

The Fate of Afiatoxins During Processing of Maize into Muthokoi - A Traditional Kenyan Food

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Abstract.

The effect of processing muthokoi, (a traditional dehulled maize dish in Kenya) on aflatoxin content of naturally contaminated maize was investigated. Dehulling decreased aflatoxin levels by 46.6% (5.5-70%) in maize samples containing 10.7-270 ng/g aflatoxin levels. Soaking muthokoi in 0.2%, 0.5% and 1.0% solutions of iati, sodium hypochlorite or ammonium persulphate for 6 or 14 h further decreased aflatoxin contents by 28-72% in maize samples containing 107-363 ng/g aflatoxin levels, and boiling muthokoi at 98°C for 150 min in 0.2-1.0% w/v iati decreased aflatoxin contents by 80-93% in samples having 101 ng/g aflatoxin contamination. Findings imply that exposure to acute aflatoxin levels in maize is minimised during processing and preparation of muthokoi.

Keywords.

Afiatoxins, maize, muthokoi - A traditional, Kenyan food.