

Potato Taste Defect in Rwandan Coffee

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Rwandan coffee is afflicted with a defect known as “potato taste defect” (PTD) that gives the beans a distinct and unpleasant aroma, especially once roasted, that renders the beans unsellable. The exact cause of this defect is unclear; it has been previously linked to insects in the genus *Antestiopsis*, more commonly referred to as antestia, which feed on coffee cherries and may result in the infection of the coffee beans. This has led to growers discarding damaged beans; in addition, any beans with PTD that make it to cupping (the analysis of a coffee sample’s aroma and taste characteristics) are also rejected. Both of these result in yield losses that harm the Rwandan farmers and economy; in 2008, approximately a quarter of Rwandan coffee exports were lost due to potato taste.

The goal of this project is to analyze the surface volatile organic compounds (SVOCs) of approximately sixty samples of green coffee, both with and without PTD, through gas chromatography and mass spectrometry (GCMS). This analysis will allow us to correlate the profile of chemicals found in the beans with PTD, which will hopefully point us toward the specific cause of PTD.