

Efforts in Mitigating Cassava Mosaic Disease Crisis in the Republic of Congo-Brazzaville

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Introduction

Cassava (*Manihot esculenta* Crants) is the main food staple and source of income of the population of the Republic of Congo. It constitutes the backbone of the farming system and the main commodity of the Congo population. Its consumption per capita is the highest on the continent (FAO, 2003). However, since 1997/98 the cassava mosaic virus disease (CMD) has become the most important constraint to production. It is threatening cassava production and the food security having already caused food shortage in the country. In 1999 the government of the Republic of Congo asked IITA to evaluate the cassava plant health status.



Fig.1a



Fig. 1b

Farmers complained bitterly about the impact of the disease and noted that it had only become apparent over the course of the last two or three years (Figure 1a & 1b). In view of IITA's experience in monitoring and managing the pandemic of severe CMD in East Africa, infected leaf samples were collected and taken to IITA's laboratories to be tested for the presence of the severe virus strain (EACMV-Ug or Uganda Variant) associated with the East African pandemic. Diagnostic tests of CMD-diseased samples collected in the Plateaux region revealed the presence of EACMV-UG, suggesting the possibility that the pandemic of severe CMD had expanded right across Central Africa (Neuenschwander et al., 2002.). The identified cassava mosaic virus strain is similar to the one that destroyed cassava production in Uganda in the 90's as it can cause up to 100% of yield losses, prompting farmers to abandon cassava production (Tresh et al., 1994). This immediately raised concern about the possibility of further spread of severe CMD and a major potential threat to cassava production and to the country's food security.

IITA interventions

The USA Embassy in Brazzaville requested an urgent intervention from OFDA through the Cassava Mosaic project managed by IITA in East Africa. Subsequently, IITA conducted two follow-up diagnostic surveys in 2002 and 2003 that have shown that severe CMD has spread throughout the country. Results of the 2003 survey showed a total incidence of 86.2% which was more important than that of the previous year (80.3%), and with very severe symptoms particularly in Niari and Cuvette Ouest regions (Figure 2a & 2b). As a consequence of the depressed production due to CMD and other pests and diseases, the price of cassava and its products in rural villages, urban centres and towns has risen dramatically and many people are unable to afford enough quantity to meet their food needs.

The high incidence of cutting-infected plants (73.6% in 2002 and 81.7% in 2003), the relatively low incidence of whitefly-borne infection and the wide distribution of either EACMV-UG2 and or ACMV, all together suggested that the CMD pandemic affected the country some years back. The situation necessitated an emergency program to mitigate the CMD disease

