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Chiquita advances Banana innovation with completion of Yelloway Banana Pan-Genome

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Chiquita has announced a major advancement in banana innovation with the completion of the Yelloway banana pan-genome, a foundational scientific breakthrough designed to accelerate the development of disease-resistant and climate-resilient banana varieties.

The banana pan-genome is a groundbreaking achievement that provides researchers with a high-resolution map of the banana's genomic landscape, enabling deeper exploration and faster development of improved, disease-resistant varieties. This milestone highlights the importance of collaboration across the supply chain to advance global banana research and breeding.

Advancing Banana Genetics Through Yelloway

Developed through Yelloway B.V., an innovation joint venture between Chiquita and KeyGene, ("Yelloway") the banana pan-genome provides a comprehensive view of banana genetic diversity. By capturing the full range of naturally occurring variation, the pan-genome enables more precise research, supports biodiversity preservation, and strengthens long-term breeding efforts aimed at protecting the future of bananas.

Yelloway was created to unlock banana genetic diversity and advance classical breeding, supported by advanced genomic technologies. The pan-genome was developed by Yelloway using Oxford Nanopore sequencing technology, in collaboration with partners across the banana value chain, including Innocent Drinks, which provided match funding through its Farmer Innovation Fund.

Responding to Global Disease and Climate Challenges

The completion of the pan-genome comes at a critical moment for the global banana industry. As Fusarium wilt Tropical Race 4 (TR4) continues to spread and Black Sigatoka drives more than $100 million in annual protective costs, the ability to identify and deploy resilient genetic traits faster and more accurately has become increasingly essential.

Covering the genetic diversity of *Musa acuminata*â??the species underpinning widely recognized banana varieties such as Gros Michel and Cavendishâ??the pan-genome allows Yelloway to move beyond broad genetic exploration toward targeted breeding decisions. This approach accelerates the development of banana varieties that are more resilient to disease, better suited to a changing climate, and aligned with consumer expectations.

Global Dialogue at Fruit Logistica in Berlin

Chiquita shared insights from this work during Fruit Logistica in Berlin, where Stedman participated in the event's Sustainability Panel, highlighting the role of science-based innovation and cross-industry collaboration in building a more resilient banana supply chain.

Supporting Industry-Wide Collaboration

As part of its commitment to shared progress, Yelloway will provide academic researchers with access to the banana pan-genome through a dedicated web portal, supporting collaboration and continued advancement in banana breeding and research.