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## UNIT 2 FARM RECORD KEEPING

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## 2.0 OBJECTIVES

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After studying this unit, you will be able to:

- summarize various records to be maintained in a poultry farm, hatchery and feed mill;
- recognize scope for expansion of activities;
- support computerization of the farm records to help evaluate current and future investments;
- compare the actual performance with the standards; and
- identify and rectify the production problems, if any.

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## 2.1 INTRODUCTION

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Record maintenance is a crucial activity in any business. It will serve as important source for monitoring and evaluation. The records maintained are primarily a documentation of accountability and secondarily a *data system* for management. They should be reliable and relevant and should be made available as and when required. Records should be simple, easy to understand, without repetition; but must provide all the information needed. The records should be able to clearly state, where and how the enterprise stands. The history of the record will provide the entrepreneur, a clear picture of all mistakes made in the past and to be avoided in future. The records are necessary to study the production performance, identify the problems, if any and check whether it meets the prescribed standards. Records should provide information for future planning, changes and expansions, if any.

## 2.2 IMPORTANCE OF RECORD KEEPING

Record keeping is very essential in all enterprises or establishments due to the following reasons:

- To know the actual performance of the unit and compare it with the standards.
- To know how the money is spent in the business and how much income it is generating annually.
- Records are needed for banking and auditing purposes.
- To keep proper account of various inventory, stock and resources.
- To monitor the staff and extract good work from them.
- Records are needed for various purposes like tax calculation.
- To locate frauds, wastages and other defects, to correct them and make further improvements in the performance of the organization.

At the same time, the records and accounts must be simple, deliver its purpose without any complications, duplication and confusion. It must lead the organization in the right track.

### Check Your Progress 1

**Note:** a) Use the space given below for your answers.

b) Check your answers with those given at the end of the unit.

1) What is the importance of record keeping in poultry farming?

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## 2.3 CLASSIFICATION OF RECORDS

Many types of records are maintained in a poultry farm as many activities right from hatchery management to marketing of products takes place. Hence, for each of the major activities, records are maintained in order to monitor the progress of the farm. Some of the basic records maintained in a poultry farm are discussed in this section.

The nature of the records varies, based on the type and volume of the enterprise. In general, farm records can be classified under three broad categories:

- Basic records
- Production or Technical records
- Financial records or accounts

### 2.3.1 Basic Records

Basic records are common for all enterprises, including offices. They are generally administrative type of records; such as attendance register, pay or salary register, leave register, movement register and so on. Irrespective of the type and size of the enterprises, the basic records to be maintained are as follows:

**(a) Attendance and daily wages register**

This deals with the number of persons employed daily and wages dispersed to them; including the stamped receipts (aquittance). The attendance register is **mandatory** in all farms and offices employing more than six persons. This number may vary from state to state.

In large enterprises, **electronic scratch card check-in and check-out equipment** is maintained at the entrance of the office. Each employee has to insert his or her Identity card in this machine at the time of entering and leaving the office. The machine will note the exact arrival and departure time of the employees, so that the employees will be **punctual** in their office hours.

**(b) Leave and wages register**

This register maintains the leave as well as the weekly or monthly wages of the employees. This also includes the stamped receipts (aquittance). This register is also mandatory under labour law. In big establishments, separate leave, wages and aquittance registers are maintained. Many big farms and integrators have computerized these registers; but maintain a stamped aquittance register or file.

**(c) Personal files**

This comprises of personal records of all employees; such as their application, qualification, date of joining in the service, experience, working ability, promotion, salary details, increments, loans taken and other details of the individual. These records are also computerized for easy scrutiny and accessibility.

**(d) Movement register**

This deals with the movements and tours made by the employees. This register will have columns like:

Name and designation / I.D. of the employee	Time of leaving the office	Place	Purpose	Time of return	Remarks, if any

Even persons going locally to bank work, farm, hatchery visit etc. have to be noted.

Other administrative records include:

- Employees provident fund account register
- Loan register
- Travelling and other allowances register
- Establishment register
- Property and assets register
- MOU (memorandum of understanding) and other agreements file
- Agreements with the contract farmers
- Licenses and permits file
- Vehicles register
- Electricity bills register
- Bills and vouchers and so on, depending on the size of the farm or integrator

### 2.3.2 Technical Records

These consists of all registers, files and computerized records pertaining to the technical aspects of farm or hatchery or feed mill or poultry integrator. These registers will give the functioning status of the farm or hatchery, performance efficiency, health status of the birds, technical standards achieved, targets and goals. It will also help in SWOT analysis, for further improvement of the farm. The number and types of registers varies with the volume of operation and nature of the farm. However, most farmers maintain registers to suit their mode, volume and nature of operation. Therefore, it is very difficult to give a common proforma for various registers. In any case, some of the common technical registers are discussed below:

#### (a) Buildings register

This deals with various farm buildings and other civil works like bore well, fencing, roads etc. Both buildings purchased and constructed will be maintained along with their year and cost of construction, annual depreciation of the buildings. In this register, one has to maintain the petty repairs and expenditure incurred for their maintenance. Moreover, the annual depreciation on buildings should also be worked out every year. After deducting the annual depreciation, the actual worth of the buildings should be brought forward for various accounting purposes.

