

bioMérieux launches SMARTBIOME[®] to help food manufacturers analyze spoilage and maintain product quality

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bioMérieux, a world leader in the field of *in vitro* diagnostics, announces the launch of SMARTBIOME[®], an innovative solution designed to help food manufacturers better understand, control and prevent microbiological spoilage. By combining high-precision DNA sequencing, advanced bioinformatics and bioMérieux's microbiology expertise, SMARTBIOME[®] provides actionable insights to protect product quality, reduce waste and better preserve consumer safety.

Every year, microbial spoilage contributes significantly to food waste and quality losses across the global food industry. Scientific estimates indicate that 15-20% of food is wasted after production, and part of the waste is due to spoilage, with microorganisms such as *Pseudomonas*, aerobic and anaerobic spore-formers, and fungi playing a major role in both fresh and processed foods and beverages.

For food manufacturers, these challenges lead to substantial economic losses, reputational risks and operational disruption. Identifying the microorganisms responsible for spoilage, understanding their origin and preventing recurrence remain complex and time-consuming tasks.

SMARTBIOME[®] addresses these challenges through an advanced, accessible platform for in-depth spoilage investigation. The solution combines high-resolution DNA sequencing with powerful bioinformatics and data science, an exclusive spoilage knowledge base, and bioMérieux's expert consulting services. Together, these capabilities transform complex microbiological data into clear, actionable insights.

Spot spoilage, act confidently and prevent contamination

The solution enables food manufacturers to accurately identify spoilage organisms at every stage of production, trace issues back to their root cause using data-driven insights and strengthen process controls. By monitoring microbiological trends over time, manufacturers can anticipate risks and proactively adjust their processes to prevent future spoilage events before they escalate.

"With SMARTBIOME, we are giving food manufacturers the ability to understand and control spoilage like never before," declared Alejo Migones, Senior Vice President, Food Safety & Quality. "By combining our microbiology expertise with powerful data science, we continue to enhance our Augmented Diagnostics approach by helping our customers run healthy and sustainable operations."

This innovative solution has been developed in close collaboration with the teams of Neoprospecta, a Brazil-based genomics and data science company acquired by bioMérieux in January 2025. The teams jointly work in establishing an international reference in technologies and solutions for microorganism analysis, identification and control. SMARTBIOME is already available for food manufacturers in several regions worldwide, including North America, Latin America and Europe.

"Through the development of sequencing and data-driven microbiology solutions, we move beyond isolated test results to deliver meaningful, actionable insights. This allows us to support food manufacturers more effectively, helping them improve processes and making bioMérieux a true long-term partner in their microbiological risk management and quality programs. Ultimately, these advances also contribute to delivering safer products to consumers," added Yasha Mitrotti, Executive Vice President, Industrial Applications, bioMérieux.