

APPLICATION OF HACCP IN MANAGING COMMON HAZARDS IN SMALL SCALE PEANUT PASTE PROCESSING INDUSTRIES IN UGANDA



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Introduction

Peanuts are one of the main components of the Ugandan diet (Page *et al.*, 2002). Unfortunately their quality can be reduced by a number of factors that compromise food safety and these include microbial pathogens, chemical contaminants and physical hazards. HACCP has been successfully applied to prevent and control risks associated with potential contamination of food (FAO, 2001). The overall objective of the study therefore, was to improve consumer's health through reduction of hazards in peanut products using HACCP.

Materials and methods

- Training of processors on HACCP
- Development of a site specific HACCP plan.
- Processors participate voluntarily in the study.
- Analysis of the samples for foreign material, total bacterial load (TPC), yeasts and molds, and aflatoxins.

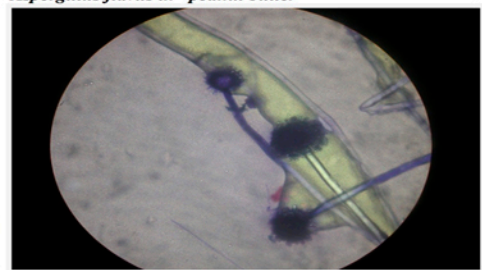
Results and discussion

- Physical hazards were < 1% in all samples.
- Microbial analysis was positive for total bacterial count in all samples
- Over 80% of samples tested positive for yeasts and molds (raw, roasted and peanut butter).
- *Aspergillus flavus* was the most commonly occurring mold in all samples.
- Aflatoxin levels in peanut products from all processors (trained in HACCP and untrained) were > 10 ppb (min. UNBS recommended).

Farmers drying peanuts on the ground

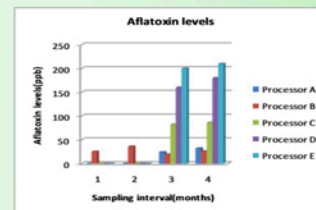
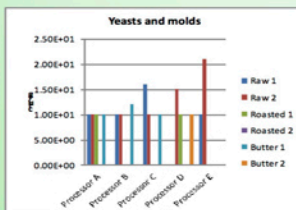
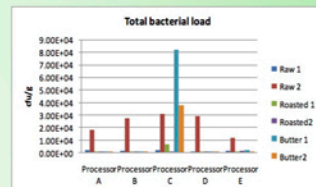
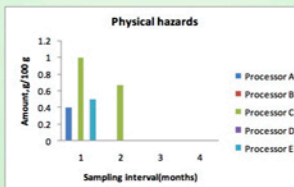


Aspergillus flavus in peanut butter



Conclusions and Recommendations

- There was no significant difference in microbial and physical hazards from processors trained and untrained in HACCP.
- Significant difference was observed in aflatoxin levels between trained and untrained processors.
- More research should be done to establish the reasons/obstacles in HACCP implementation



Processors A, B and C were trained; Processors D and E were not trained

References

- Page, W.W *et al.* (2002). Peanut manual for Uganda: Recommended Peanut Production practices for smallholder farmers in Uganda. NRI-University of Greenwich.
- FAO. (2001). Manual on the application of the HACCP system in Mycotoxin prevention and control. Rome.

Acknowledgement

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