#### (b) Equipment register

It is also called as non-expendable article register. This includes various farm equipment machineries like feed mill, vehicles, cages, incubators, feeders, drinkers, brooders etc. In a separate file, the related bills, guarantee card must be filled. The repairs carried out along with the details of repairs and cost also must be indicated. The annual wear and tare (depreciation) should be calculated for each of the equipments and the actual post-depreciation value for that equipment must be brought forward for the next year. For perishable items like earthen-ware feeders, the depreciation at the rate of 50%. For costly equipment like grinders, incubators, the annual depreciation may be of a tune of 10%. A full page must be allotted for each of the equipments with the following columns:

Date	Source	Number	Cost	Depreciation (%)	Post-depreciation cost
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#### (c) Feed ingredients register

Feed is the major item of expenditure in poultry production. Hence, much care should be exercised in maintaining this register. Few pages must be allotted for each feed ingredient. For each of these items, the following details have to be maintained:

Opening Balance	Receipts	Issues*	Storage loss	Cost	Closing balance	Remarks**
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\* Indicate the details of feed register to which it is transferred.

\*\* Source of purchase, invoice number, date and cost per unit, lab analysis report, if any must be indicated.

**Note:** Since the feed ingredient prices vary frequently, the actual ingredient cost for each batch of feed mixed must be taken into account, for accurate calculation of the feed cost.

**(d) Feed register**

Depending on the ration formula, various feeds are manufactured. A separate register for each of the compounded feed (Broiler starter, Broiler finisher, Layer etc.) indicating the details of manufacture and issue must be maintained with the following columns:

Date	Quantity mixed	Ingredients*	Issue	Remarks**
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\* Indicate details of feed ingredients' register from where they are transferred.

\*\* Indicate details of Poultry sheds to which feed is issued.

Poultry farmers operating on a large scale preferably have computerized list of raw materials suppliers. The computer itself generates call for quotations and places indent with the suppliers, based on their rates quoted.

**(e) Feed additives and medicines register**

This register keeps track of the various feed additives, medicines, vaccines, disinfectants, chemicals purchased and utilized. The columns are similar to the feed ingredients register and in the remarks column, the invoice number, date, cost and source of each purchase have to be indicated. In case of medicines and vaccines, batch number and date of expiry have to be recorded.

**(f) Petty items or miscellaneous purchase or expenditure register**

In this register, all miscellaneous purchases like brooms, lime, stationary, bulbs, nails etc. and other day-to-day expenditure has to be recorded and a monthly and annual consolidated report has to be prepared to calculate miscellaneous expenditure. Separate pages can be allotted to each of such items to help consolidate accounts. The columns in this register can be as follows:

Date	No. purchased	Cost	Supplier	Remarks
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In addition to the above mentioned common registers, the following specific registers have to be maintained, depending on the nature of the farm and type of enterprise.

**(g) Layer farm register**

For each batch, the production performance register has to be maintained from day one to disposal; with the following columns.

Date	Age in days	Opening balance of birds	Mortality	Feed issued	Feed/ bird/ day	Eggs produced	% Hen-day egg production	Feed/ egg	Remarks*
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\* Record date of vaccinations, debeaking, medication, post-mortem report, if any, sale of culled birds, rate at which the eggs and birds are sold and any other relevant information.

**Note:**

- 1) A separate book has to be maintained for each batch from day one to disposal, so that batch-wise economics can be calculated.
- 2) Usually the hatcheries, who supply the chicks will provide one printed layer performance register to the farmer. In this book, they will also provide the standard performance of that particular hybrid, for comparison. This will assist the farmer in knowing where he stands and how to make further improvement.

**(h) Egg out turn register**

This is a consolidated record of egg turnover by all batches maintained in the farm at a time. This will take into account the eggs produced by all the batches of layers in the farm. This will also deal with eggs purchased from other farms for trading; in case of farmers-cum-dealers. This register consists of the following columns:

Date	Opening balance of eggs	Eggs produced	Eggs purchased	Eggs sold	Broken and discarded	Closing balance of eggs	Remarks
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**Note:**

- 1) Number and sale price of the pullet eggs and broken saleable eggs may also be maintained.
- 2) The day-to-day sale price of eggs must be recorded daily.
- 3) The monthly and annual consolidated report, indicating the volume and value of the total eggs turnover may be furnished.

