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Cassava Brown Streak Disease: A Major Threat to Food Security in Africa

Basavaprabhu L. Patil[1,2]*, James P. Legg[3], Edward Kanju[3] and Claude M. Fauquet[2,4]

[1]National Research Centre on Plant Biotechnology, IARI, Pusa Campus, New Delhi, India
[2]Donald Danforth Plant Science Center, N. Warson Road, St. Louis, MO 63132, USA
[3]International Institute of Tropical Agriculture, PO Box 34441, Dar-Es-Salaam, Tanzania
[4]Centro Internacional de Agricultura Tropical, Apartado Aéreo 6713, Cali, Colombia
**Corresponding Authors E. mail: blpatil2046@gmail.com*

Abstract: *Cassava brown streak disease (CBSD) has emerged as the most important viral disease of cassava or tapioca (Manihot esculenta) in the African continent. It has become a major threat to food security of millions of people in Africa. CBSD is caused by two different species of ipomoviruses (Family: Potyviridae), Cassava brown streak virus (CBSV) and Ugandan cassava brown streak virus (UCBSV). Both CBSV and UCBSV are the first described members of the family Potyviridae encoding a single P1 serine proteinase, which acts as a silencing suppressor, but lacks HC-Pro and contains an additional ORF called HAM1h. Earlier CBSD was reported only from the coastal areas of East Africa, but of late it has begun to spread as an epidemic throughout the Great Lakes region of East Africa and Central Africa. This new spread poses a major threat to the cassava-cultivating regions of West Africa. CBSD resistant cassava cultivars are being developed through breeding and transgenic RNAi-derived field resistance to CBSD has also been demonstrated. Here we discuss the most important studies on aetiology, epidemiology and control of CBSD and highlight key research areas that need prioritization.*