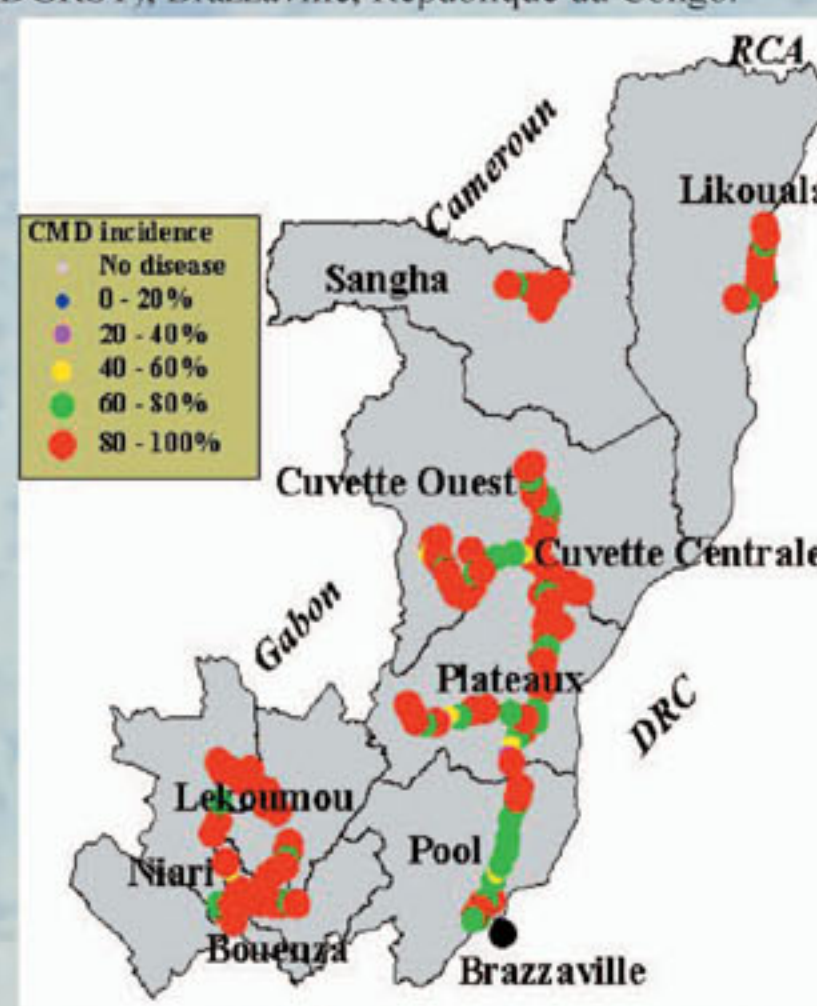


Fig. 2a

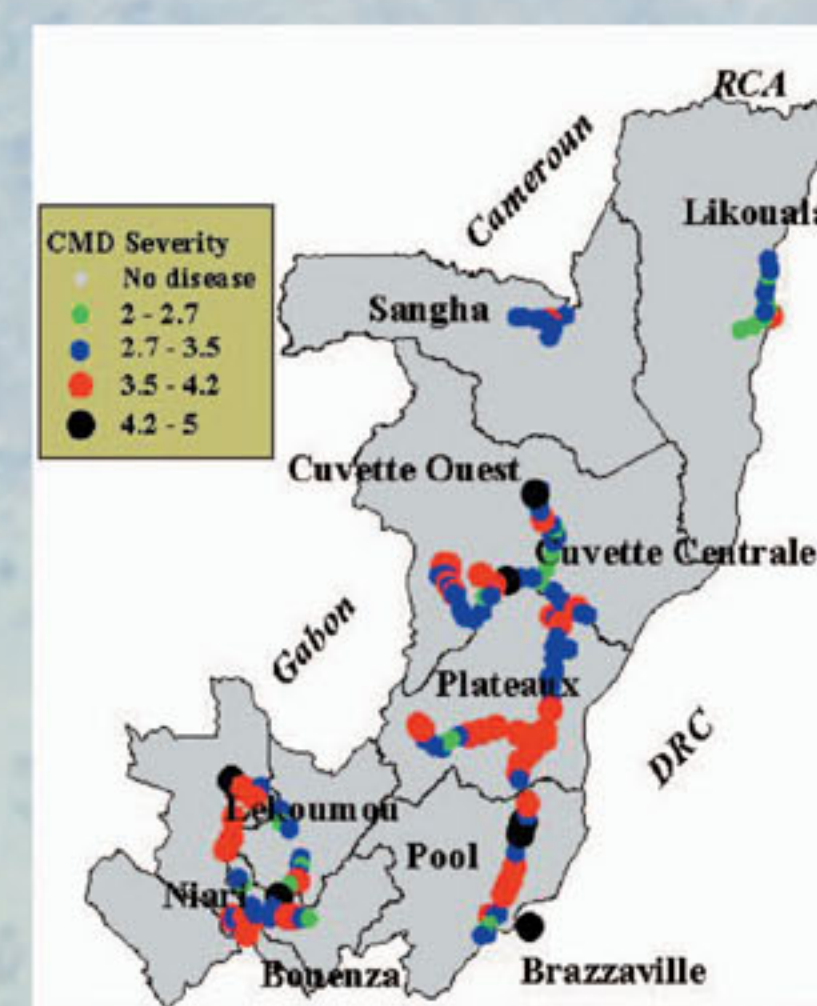


Fig. 2b

Apart from the monitoring surveys, IITA in collaboration with the national cassava team, initiated the introduction and the evaluation of resistant germplasm in the major hotspots of the disease (Fig. 3). Also the germoplasm collection and the training of staff and farmers were some of the additional steps taken in combating the CMD pandemic in Congo.



Way forwards

This CMD disease situation in Congo is comparable to what happened in areas of East Africa during the 1990s, especially Uganda and parts of western Kenya. It is therefore imperative that a cassava research program be formed and institutionalised to coordinate all efforts to mitigate the effects of CMD in the country. A project proposal "Development of cassava technologies and enterprises for improved livelihood in Congo" was submitted to donors in this effort of mitigating the CMD effects.

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