D-08 Evaluation of cassava for reaction to a potyvirus

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Cassava (*Manihot esculenta* L.) has been reported to be affected by a number of virus or virus-like agents. Major diseases are caused by members of potyvirus, potexvirus, caulimovirus, phytoreovirus and geminivirus groups. Losses caused by some of these viruses have been reduced through cultural practices. However, the use of resistant lines has proved to be the most effective method of controlling many of these diseases.

In Sri Lanka, a potyvirus related to papaya ringspot has been reported to cause a severe disease in cassava. No information is available on the varieties susceptible or resistant to this virus. Therefore, a screening trial was conducted under greenhouse conditions at the University of Sri Jayewardenepura.

Eight cassava lines, MU 51, Kirikavadi, CARI 555, CARI I-2, BW1, BW2, Wagolla and Wariyapola obtained from Horticultural Research & Development Institute, Makandura, along with wild cassava, were screened for virus susceptibility by graft inoculation. Disease ratings were based on the foliar symptoms expressed by the test clones.

No lines showed resistance to the disease. Based on the symptom severity and the ability to produce symptoms at high temperature, MU 51, Kirikavadi and wild cassava were found to be highly susceptible to this virus. The lines BW1, Wariyapola and CARI 555 were less susceptible while, BW2 Wagolla and CARI I-2 were tolerant.

Since resistant lines were detected among the group tested, there is a need to continue efforts to identify cassava germplasm resistant to this virus. Resistant cultivars are particularly useful in controlling potyviruses, which are transmitted by aphids in a non-persistent manner, therefore, killing vectors using insecticides is not effective.