

Abstract

Beyond the Orthodoxy: An Overview of the Potential of ‘Other’ Coffee Species for Crop Use and Their Associated Challenges [†]

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Abstract: *Coffea arabica* (Arabica) and *C. canephora* (Robusta, Conilon) have satisfied the requirements of the coffee sector for the last 125 years. In the face of myriad challenges, most notably climate change, the coffee species crop portfolio requires diversification to ensure the long-term sustainability of coffee production. In addition, the specialty coffee sector relies on continual diversification and creativity to satisfy the requirements of its adherents, including the enrichment and diversification of the sensory experience. In this contribution, a review is presented on the status of ‘other’ coffee species to supplement *C. arabica* and *C. canephora*, based on research and first-hand experience. The aim is to address misinformation (e.g., global production figures, yields, climate tolerances, and cup profiles) concerning wild and ‘other’ species, identify opportunities, and highlight constraints. In the short-term, Liberico coffee species, including *C. liberica* (Liberica) and *C. dewevrei* (Excelsa) coffee, offer substantial opportunities, especially for climate resilience. Over the longer term, other species (such as *C. stenophylla*) and inter-species hybrids offer considerable promise. Unlike *C. arabica* and *C. canephora*, research and development for other *Coffea* crop species is in its infancy and will require significant development. One of the other major constraints for *Coffea* crop species development is access to genetic resources. In the face of climate change, the coffee breeding challenge is now more demanding than ever.

Keywords: Arabica coffee; Robusta coffee; Liberica coffee; Excelsa coffee; Stenophylla coffee; species; climate change; genetic resources; breeding



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