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Scientists find common genes defending global coffee plants against devastating disease

An international team of researchers from institutions including Nanyang Technological University, Singapore, Nestlé, Université de Montpellier, and the University at Buffalo has achieved a breakthrough in combating coffee leaf rust in Arabica plants by mapping the genomes of Arabica and its relatives, Robusta and *C. eugenoides*. This research, published in *Nature Genetics* by Jarkko Salojärvi et al., has identified genes that confer resistance to the disease, offering hope for breeding new, more resilient Arabica varieties. The study not only provides the most detailed Arabica genome reference to date but also traces the origin of Arabica coffee to a cross-pollination event between Robusta and *C. eugenoides* around 350,000 to 610,000 years ago. This genomic insight is expected to facilitate the development of Arabica coffee plants with improved disease resistance, drought resilience, and crop yield, without sacrificing the beloved aroma and taste, thereby ensuring the sustainability of the global coffee industry which supports the livelihoods of 125 million people.

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