

Stopping the Rot

Outputs from CPP cassava projects based in southern Tanzania (R6614, R7563) have been adopted by agricultural rehabilitation programmes in Mozambique that provide the poor with the means and skills to feed themselves. The rural population in Mozambique found their farmland destroyed after the civil war, and recent floods and drought have deepened their poverty. One of the world's largest concentrations of cassava cultivation is to be found in northern Mozambique where it is a vital source of food security for many rural poor. NGOs including World Vision and Save the Children are helping at least 1.6 million farmers turn abandoned land into productive farms but the impact of their agricultural development programmes (ADPs) has been jeopardised by cassava virus diseases, including cassava brown streak disease (CBSD) and cassava mosaic disease (CMD).



Necrosis in this cassava tuber infected with CBSD reduces yield and extra labour is needed to remove the damaged necrotic parts

The symptoms of CBSD are very variable and, in some cultivars, occur on the leaves but foliar symptoms alone are unreliable for diagnosis as the damaging root necrosis may be present. After planting a diseased cutting, root necrosis begins to appear in the more sensitive cultivars from four months but does not become severe until 6–8 months after planting.

CBSD impacts on rural livelihoods in the following ways:

- To avoid the more severe symptoms of root necrosis, the crop is harvested early, resulting in loss of yield.

- Early harvesting reduces food security as the roots cannot be stored in the field.
- Additional labour is needed as women must remove necrotic areas before drying the peeled roots.

A review of their cassava programmes, requested by a consortium of ADPs, highlighted the importance and extent of the problem and prompted the consortium to provide additional funds for advisory visits thereby facilitating the transfer of knowledge gained through the CPP project in Tanzania to Mozambique. This includes:

- methods for disease incidence and severity assessments
- methods to select cassava varieties for disease resistance
- assessment of variety performance in presence of CBSD and CMD
- emphasis on importance of exploiting resistance in 'local' cultivars
- development of virus-free stocks by roguing.

All recent knowledge on CBSD and its management obtained by this CPP project will continue to be adopted by IITA/SARRNET. As a direct result of project findings in Mozambique, CBSD has been given the highest priority in IITA's programme of variety improvement for the East African coastal belt – now being funded by the Rockefeller Foundation. Moreover, USAID have provided US\$1 million to SARRNET for distribution of improved cassava varieties in Mozambique. This funding was part of a flood relief programme, but the production and distribution of CBSD-free and CMD-free planting material became a major component of the project once advisors realised the importance of CBSD in northern Mozambique. IFAD have also agreed to provide support to IITA to develop a cassava IPM project that will have a major component devoted to CBSD. Further CPP research outputs will continue to underpin these programmes.

R7563: Management of cassava brown streak disease and mosaic disease in eastern and southern Africa.

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