DEVELOPING A DECISION SUPPORT SYSTEM FOR FARM MANAGEMENT DATABASE AND AI PLANNING

SRITHARAN VINOTHAN





FACULTY OF AGRICULTURE EASTERN UNIVERSITY

SRI LANKA

2011

PROCESSED Main Library, EUSI

1

ABSTRACT

In farming activity database management is taking an important role for decision making. Proper record keeping helps to analyze the farm situation and plan future activities of farm. Particularly in animal farms, the farm management is generally using artificial insemination (AI) for developing their farm. AI helps to develop good genetically potential animals within the farm, and helps to increase the production capacity of the farm. Especially in cattle, AI is a common and popular one in dairy farms. For AI program proper heat detection of animal and good record keeping of them are very important. The successive rate of AI is depending on the proper heat detection. To find correct time of heat of the animals a good observation and skilled person is needed. Most of the farms are using hand written documents for maintain their AI and farm management records. To overcome the situation a study was contacted to develop a user-friendly Decision Support System, using appropriate computer hardware and software to make the farm AI planning decision support system with readily available information and data for satisfied the above mentioned people AI planers and the farm management.

Here decision making activity on AI becomes most complicated activity to the AI planers and the farm management. Here an additional supported system is required to take good decision making on AI program. It has an ability to provide most related and necessary information for decision making was an advantage to the farm management. This Decision Support System will help to store and provide all farm animal's history sheet data and milk records and special remarks and medicinal treatment details. With the help of its database the breeding and selection of animals also become easier. Different type of searching method links help to the users to find

iv

TABLE OF CONTENTS

	Pages No
ABSTRACT	IV
ACKNOWLEDGEMENT	VI
TABLE OF CONTENTS	VII
LIST OF FIGURES	X
ABBREVIATIONS	XI
CHAPTER 1: INTRODUCTION	1
1.1 Objective of the Study	3
· · · · · · · · · · · · · · · · · · ·	Ż
CHAPTER 2: LITERATURE REVIEW	4
2.1 Decision Support System (DSS)	4
2.2 Functional line of Database Management Software (DBMS)	4
2.3 Feature of a Decision Support System (DSS)	5
2.4 Decision Support Systems in Function	5.

vii

2.5 Necessity of a Decision Support System (DSS)	12
2.6 Development analytic of DSS	12
2.7 Improvements of Artificial Insemination	13

CHAPTER 3: MATERIALS AND METHODOLOGY	15
3.1 Systemic Approach of Developing DSS	15
3.2 Operating System and Platforms of the DSS	16
3.3 Installation Process	18
3.3.1 Initiate the Installation of the system	18
3.3.2 Selection of Installation Folder	19
3.3.3 Conforming Installation	20
3.3.4 Completion of Installation	21
3.3.5 AIP DB 2011 icon at Desktop	22
3.4 Collection of Data	23

viii

CHAPTER 4: RESULTS AND DISCUSSION			24
4.1 Link at desktop			24
			25
4.2 Login Window			26
4.3 Main Window of AIP DB DSS			26
4.4 Database			27
4.5 Feeding of Data to the System			28
4.5.1 Select Category and ID			28
4.5.2 Fixing of Dates			29
4.5.3 Storing Data to Database			30
4.8 Sharing the Hardcopy			31
4.9 Security of System		24	32
X		Ż	
CHAPTER 5: CONCLUSION AND SUGGESTIONS	\$ 7		33
5.1 Conclusion		e	33
5.2 Suggestions for Future Development	4	6458 	34
REFERENCES			35

ANNEXURE

ix