**(i) Broiler farm records**

For broiler farms, batch-wise performance sheet has to be maintained with the following columns: (Usually the hatcheries will supply this sheet along with their chicks)

Batch number	Source of chicks	Number and Strain of chicks	Free or Extra chicks	Date of hatch	Cost per chick
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The day-to-day data to be recorded are:

Date	Age in days	Opening balance	Mortality	Total feed issued	Remarks*
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\* Record medication and vaccination details, cause of death, weekly random sample body weight may be indicated.

**(j) Breeder farm records**

This record will be similar to that of the layer farm. However, some more records like incubator log book, hatching eggs and chick production records have to be maintained. Batch-wise breeder performance record, similar to layer performance record has to be maintained; with additional columns, namely the number of hatching eggs produced daily and sent to the hatchery or sold, discarded or unfit for hatching and sold for table purpose have to be included in the batch-wise performance and egg out turn register.

**(k) Hatching eggs out turn register**

The hatchery should maintain a register similar to that of egg out turn register but with some modified columns as follows:

Date	Opening balance	Receipts	Hatchable	Sold for hatching	Own setting	Sold for table	Discards and sales
1	2	3	4	5	6	7	8

Chicks produced	Chicks sold	Chicks discarded	Free chicks	% fertility	% hatchability	Remarks
9	10	11	12	13	14	15

### (l) Batch-wise hatchery sheet

This may be maintained to provide the following information:

Serial setting number	Number of eggs set	Type of eggs and strain	Source of eggs	Number of eggs discarded at transfer	Number of eggs transferred to hatcher	Number of good chicks hatched
1	2	3	4	5	6	7

Number of weak chicks	Number of pullet chicks*	Number of male chicks*	Mode of disposal	% Fertility	% Total hatchability
8	9	10	11	12	13

\* Only in case of laying-type chicks

### (m) Chick out turn and disposal register

This register consists of strain-wise chick out turn and disposal particulars, consisting of the following columns:

Date	Opening balance	Hatched	Sold	For own purpose	Discarded	Free margin	Closing balance	Price per chick	Remarks*
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### (n) Feed mill record

The feed mill registers will be similar to the general registers discussed above but with more details about individual feed ingredients. Instead of maintaining few pages for each ingredient and feed in the same register, a separate register has to be maintained for each ingredient and feed. An extra column showing the feed ingredient shortage due to storage, grinding and mixing loss has to be indicated at the expiry of each batch or lot received or mixed.

Moreover, different feed formulae, servicing of equipment, replacement of sieves, pellet dye, hammers (beaters) also have to be entered, either in the same register or in different registers. The remarks column must indicate the source of purchase, bill number, unit price and mode of payment, in case of feeding ingredient. In case of different feeds prepared, the register should indicate to whom sold, quality, rate per unit, invoice number and mode of receipt.

## 2.3.3 Financial Records

These records will be common to any unit, dealing with finance and accounts. It includes :

- Cash out turn or flow register,
- Bank accounts and transactions register,
- Cheques issued register,
- Loans repayment pass book,
- Integrator-contract farmers' financial transaction register,

- Various Accounts registers,
- Audit register,
- Income tax and other taxes transaction register,
- Movable and immovable properties registers,
- Purchase register,
- Payments register, and
- Any other registers recommended by the banks, income tax or commercial tax departments and auditors.

All these registers will have standard format or proforma or columns, as per the recommendations of the concerned departments. Many integrators and big farms have computerized their financial records and accounts, to save time and labour.

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## 2.4 RECORD MAINTENANCE

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The use of computers in poultry-related activities has almost become indispensable, especially for larger operators. Computers are used in pure line and breeder farms to keep individual record of breeding stock and selection of the next generation stock. Computers have simplified the job by processing large data and giving quick solutions.

Computers are used in least-cost feed formulations by all feed manufacturers and integrators, by linear programming. By using computers, it is now possible to formulate least-cost feed formulations, using unconventional feedstuffs, without affecting the performance of the birds.

Many big farms, feed companies and hatcheries are maintaining personal computers to maintain all the farm records. It will not only save time and labour, but also can generate different combinations and permutations of records in any split up or consolidated forms, for better interpretation of the data for further planning. Computers can be efficiently utilized in automation of the farm, control of house environment, feed production, hatchery operation, mortality monitoring, shed, cage and equipment design as well as other day-to-day operations.

