



Construction of Full-length infectious clones for Ugandan cassava brown streak virus (UCBSV)

Sarah Nanyita

National Crops Resources Research Institute (NaCRRI), Uganda

Abstract:

Statement of the Problem: Infectious clones are important tools for understanding viral pathogenesis which can allow for development of appropriate viral control strategies. Infectious clones can also be used as a uniform viral source for testing breeding lines. For cassava brown streak virus, there has been a lack of infectious clones which has limited the potential to effectively understand the viral pathogenesis mechanism of this virus. The purpose of this work was to construct full-length infectious clones of Ugandan cassava brown streak virus. The infectious clones are to subsequently be used in screening cassava breeding lines for resistance to the virus. The infectious clone was found to infect both the model host plants *N. benthamiana* and the target cassava plant. The infections caused by the generated infectious clones were similar to those caused by the wildtype UCBSV virus. **Conclusion & Significance:** This work has provided the first report on the construction of full length infectious clones of UCBSV virus. The infectious clones are further going to be very useful tools in understanding UCBSV viral pathogenicity and hence guide in control of the virus.



Biography:

Sarah Nanyita is a Motivated and result-oriented scientist with 10+ years' experience in Molecular Biology, Immunology, Cell Biology, and Plant Virology/Pathology at National Crops Resources Research Institute (NaCRRI), Uganda

Recent Publications:

1. Strategies for the Construction of Cassava Brown Streak Disease Viral Infectious Clones