

CHAPTER THIRTEEN

Records and Record Keeping

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Objectives

1. To highlight the importance of record keeping in various aspects of sheep and goat production.
2. To describe the different kinds of records that are required in relation to sheep and goat production.

Expected Outputs

1. Understanding of the importance of record keeping.
2. Understanding of the major components of a record.
3. Ability to design a format for keeping records for sheep and goat production.

13.1. Objectives of Record Keeping

Record keeping is an essential part of good livestock and farm business management. Recording can be done most easily if animals have some form of identification. Thus, animal recording and identification are inseparable. There are two main objectives of animal identification and recording:

- To identify animals belonging to a particular owner; proof of ownership.
- To use as a management tool to:
 - ◆ undertake performance evaluation,
 - ◆ perform genetic selection,
 - ◆ keep proper health records,
 - ◆ accurately measure production and reproduction, and
 - ◆ perform other important management functions required to run an effective and efficient farm enterprise.

Establishment of a national livestock data-recording system is important for a uniform development of recording and analysis procedures. The national recording system should:

- be uniformly used throughout the country.
- be simple to implement and use.
- allow identification of the best and poorest management procedures.
- provide information necessary to make management decisions.
- provide data for research, policy development and extension.
- help in implementing genetic improvement programs.

Such national schemes can become successful if there is clear benefit to participating farmers. However, the need for record keeping could arise from its importance on a scale broader than a single farm. Effective, reliable and traceable identification and recording systems for live animals and animal products could enable national or international bodies to rapidly respond to disease outbreaks and biosafety concerns. This will help to identify the source or sources of the problem, understand its implications and take appropriate measures.

13.2. Types of Records

Sheep and goat production records should give details of individual ewe or doe performance over successive years on fertility, prolificacy, rearing or mothering ability and milk production directly or indirectly estimated through lamb/kid growth rate to a given age. If records are used for selection purposes, comparisons should be made between animals in the same flock to avoid confusion arising from differences in farm conditions or other environmental effects. Another option is to mathematically correct for known factors causing differences. As the number of animal records increases, their reliability to be used as a guide for breeding value of individual animals is increased.

On-farm records are essential in evaluating and improving the performance of sheep and goats within a farming system. Farmers should have a record book in which all records are kept. This should be stored in a place where it will not become soiled or wet, making the records useless. The format should be simple and readily understood by the farmer. KDA agents should make a sample record book that can be shown to farmers. This record book should be written in a language understood by farmers in the area and must contain any type of regional-specific records or information that needs to be kept.

Below is a list of records that may need to be kept under Ethiopian conditions. The value and relevance of the different types of records will vary with differing sheep and goat production systems.

- Lambing records, which include identity, dam ID, weight, date of birth, type of birth and sex.
- Growth or weight records kept periodically by recording the body weight of animals.

- Health records including morbidity, mortality, signs and symptoms, diagnosis, treatments and vaccinations, etc.
- Feed consumption: This is difficult to estimate on farms where animals graze, but for capital-intensive farm businesses, such as finishing or fattening operations, the amount of concentrate fed should be recorded to calculate profitability.
- Milk production records: recording once weekly may suffice as this is highly correlated with total milk production. Therefore, in dual-purpose sheep and goats, or even in meat types, a random sample of lactating females may be selected for recording their once-a-week milk production.
- Mating records: Sire, dam and progeny identification is important in breeding, sale, and culling decisions.
- Testes size: Recording testes size at one year of age can assist in sire selection. Testes size in males is related to ovarian activity (multiple ovulations) in females.
- Carcass yield or dressing percentage is a factor that has tremendous economic value, particularly in a community-based breeding program involving meat breeds. This information could be obtained from slaughterhouses/abattoirs.
- Hides and skins: For a crossbreeding program there may be a need to record skin quality aspects such as area of hide, skin thickness, elasticity, pigmentation and density of hair.

Final Message

1. Records are essential in sheep and goat production to optimize production and maximize profit.
2. In addition to its importance at the farm level, following a standard format at a national level could contribute to comparisons for various purposes. Entries for specific requirements of a farm can be added on the entries of the standard format.
3. Records should be simple to keep and easy to understand in order to be useful in achieving production and economic objectives.
4. Some measurements which need recording a few times in an animal's life (e.g., testes size) can have far reaching impacts on productivity.
5. In crossbreeding programs, production records can assist in determining if the activity has an overall benefit.
6. Records are important for cost-benefit analysis of sheep and goat production enterprises.

13.2.1. Examples of records

As noted above, there are different types of records that may be kept in a sheep and goat record book. Moreover, the formats of records should be simple and easy to understand. Examples of different types of records are presented in Tables 13.1 to 13.9.

Table 13.1. An example of breeding records.

Dam ID	Dam breed	Dam birth date: dd/mm/yy	Sire ID	Sire breed	Mating date: dd/mm/yy	Lambing/kidding date: dd/mm/yy	Remarks

Table 13.2. An example lambing/kidding record.

Individual dam and lamb/kid performance record															
Dam ID:				Dam birth date:				Dam weaning weight (kg):							
Sire ID:			Sire breed:			Dam ID:			Dam breed:						
Dam source:				Reason for culling:				Culling date:							
Comments:															
Pre-weaning performance							Weaning					Ewe/doe status			Remarks
Lamb/kid ID	Birth date	Sex	Birth type (S/T/M)	Sire ID	Sire breed	Birth wt. (kg)	Weaning date	Weaning wt. (kg)	Type of rearing	Wt. at marketing	Price (Birr)	Condition score	Pregnancy check	Preg. or Open	Remarks

Table 13.3. An example lamb or kid performance record.

Pre-weaning								At weaning							Remarks	
Lamb/kid ID	Birth date	Sex	Birth type	Dam ID	Dam breed	Sire ID	Sire breed	Birth wt. (kg)	Weaning date	Weaning wt. (kg)	Type of rearing	Weaning group	Wt. at marketing	Body condition score (1–5)		Lamb/kid price (Birr)

Table 13.4. An example post-weaning performance record of lambs/kids.

Lamb/kid ID	Birth date	Sex	Birth type	Birth wt. (kg)	Weaning date	Weaning wt. (kg)	Type of rearing	Weight No. _____		Weight No. _____		Weight No. _____		Remarks
								Date	Wt. (kg)	Date	Wt. (kg)	Date	Wt. (kg)	

Table 31.7. An example animal health record.

Owner's name: _____
 Peasant Association: _____
 Woreda: _____

No.	Date of observation	Animal species	Number of animals of the same species in the flock	Number of sick animals	Number of animals that died	Major signs observed	Suspected disease	Measures taken	Remarks

Table 13.8. An example individual ewe/doe record.

Owner's name: _____
 Region: _____
 Woreda _____
 Kebele _____

ID No.	Age	Date lambed/kidded	Weight of lamb/kid	Type of birth	Parity	Date brought into the farm	Date removed/culled	Reason for removal

Table 13.9. An example feed consumption / cost record.

Owner's name: _____
 Region: _____
 Woreda _____
 Kebele _____

No.	Date	Type of feed	Consumption (kg)	Cost/kg	Total cost	Remarks

Table 13.10. An example income/expense record of a sheep/goat farm.

No.	Income		Expenses		Difference	Remarks
	Description of income	Amount	Description of expenses	Amount		

Exercises

1.	What is the prerequisite for record keeping in animal production?
2.	Name at least four types of records you keep in sheep and goat production.
	a.
	b.
	c.
	d.
	e.
	f.
3	Name at least 5 benefits of having a good sheep production record-keeping system:
	a.
	b.
	c.
	d.
	e.
	f.

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