



**BUSITEMA
UNIVERSITY**
Pursuing Excellence

**FACULTY OF ENGINEERING
DEPARTMENT OF AGRICULTURAL MECHANISATION AND
IRRIGATION ENGINEERING**

**DESIGN AND CONSTRUCTION OF A MOTORIZED ORGANIC
MANURE CRUSHING MACHINE**

BY

WANDERA JACKSON MACHO

BU/UP/2014/178

TELL: +256780625833 OR +256753939626

EMAIL:machojackson2016@gmail.com

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University*

DECLARATION

I **WANDERA JACKSON MACHO** declare to the best of my knowledge that the information contained in this report is as a result of my research and effort and it has never been presented or submitted to any institution or university for the award of the Bachelor's Degree in Agricultural Mechanization and Irrigation Engineering.

Signature

.....

Date

.....

APPROVAL

This project report has been submitted for examination with approval from:

SUPERVISOR: MR BWIRE DENIS

Signature

.....

Date

.....

SUPERVISOR: MR OBETI LAWRENCE GRISM

Signature

.....

Date

.....

DEDICATION

I dedicate this report to my beloved parents Mr. Okumbe Hum Macho and Mrs. Akumu Mary Macho of Bunyadeti, Busia who supported me both morally and financially through my struggle since childhood, my sisters and brothers whose love, care, support, encouragement, patience and belief in me got me this far, May the almighty God reward you abundantly

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ABSTRACT

The organic manure crusher was designed and constructed from locally available materials for crushing the cow dung into small size particle enough to pass through the holes of the detachable concave sieve positioned beneath the hammer assembly. The crushing process is achieved by the use of swinging hammers in beating the material fed into fine particles. Based on the power ratings and output shaft speed of the existing grinding machines in industries; it was found that the rotor shaft speed of 1500rpm is suitable to crush the cow dung. The machine was designed to be motorized and portable with overall dimensions of 790 x 400 x 1070 mm.

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