P.O. BOX 346 BULAWAYO



## NATIONAL UNIVERSITY OF SCIENCE AND

TECHNOLOGY

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PROJECT TITLE:

Isolation and identification

of Enterobacteriaceae from biscuit powders.

Project submitted in partial fulfilment of the requirements of the Bachelor of Applied Sciences Honours.

(Biology and Biochemistry)

PROJECT SUPERVISOR PROF. R N OKAGBUE





## **ABSTRACT**

A total of 10 samples of biscuit powders were collected randomly over a period of weeks. They were analyzed by spread-plating 0.1ml of suitable dilutions of the samples on MacConkey agar plus 1% glucose. Average plate counts of all the samples ranged from  $1.0 \times 10^{4}$  to  $4.0 \times 10^{4}$  cfu/g.

For identification, representative colony types were purified and preserved on nutrient agar (NA) slopes before tests from a dichotonous key were carried out on the isolates. Of the 21 islates obtained 15 were gram-negative rods, probably Enterobacteriaceae. The other 6 isolates were all gram- positive cocci which makes them probable staphylococci.