MAKERERE UNIVERSITY

COLLEGE OF COMPUTING AND INFORMATION SCIENCES
DEPARTMENT OF COMPUTER SCIENCE
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LECTURER: MR.ERNERST MWEBAZE

No.	Student Name	RegNo	StdNo
1	**NASSIMBWA DOREEN**	*16/U/10016/EVE*	*216004538*
2	**KATENDE PAUL**	*16/U/5599/EVE*	*216007292*
3	**ODEKE MOSES**	*16/U/10748/PS*	*216016894*
4	**AINEMUKAMA DINTON HAROLD**	*16/U/3020/PS*	*216007270*

Implementation of an Automated Records Management System on a Poultry Farm

1 Introduction

1.1 Background of Study

The need for, use and benefits of information for farm decision making has engaged the attention of farmers, researchers and policymakers over the years. Information is data that has been transformed into a form that is meaningful and useful for decision-making with data distinguished as raw facts, figures, objects et cetera. The system about information relates to the connection or integration of components of collection, processing, storage, and distribution of information to support decision-making. By extension of this non-farm definition, farm information systems (FIS), then, can be appreciated as a tool to assist farms in forward planning, risk management, and by the use of information. Poultry production enterprises require good information systems to ensure success.

1.2 Statement of the Problem

Many poultry farmers still make use of the manual approach of keeping farm records. The consequences of this approach are it is time consuming, needed information may easily be misplaced, un-organized and inefficient. Also, needed reports concerning different aspects of the farm cannot be easily retrieved when needed. This situation makes it to monitor the state of the birds in the poultry, income and expenses and other relevant information. To overcome these problems there is need for an information system for proper management of the poultry farm.

1.3 Objectives

1.3.1 General objectives

To develop an automated poultry keeping information system.

1.3.2 Specific Objectives

- To automate the manual means of recording poultry farm records.
- To develop a database application that can be used to maintain and provide information about livestock and financial information aspect of the poultry farm.
- To provide a system that can facilitate the update of poultry farm records.
- To develop a system that will aid the presentation of reports pertaining the poultry farm.

1.4 Scope of Study

This research work covers Design and Implementation of a poultry keeping information system. It is restricted to recording information concerning the birds reared and the financial aspect of income and expenses of the poultry farm.

1.5 Significance of the Study

The significance of the study is that it will provide useful information and means to enable the management of the poultry farm automate their record keeping process for better updating and presentation of reports. It will also serve as a useful reference material to other researchers that need related information.

2 Literature review

2.1 Introduction

Record keeping and management at a farm involves keeping an account of the daily operations for reference. Torres defined record keeping as the keeping of detailed records by a farmer of his farms daily operations, incomes and expenses [1]. These records are important because they guide farmer decision making. Poggio classified farm records under four basic types: resource inventories, production records, financial records and supplementary records. Of these, farmers are normally more concerned with production records which keep an account of mortalities, production, drug administration, weight, feed and other day to day activities [1]. All records however are important and require attention especially in the era of commercialization of poultry farms.

2.2 Main Body

Several researchers (Torres [1],Dixon and Minae [2]) have pointed out several reasons for lack of record keeping among farmers in Africa which include:

- The cumbersome nature of record keeping due to high illiteracy levels and low numeracy levels of farmers and farm managers.
- Lack of necessary skills and resources (e.g computer software).
- Lack of a central database or reference point for farm information to provide some form of harmonisation and coordination in data collection methodologies, indicators and variables.

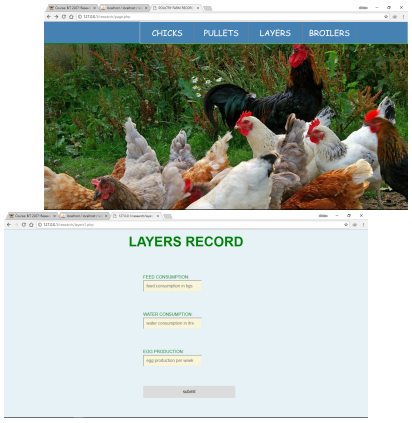
2.3 Conclusion

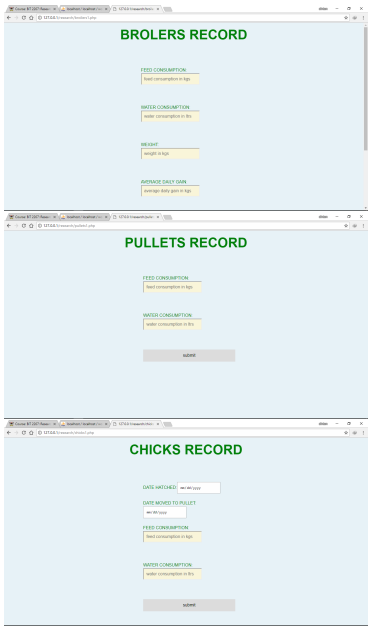
Of the 13 case studies, only three had a computer on site. These three farms were all using Microsoft Excel and Microsoft Word to store farm records and

make performance reports [3]. Of the 10 who had no computers on site, six said they didnt find any value added by the presence of computers at their farms, 4 gave no reason for not having a computer on site. All the ten respondents with no computer agreed that they would purchase a computer only if it added value to their businesses [3]. While all respondents were computer literate, none of the respondents was using any ICT service/application for management and decision making [3]. It was however observed that all the 13 farms had at least more than one mobile phone on site. After a further inquiry on the use of mobile phones at farms, respondents mentioned that they used mobile phones for making and receiving calls,sending messages, searching the internet for information and using social media [3]. While these finding agree with the low technology usage widely reported among farmers in East Africa [4]. The finding that no farmer was currently using any decision support ICT service or application may be an indication that current decision support services have not been widely promoted among farmers in East Africa.

3 Methodology

The survey on implementing an automated records management system on a poultry farm was carried out in Uganda.Twenty poultry farms were surveyed and fifteen poultry houses evaluated for management parameters .The source from which the necessary data were elicited to carryout this research work is basically from primary source. The researcher underwent a thorough interview, the farm managers of the different farms were interviewed and they were kind enough to respond to the interview questions. Finally, information was elicited from the observation techniques during the investigation.We then designed an automated records keeping management system using an online database called WAMPSERVER using php and css basing on the records that were being kept in record books for example chicks records,broilers records,pullets records and layers records.Below are some screenshots of the interfaces.





References

[1] *Farm management in extension in the Pillipines.* A. B.Torres, 2001.

[2] *Poverty alleviation and farming systems in Africa.* J.Dixon,S.Minae, 2001.

[3] T.P.Rebecca, "Decision enhancement for poultry farmers in east africa," Ph.D. dissertation, University of Gronigen, 2010.

[4] *Policies to promote cereal intensification in Ethiopia: The search for appropriate public and private roles.* D.J.Spielman, D.Byerlee,D.Alemu,D.Kelemework., 2010.