

Breeding for Disease and Pest Resistance, and Improved Quality in Coffee

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ABSTRACT

Apart from yield, disease resistance and quality are the major preoccupation of most improvement programmes in Coffee. The reason being, disease and pest control account for a large proportion of farming costs while coffee quality determines the desirability and thus the pricing of Coffee. In this presentation, the major diseases and pests of Coffee where attention is focused on development of resistance are discussed. In particular, an account is given of the major breakthroughs and strategies employed in breeding for stable and durable resistance to two of the most devastating diseases of coffee, Coffee berry disease (*Colletotrichum kahawae*) and Coffee rust (*Hemileia vastatrix*).

In most of these programmes, improved coffee quality attributes are invariably considered among the ultimate goals. Whereas determination of berry and bean characteristics is fairly straightforward, aroma and flavor attributes present difficulties. An account is given of breeding and selection for improved bean and cup quality, the latter relying mainly on conventional organoleptic evaluation. It is postulated however, that development of reliable laboratory procedures that relate specific chemical compounds to cup quality could have important bearing on genetic improvement of cup quality in coffee.