



## Risk assessment for the occurrence of *Escherichia coli* 0157:H7 in indigenous fermented milk (Lee Naga a Agbora) produced in Uganda

SA Wawa

ML Sserunjogi

P Ogowok

D Mugampoza

DOI: [10.4314/apra.v5i2.49823](https://doi.org/10.4314/apra.v5i2.49823)

**Keywords:** Fermented milk, Lee naga a agbora, food-borne pathogens, *Escherichia coli* 0157, H7

### Abstract

Different types of indigenous fermented milks are widely consumed in pastoralist communities of Africa, including Uganda. Local processing of milk generally takes place under uncontrolled hygienic conditions. Lee naga a agbora, a locally fermented milk product in northern Uganda, was evaluated for microbial contamination. The changes in pH, Total Plate Counts (TPC), Total Coliforms (TC), yeasts and moulds, and *Escherichia coli* 0157:H7, particularly its survival during different stages of fermentation were studied. The pH was found to decrease with fermentation time (6.54 to 4.54). *E. coli* was detected in most samples of Lee naga a agbora and its occurrence was observed throughout the fermentation period. The mean value of TPC ( $6.60 \pm 0.10$  log cfu ml<sup>-1</sup>) at the start of fermentation was significantly different ( $p < 0.05$ ) from that at 144 hours ( $7.91 \pm 0.10$  log cfu ml<sup>-1</sup>). The TPC was not significantly different ( $p > 0.05$ ) between 48 and 72 hours. The rate of decrease in TC counts in the initial fermentation period (0 to 48 hours) was lower than the later stages of fermentation (48 to 144 hours). Yeast and mould counts increased with fermentation time (6.20 to 7.42 log cfu ml<sup>-1</sup>). On the whole, there is risk associated with consumption of Lee naga a agbora given the occurrence of *E. Coli*.

PDF

Issue

[Vol. 5 No. 2 \(2009\)](#)

Section

Articles

Copyright for articles published in this journal is retained by the journal.



### HOW TO USE AJOL:

- [for Researchers](#)
- [for Librarians](#)
- [for Authors](#)
- [FAQ's](#)

### RESOURCES:

- [for Journals](#)
- [for Researchers](#)
- [for Authors](#)
- [for Policy Makers](#)

### GENERAL:

- [About Open Access](#)
- [Journal Quality](#)
- [More about AJOL](#)
- [AJOL Usage Stats](#)
- [AJOL's Partners](#)
- [AJOL supported by](#)
- [Terms and Conditions of Use](#)
- [Whistle-blowing Policy](#)
- [Contact AJOL](#)

AJOL is a non-profit, relying on your support.

Donate



### Subscription

Login to access subscriber-only resources.

### 556 African Journals

- [By Category](#)
- [Alphabetically](#)
- [By Country](#)
- [List All Titles](#)
- [Free To Read Titles](#) 

### Journal Identifiers

eISSN: 0794-4721