

An illustration depicting integrated pest management for root and tuber crops. The scene is set against a blue sky with white clouds and rain falling from one cloud. In the foreground, a large plant with a thick, textured stem and several large, pointed leaves stands in a field. To the left, a hand holds an axe, ready to chop. To the right, a hand holds a spray nozzle with a skull and crossbones symbol, spraying a substance onto the plant. A small insect is shown near the base of the plant. The ground is shown in cross-section, revealing the plant's root system and a tuber. The overall style is a simple line drawing with a textured background.

# *Integrated pest management in root and tuber crops*

*Protection intégrée des plantes à racines et tubercules*

Edited by  
P. Neuenschwander, H.R. Herren and A. Wodageneh  
Biological Control Program, International Institute of Tropical Agriculture

## **Breeding cassava for multiple pests resistance in Africa**

S. K. Hahn, A.G.O. Dixon, and R. Asiedu.  
International Institute of Tropical Agriculture,  
Ibadan, Nigeria.

---

The major constraints to stable production of cassava in Africa are diseases, insects, mites, weeds, soil and agronomic constraints, and socioeconomic factors. Among the economically important diseases, African cassava mosaic virus (ACMV), bacterial blight (CBB), and anthracnose (CAD) are the most important. The green spider mite (CGM) and the cassava mealybug (CM) are by far the most important arthropod pests of cassava. The long growing period and the diverse agroecologies, in which cassava cultivars are grown, expose them to one or more of these pests, which can be devastating. Multiple pest resistance ensures stability of crop performance. IITA's research experience, progress, and prospects in breeding cassava resistant to the pests of the highest economic importance in Africa are discussed.

**Manioc en Afrique: sélection d'une résistance multiple aux ravageurs.** En Afrique, les principales contraintes à la stabilité de la production de manioc sont les maladies, les insectes, les acariens, les adventices, le sol ainsi que les facteurs agronomiques et socio-économiques. Parmi les plus importantes maladies, citons la mosaïque, la bactériose et l'anthracnose. Les acariens verts et la cochenille farineuse du manioc représentent les ravageurs arthropodes les plus redoutables. Le manioc, caractérisé par un long cycle de croissance, est cultivé dans différentes zones agro-écologiques. Il est par conséquent exposé à un ou plusieurs de ces ravageurs. Une résistance multiple aux ravageurs garantit la stabilité des rendements. Le présent exposé évalue la recherche menée à l'IITA, les progrès obtenus et les perspectives de la sélection du manioc pour sa résistance aux ravageurs d'importance économique.