

A registry of Philippine coffee varieties and SNP markers for improved production

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ABSTRACT

Before the late 1980's, the Philippines was a major global exporter of coffee, exporting USD 100M annually. Today, the country is a net exporter requiring up to USD 60M in imports every year and the demand is expected to grow by 3-4% annually. Renewed interest in developing the coffee industry, from both the government and private sectors has increased investment in opening new land for growing coffee and rehabilitating existing plantations by planting new trees. Coffee beans to coffee are like grapes to wine. The quality of the final product and the efficiency of production are dependent on the variety of coffee planted, the conditions of rearing and post-harvest processing. Much of the information related to this, however, is anecdotal and unavailable to users. Through this project a registry of coffee varieties has been established at NCRDEC, where a reference collection of coffee varieties and site associated information may be accessed. Occurrence maps of coffee varieties, production statistics and local knowledge on performance and consumer preferences will also be available through a searchable database and the website. By the end of the year, the project will have maps on the most suitable sites for coffee variety strains based on GIS models generated using Maxen 3.0 and candidate SNP markers for variety identification and breeding.

KEYWORDS: Philippine Coffee; Coffee variety mapping; Genomics