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George Mahuku, Henry Sila Nzioki, Charity Mutegi, Fred Kanampiu, Clare Narrod, Dan Makumbi

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Pre-harvest management is a critical practice for minimizing aflatoxin contamination of maize

George Mahuku[a], Henry Sila Nzioki[b], Charity Mutegi[c], Fred Kanampiu[c], Clare Narrod[d] and Dan Makumbi[e]

[a]International Institute of Tropical Agriculture (IITA), P.O. Box 34441, Dar es Salaam, Tanzania. [b]Kenya Agricultural and Livestock Research Organization (KALRO), P.O. Box 57811-00200, Nairobi, Kenya; [c]International Institute of Tropical Agriculture (IITA), P.O. Box 30772-00100, Nairobi, Kenya; [d]University of Maryland, 5201 Paint Branch Parkway, College Park, MD 20742; [e]International Maize and Wheat Improvement Center (CIMMYT), P.O. Box 1041-00621, Nairobi, Kenya.

Corresponding author: George Mahuku (g.mahuku@cgiar.org); International Institute of Tropical Agriculture (IITA), P.O. Box 34441, Dar es Salaam, Tanzania

Abstract

Maize, the main dietary staple in Kenya, is one of the crops most susceptible to contamination by aflatoxin. To understand sources of aflatoxin contamination for home grown maize, we collected 789 maize samples from smallholder farmers' fields in Eastern and South Western, two regions in Kenya representing high and low aflatoxin risk areas, respectively, and determined aflatoxin B_1 (AFB_1) using ELISA with specific polyclonal antibodies. AFB_1 was detected in 274 of the 416 samples from Eastern Kenya at levels between 0.01 and 9091.8 µg kg^{-1} (mean 67.8 µg kg^{-1}). In South Western, AFB_1 was detected in 233 of the 373 samples at levels between 0.98 and