FACULTY OF ENGINEERING

DEPARTMENT OF AGRICULTURAL MECHANISATION AND IRRIGATION ENGINEERING.

DESIGN AND CONSTRUCTION OF AN AUTOMATED CHICK BROODING MACHINE (ACBM).

By

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A final year project report submitted in partial fulfilment of the requirement of the award of a BSc in agricultural mechanization and irrigation engineering of Busitema University.

Abstract

Brooding is the period immediately after hatching when special care and attention must be given to chicks to ensure good health and survival. It can also be defined as the process by which heat is supplied to newly hatched chicks, until such time that their thermo-regulatory mechanism is functional. The objective of this design work was to make use of locally available materials to construct an automated poultry brooding machine and to test the performance of the constructed brooder. The brooder was constructed in a symmetrical two-sided roof structure of height 70cm, width 60cm, and length of 120cm. Programmable micro-Controller was used as an environmental controller in order to direct the heater, bulb and fan thus controlling the environmental conditions. The result of the tested brooder gave us an efficiency of 94.59% making use of the observed maximum temperature of the brooder. Therefore, the brooder was constructed in a portable form for ease of handling and to help farmers brood their chicks on larger scale.

Acknowledgement

I do appreciate God almighty from whom wisdom, knowledge and understanding flows. my unalloyed appreciation goes to my supervisor Eng.: Godfrey Ssajja Ssali, for the extra ordinary support, guidance, knowledge and advice that you readily provided during the preparation of this final year project, more thanks are extended to the entire staff of Agricultural Mechanization and Irrigation Engineering Department especially Mr. Ambrose Ashababahebwa who readily gave me a go ahead to work on this project. Lastly to all my fellow students in AMI class of 2016 who rendered all that was with in their reach towards the compilation of this final year project report, only God the almighty can reward you generously

DECLARATION

I Mazaki David declare that the work presented in this project report is my own and has never been presented to any University or higher institute of learning for any academic award.

Signature……

Date……

APPROVAL

This final year project report has been submitted to the Department of Agricultural mechanization and Irrigation Engineering for examination with approval from:

Supervisor:

Name……

Signature……

Date……

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