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### Check Your Progress 2

**Note:** a) Use the space given below for your answers.

b) Check your answers with those given at the end of the unit.

- 1) Name five important technical records to be maintained in a layer farm.

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- 2) What are the financial records to be maintained in a poultry farm.

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- 3) How computers are useful in a poultry farm?

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**Activity 1**

Visit a poultry farm. Collect information on the different types of basic, technical and financial records maintained at the farm. Note down the different columns in each of the records and compare it with the columns discussed above.

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## 2.5 LET US SUM UP

Record keeping is an essential step in any business, to know where we stand in the business and how to improve it further. These records can be broadly classified into three categories namely, basic or administrative records, technical records and financial or accounts records. Records help us know the stock position, production levels, financial status of the farm such as profits and losses, production cost and other valuable information. By periodical analysis of the farm records, such as SWOT analysis, one can find out the problems, both existing and emerging, and try to rectify them. Now computers are used for record keeping; which are not only simple, but also suitable for different kinds of analysis and interpretation, to draw valid conclusions.

## 2.6 GLOSSARY

<b>Broiler Performance Sheet</b>	: This shows batch-wise performance of the birds, such as number of chicks received, source of chicks, batch number, body weight, feed consumed, number and kg of broilers sold, mortality rate and finally the overall performance of the birds, including the cost of production, sale price and net profits.
<b>Cash Flow</b>	: Register showing the way in which the money is transacted and flowed in and out of the farm accounts.
<b>Depreciation</b>	: A decrease or loss in value, because of age, wear, or market conditions.
<b>Hatchery Sheet</b>	: A sheet or record showing batch-wise hatching eggs setting, chicks hatched, sold, discarded, destroyed and percentages of each.
<b>Indent</b>	: To order (goods) using a special order form.
<b>Perishable</b>	: Something, especially foodstuff, subject to decay or spoilage rapidly, if not refrigerated.
<b>Quotation</b>	: A statement of the current market price of a security or commodity.

: SWOT Analysis is a strategic planning method used to evaluate the Strengths, Weaknesses, Opportunities and Threats involved in a project in a business venture. It involves specifying the objective of the business venture or project and identifying the internal and external factors that are favourable and unfavourable to achieving that objective.

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## 2.7 SUGGESTED FURTHER READING

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Sreenivasiah, P.V. 2006. *Scientific Poultry Production*, 3<sup>rd</sup> Edition. International Book Distributing Company, Lucknow, India.

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## 2.8 REFERENCES

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Narahari, D. and Rajini, R.A. 2004. *Poultry Projects and Economics*. Pixie Publications, Karnal, India.

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## 2.9 ANSWERS TO CHECK YOUR PROGRESS

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### Check Your Progress 1

- 1) Record keeping is very essential in all enterprises or establishments due to the following reasons:
  - To know the actual performance of the unit and compare it with the standards.
  - To know how the money is spent in the business and how much income it is generating annually.
  - Records are needed for banking and auditing purposes.
  - To keep proper account of various inventory, stock and resources.
  - To monitor the staff and extract good work from them.

### Check Your Progress 2

- 1) The five important technical records to be maintained in a layer farm are:
  - Dead stock register,
  - Batch wise layer stock register,
  - Egg out turn register,
  - Consolidated layer performance register, and
  - Feed register.
- 2) These records will be common to any unit, dealing with finance and accounts. It includes :
  - Cash out turn or flow register,
  - Bank accounts and transactions register,
  - Cheques issued register,

- Loans repayment pass book,
  - Integrator-contract farmers' financial transaction register,
  - Various Accounts registers,
  - Audit register,
  - Income tax and other taxes transaction register,
  - Movable and immovable properties registers,
  - Purchase register,
  - Payments register, and
  - Any other registers recommended by the banks, income tax or commercial tax departments and auditors.
- 3) Computers are used in pure line and breeder farms to keep individual record of breeding stock and selection of the next generation stock. Computers have simplified the job by processing large data and giving quick solutions. Computers are used in least-cost feed formulations by all feed manufacturers and integrators, by linear programming. By using computers, it is now possible to formulate least-cost feed formulations, using unconventional feedstuffs, without affecting the performance of the birds. Many big farms, feed companies and hatcheries are maintaining personal computers to maintain all the farm records. It will not only save time and labour, but also can generate different combinations and permutations of records in any split up or consolidated forms, for better interpretation of the data for further planning. Computers can be efficiently utilized in automation of the farm, control of house environment, feed production, hatchery operation, mortality monitoring, shed, cage and equipment design as well as other day-to-day operations.