

## **LIVESTOCK PRODUCTION RECORD MANAGEMENT SYSTEM**

**MICHAEL E. VERDADERO  
JHON RYL R. POLONIO  
JANRICK L. ANDALLO  
GERVIN G. REALIZO**

**ILOCOS SUR POLYTECHNIC STATE COLLEGE  
COLLEGE OF COMPUTING STUDIES  
STA. MARIA, ILOCOS SUR**

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## **Chapter I**

### **INTRODUCTION**

#### **Project Context**

Today, computers become integral part of people's lives. Almost all organizations are now using the computerized system of processing information because it is faster and more accurate. Business organizations are now conforming to the latest trend of computer technology. As technology evolves, people come to understand computer as an electronic device which can execute sequences of instructions.

Livestock is commonly defined as domesticated animals rose in an agricultural setting to produce labor and commodities such as meat, eggs, milk, fur, leather, and wool. The term is sometimes used to refer solely to those that are bred for consumption, while other times it refers only to farmed ruminants, such as cattle and goats. The breeding, maintenance, and slaughter of livestock, known as animal husbandry, is a component of modern agriculture that has been practiced in many cultures since humanity's transition to farming from hunter-gatherer lifestyles. Animal husbandry practices have varied widely across cultures and time periods. Livestock production continues to play a major economic and cultural role in numerous rural communities.

Livestock farming can be hectic especially if you are dealing with a variety of animals in your farm. Gone are the days when farm managers



used to walk around with a pen and a piece of paper to take data and information concerning the animals being reared. If you intend to run livestock farming as a business, then you have no option but to abandon the traditional method of operating a farm and invest in suitable software. Most livestock farmers have incorporated livestock management software into their farming to keep up with the current trend as well as remain competitive.

With the aid of technology, it helps to perform task in an easy way with less time consumed. Livestock production system is a pattern of production practices to utilize animal resources. Livestock production provides goods and services by using a large variety of animals. Livestock production systems endeavor to increase the productivity of farm animals. Livestock production practice also increases socio-economic benefits for the producers and render environmental justice to the humanity. The livestock is grown in a wide spectrum of agro-ecological and socio-economic conditions utilizing different sets of resources. Livestock production involves many necessary practices such as rearing of young ones, feeding and fattening, controlling diseases, taking care of hygiene of the stock, harvesting and marketing. With inventory management, it can manage stock inventory, medication status, feed records, and replenishment. A computerized system is the best solution and most innovative answer for their needs and it would make it more advantageous.



Our proposed system can record and store livestock, feeding records, and replenishment. Replenishment means, it can add some stocks and also an animal to the inventory management. There's a login form to ensure that the system is secured. The user that can access the system is the one who's handling the farm. The system will have database that includes adding of new stock or animals and modifying and deleting existing stock or animals. The system will compute all the expenses and sales.

### **Purpose and Description**

The purpose of this study has to focus on the importance of modern technology for the livestock management, this software also aimed to lessen their burdens and maximize efficiency in workers at the animal farm area.

The develop system would benefit the following:

**Ranch Managers.** The keeper would be benefited from the system in such a way that the quality and performance of his\her work is improved.

**Researchers.** The study served as guide to researchers to look into the development of the presented research into more useful source of information that caters the needs of the keeper at the animal farm area.

**Future Researchers.** This research will serves as the guide for the future researchers.



## **Objectives of the Study**

Generally, this capstone project aimed to develop a web-based for managing animals' production.

1. To identify the problems encountered in the livestock manual record management;
2. Design a user friendly Livestock Production Record Management System;
3. To test the Livestock Production Record Management System.

## **Scope and Limitations**

The study focused on the development of a Livestock Production Record Management System. This is to provide the needed information to the ranch manager. It is secured, there's a login form. It is expected to generate reports and records within the given time frame through updating, saving and managing of data. The Administrator can also add, update, edit, search, and post the records that are stored in the system.

The system included a false sense of reliability and was depend on human entry.



## Chapter II

### REVIEW OF LITERATURE

This chapter presents the review of related literature and studies which served as the foundation of the study for support and elaboration of the findings.

**Record Management System (RMS)** is the management of records for an organization throughout the records-life cycle. The activities in this management include the systematic and efficient control of the creation, maintenance, and destruction of the records along with the business transactions associated with them. Considered a key component of operational efficiency, record management adds more value to organization's information assets.

The ISO 15489-1: 2001 standard defines records management as "the field of management responsible for the efficient and systematic control of the creation, receipt, maintenance, use and disposition of records, including the processes for capturing and maintaining evidence of and information about business activities and transactions in the form of records". An organization's records preserve aspects of institutional memory. In determining how long to retain records, their capacity for reuse is important. Many are kept as evidence of activities, transactions, and decisions. Others document what happened and why. The purpose of records management is part of an organization's broader function of



Governance, risk management, and compliance and is primarily concerned with managing the evidence of an organization's activities as well as the reduction or mitigation of risk that maybe associated with it.  
*(techopedia.com)*

A record represents proof of existence and that can be used to recreate or prove state of existence, regardless of medium or characteristics. A record is either created or received by an organization in pursuance of or compliance with legal obligations, or in the transaction of business. Records can be tangible objects, such as paper documents, result exam form, application and feedback forms, certificates, and even driver's license. Intangible objects are electronic records, also often referred to as digital records, these records are those generated with and used of information technology devices digital information, such as electronic office documents, data in application databases, and website contents. Classification of record is achieved through the design, maintenance, and application of taxonomies, which allow record managers to perform functions such as the categorization, tagging, segmenting, or grouping of records according to various traits.

