

Identifying Alternative Host(S) Of Groundnut Rosette Disease Virus Complex

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Groundnut crop losses due to Groundnut rosette disease (GRD) are endemic across Sub-Saharan Africa. The disease causes significant economic losses, jeopardizing food security and the livelihoods of groundnut farmers. To date, no alternative host plants have been identified that could act as a source of inoculum. subsequently, the epidemiology of the disease is poorly understood, creating gaps in disease management options. GRD is caused by an interaction of 3 agents; groundnut rosette assistor virus (GRAV), groundnut rosette virus (GRV) and the satellite RNA (satRNA) of GRV. The disease is transmitted persistently by the aphid, *Aphis craccivora* Koch.

In this study, we have surveyed 3 GRD hotspots and 1 major growing district in the different agro ecological zones of Uganda for GRD. In each zone, plants showing GRD symptoms and/or having colonies of *Aphis craccivora* were identified and samples were collected.

Using RT-PCR, we have tentatively identified two alternative hosts that have all the 3 GRD agents. Two additional plants tested positive for both GRAV and either satRNA or GRV, suggesting they could also be alternative hosts. The list could grow bigger as more analyses are ongoing. Vector transmission studies are in progress and will confirm if the alternative host can act as sources of inoculum for groundnut.