

GMOs could make bananas more profitable in Africa

Bananas are one of the most popular fruits in Africa and feed more than 100 million Africans. However, bananas are subject to severe productivity constraints due to a range of pests and diseases. [Xanthomonas wilt disease] is capable of entirely destroying a plantation while nematodes can cause losses up to 50% and increase susceptibility to other pests and diseases.

The development of improved GM varieties, which would be more resistant to these threats, could be the key to tackling these challenges. However, the sterile nature of the crop and the lack of resistance in Musa germplasm makes improvement by traditional breeding techniques either impossible or extremely slow.

Recent developments using genetic engineering have begun to address these problems. Transgenic bananas, expressing sweet pepper Hrap and Pflp genes, have demonstrated complete resistance to [Xanthomonas wilt disease] in the field. Transgenic plantains expressing a cysteine proteinase inhibitor and/or synthetic peptide, showed enhanced resistance to a mixed species population of nematodes in the field.

Source : <http://onlinelibrary.wiley.com/doi/10.1002/fes3.101/full>

Lien article : <http://www.freshplaza.com/article/173530/GMOs-could-make-bananas-more-profitable-in-Africa>