Electronic Records Management (ERM) System is a computer program or set of programs designed to track and store records. The software can be used to manage the creation and maintenance of records within classification schemes, apply retention and disposal schedules, and



control access and use. An ERM system should be able to capture records created by an organization's business systems and applications. The system should capture a record, along with any associated metadata, and categorize it within a classification scheme. Electronic records do not have the same implicit metadata as physical records so the extent of metadata that needs to be attributed to them is greater. An electronic record can be made up of many distinct parts or digital objects and the system used to manage them must be able to preserve all of those objects and reconstruct them as an authentic and reliable replica of the original record.  
*(nrscotland.gov.uk)*

**Ranch Manager Open** is the first Livestock Management software to use a voluntary licensing model. Basically, it is crowd funded. To get started, no investment is required.

Ranch Manager is Livestock Software designed for the modern livestock business. Keep detailed livestock records. Manage ID, pedigree and breeding. Record multiple actions including treatments, sales and animal locations. Track animal & herd performance including basic accounting capabilities for managing Expenses, Profit & Loss. Keep a ranch calendar and add unlimited notes to keep you organized.

Record animal-specific records all in one customized livestock program. Cattle, Sheep, Goats, Horses, Donkeys, Deer, Elk, Alpaca, Llama



and Dogs- handle any combination by activating the modules that you need.

With today's technology, whether record keeping on a laptop, desktop, tablet or a mobile phone in the field, Ranch Manager is the solution you need to manage your livestock operation. Family-owned & operated, Ranch Manager Software is available on Windows & Macintosh for the Desktop/Laptop computers and on Apple iPhone and iPad for field use.

In the Office. Spend cold days with a warm cup of coffee in the office and your old friend Ranch Manager. The desktop software is where you will manage your operation, run reports, perform analysis and synchronize your data with your RM Cloud devices.

With the Herd. Working with your herd is where it's at. Take Ranch Manager on your phone and have all your data right where you need it. Record data real-time, as you work. Drop the notebook and go digital.

At the Chute in The Barn. In the Barn or along the Chute; Ranch Manager is right there as you work your animals. Pull an animal's detailed record on a laptop or tablet in seconds, and record any actions you perform. ([ranchmanageropen.com](http://ranchmanageropen.com))

**Livestocked** is a better way to manage your livestock business online. With a business first approach to livestock record keeping and farm



management, Livestocked understands farmers would prefer to be in the paddock and not in front of the computer.

Livestock Management Software category: Animal treatment and health records; Individual animal records; Task management: Easily capture batch numbers, expiry dates, and withholding periods; Cattle management: Animal database, inseminations, milking, health, feed rations, weighing, alerts, heat detection; Herd / Flock Record Keeping; and Detailed weight gain performance analysis.

Livestocked is a better way to manage your livestock business online. With a business first approach to livestock record keeping and farm management, Livestocked understands farmers would prefer to be in the paddock and not in front of the computer. Its intuitive mobile interfaces help users manage their herd, semen & embryo inventory, sales, and financials from the desk or out in the paddock. Enjoy multi-species and multi-breed herd management through mixed enterprise solution. Manage cattle, sheep, goats, pigs, alpacas & llamas through one easy to use app. Simple yet robust animal search features make browsing pedigrees a breeze, weekly EBV (Estimated Breeding Values) calculations allow members to make breeding decisions with the up-to-date data. The Livestocked website, desktop application and the mobile app takes every precaution to protect users' information, and it has security measures in place to protect the loss, misuse, and alteration of the information under its



control. Track inventory costs for every application per head and per hectare. Easily capture batch numbers, expiry dates, and withholding periods. Livestocked provides full task management, including priority and allocation to team members. Livestocked has a very clear layout and is easy to view data of any field without the need for opening multiple windows and requiring extra power. The program also has a range of reports that can be generated and printed for use in the paddock or yards at different management events. Livestocked is also compatible with all the major hardware (readers, indicators, panel readers etc.) manufacturers, so can be easily used with existing gear. (*[predictiveanalyticstoday.com](http://predictiveanalyticstoday.com)*)



## Bibliography

### Book Reference

Sabado, D.C., et.al. (2015). *NSTP Online Record Management Information System of ISPSC*. Ilocos Sur: Bachelor of Science in Information Technology.

### Online References

Record Management System.(2001). Retrieved from <https://www.techopedia.com/definition/30667/record-management-system-rms>.

Electronic Records Mnagement Systems.(2005). Retrieved from <https://www.nrscotland.gov.uk/record-keeping/electronic-records-management/electronic-records-management-systems>.

Livestocked.(2006). Retrieved from <https://www.predictiveanalyticstoday.com/livestocked/>.

WAMMI. (2013). Retrieved from <https://www.wammi.com/whatis.html>.

Livestock Management Sofware. (2018). Retrieved from <https://www.1099-etc.com/blog/business/livestock-management-software>.

Ranch Manager Open.(2008). Retrieved from <https://www.ranchmanageropen.com/phone/index.html>.