to do with the experiences of the feed manufacturers that actually have to work with the product. We improve our production processes constantly to get the maximum advantage out of it for our customers, feed mills and animal producers,” adds Alaverdova.

**CHR HANSEN**

*Improving food & health*



## THE CHR. HANSEN BIOSAFETY BOARD: BECAUSE STRAIN SAFETY MATTERS

Quality is indeed also about safety. Chr. Hansen's Biosafety Board advises and directs the business in matters related to the safety of strains and cultures for production and commercialization. The board has representatives from several functions including R&D, the Regulatory, Legal, and Quality Assurance departments and industry experts from the business.

This broad composition facilitates comprehensive evaluations and risk analyses beyond the mere scientific understanding. According to Esben Laulund, Chair of the board and vice president in External Research & Development, "the Biosafety Board ensures that all new commercial cultures are safe for both our employees and our customers. It is key for Chr. Hansen that we do not jeopardize the excellent reputation Chr. Hansen has today as a trustworthy supplier of unique ingredients. With this group, we ensure cross-functional inputs, company-wide decisions and end products that are aligned with regulatory guidelines."

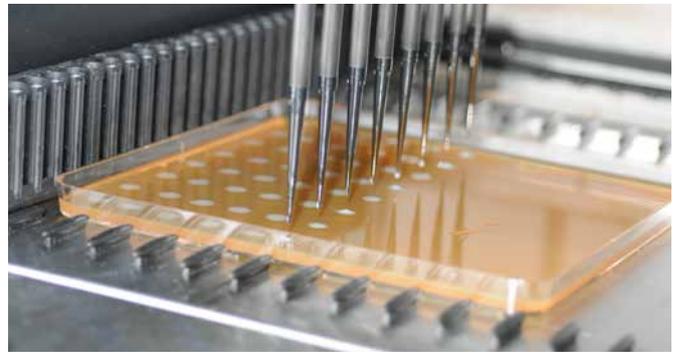


## STATE-OF-THE-ART INNOVATION AND PRODUCTION SETUP SUPPORTS QUALITY

High quality products do not see the light of day by themselves. It requires a strong global setup and highly competent scientists.

At Chr. Hansen, working with advanced robot technology has been part of the everyday routine for years, and robots are continuously becoming a bigger part of our laboratories' daily work processes. To ensure streamlined processes on a global scale, robots provide uniform quality of products to Chr. Hansen's customers. And not only that; they also speed up the analysis process and production time, thus bringing new products to the market faster.

Chr. Hansen's Pilot Plants also play a central role in its R&D value chain as they help deliver fast and safe, state-of-the-art biotechnological development processes; a pre-requisite for robust production of commercial cultures. The Pilot Plant in Nienburg, Germany, has been expanded to increase the capabilities within process development and capacity of sample delivery of Animal Health cultures, which in turn ensures robust production and superb and safe products for customers.



## SCIENCE-BASED, RESEARCH-PROVEN

With good bacteria at the heart of its business model, Chr. Hansen is a first mover in innovation and technology when it comes to understanding the complexities of the probiotic modes of action and the gut microbiome - in humans as well as in animals.

"In Chr. Hansen Animal Health & Nutrition, we work continuously to develop the products of tomorrow, enabling farmers to produce the high quality, sustainable and safe food that consumers demand worldwide," states Mickaël Rouault, senior director, Commercial Development.

This approach has not changed over the past 40 years. Added to feed, the science-based, research-proven products contain highly selected strains of good bacteria that have been shown to support normal intestinal function. In addition, they improve the availability of absorbable nutrients from feed by producing digestive enzymes.

"We pride ourselves in pioneering science and the quality of our products. That opens doors with distributors and customers alike as we continue to unlock the power of good bacteria and bring new innovations to market," Rouault concludes.