Characterisation of Cassava mosaic disease (CMD) in Zimbabwe

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Cassava is becoming an increasingly important crop in Zimbabwe. It has low maintenance requirements and can be grown in areas with marginal soils and erratic rainfall. This makes it a good security crop for resource-limited subsistence farmers. In addition, its potential use in industry for starch and biofuel production are rapidly becoming realised. A new outgrower scheme based on Cassava for biofuel has recently been approved by Government. With the production of Cassava set to increase in the country it is essential that the virus that causes Cassava Mosaic Disease (CMD) be characterised in Zimbabwe. At least seven distinct bipartite cassava mosaic begomovirus species are associated with the disease in sub-Saharan Africa (Rey et al., 2012) but only a single Zimbabwean isolate has been partially described 10 years ago (Briddon et al., 2004). It was concluded that the isolate was a strain of South African cassava mosaic virus (SACMV) (Briddon et al., 2004). We have identified primers that will enable us to start the characterisation of CMD in Zimbabwe. We will use these primers to determine the most common strain of CMD in the country and this strain will be fully characterised. We intend to use this information to develop a strategy for the introduction of virus resistance to the Zimbabwean cultivars of Cassava and we intend to use both genetic modification and conventional breeding techniques to do this.

Keywords: Cassava, Cassava mosaic disease, resistance