



WOOL
HARVESTING
NOTE

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SHEEP YARDS: INTRODUCTION

Several physical facilities are needed for effective sheep handling, and the most significant is an efficient set of sheep yards. The yards are the heart of a sheep handling system, and this underlines the need for thought and care in their design and construction.

PURPOSE OF YARDS

Yards are required to confine sheep and control their movement.

This basic purpose is accomplished by constructing the yards in such a way that sheep can be held, segregated, transferred and arranged.

DEFINITIONS

A number of words and terms have particular meanings in the terminology associated with managing sheep, and the following list is an attempt to define some of these particular meanings.

Sheep Handling: This is the general name used to cover the many activities which must be carried out on the farm to meet the physical and commercial needs of sheep.

Activity: An activity is an operation or task which is necessary to satisfy one or more of the basic needs of sheep.

In a comprehensive analysis of sheep handling, 21 activities have been identified. It is unlikely that all of them would be carried out on any one property, but they arise from the varying climatic characteristics, production patterns and management strategies which exist throughout Australia. The 21 activities can be arranged in four groups.

- A. Supervision
 - 1. Inspection
 - 2. Hand feeding
 - 3. Weighing
 - 4. Drafting
 - 5. Branding
 - 6. Classing
- B. Replacement
 - 7. Buying
 - 8. Mating
 - 9. Lambing
 - 10. Lamb marking - tail docking
ear marking or tagging
castration
injection
mulesing
drenching
udder scoring
 - 11. Weaning

- | | |
|---------------|---|
| C. Protection | 12. Mulesing |
| | 13. Crutching - wiggling
ringing
crutching |
| | 14. Dipping |
| | 15. Jetting |
| | 16. Drenching |
| | 17. Injecting |
| | 18. Foot care - toe clipping
footrot control |
| | 19. General disease control - balanitis
horn clipping
other |
| D. Harvesting | 20. Shearing |
| | 21. Selling |

Treatment: Treatment is the performing of an activity. When the activity has been carried out, the sheep are said to have been treated. One activity may require several treatments, as with drenching.

The following terms have particular reference to sheep yards.

Hold: To hold sheep is to retain them as a group in a confined area, as is done in pens.

Segregate: To segregate sheep is to divide them into groups according to a predetermined plan, and hold them in separate areas as in drafting.

Transfer: To transfer a group of sheep is to move them from one area to another without loss of identity, as is done in moving from one pen to another.

Arrange: To arrange a group of sheep is to put them into some desired order, as in a working race.

It would now be possible to give a definition of sheep yards.

Sheep yards: Sheep yards are a basic handling facility consisting of fences, gates and races appropriately sited, and erected in such a manner that sheep can be held, segregated, transferred and arranged in order that one or more of the sheep handling activities can be carried out.

PERFORMANCE OF YARDS

The definition of sheep yards indicates what sheep yards are, and the purpose they serve. However, it does not cover the question of how effectively they confine sheep and control their movement. Thus, not only is a definition needed, but some measure of the degree to which the operation of the yards meets expectations of effectiveness is required.

What are the expectations? In most cases they focus on two factors -

- (a) the rate at which work can be done or, more precisely, the number of sheep treated per man hour for a specified activity;
 - the effort needed to do the work or, more accurately, the physical demands placed on the operator when performing the activity, and the degree of discomfort experienced because of the environment in which he works.

Expectations for the performance of yards would be expected to follow the pattern:

- high work rate
- low physical effort
- pleasant environment.

Work rate can be objectively established by productivity measurement. Productivity compares output with input, and in the case of sheep yards, is conveniently measured in terms such as number of sheep treated per man hour. Of course the conditions relevant to the productivity measurement must be known if the result is to be meaningful. Such factors as activity performed, type of sheep, skill of the operator, effectiveness of dogs and layout of the yards, all influence the final outcome and should be recorded. Comparison of yard layouts on the basis of productivity can only be made when other factors are identical. In practical terms, it is usually necessary to settle for conditions which are similar to the point that the results can be taken as an acceptable indicator of performances.

Physical effort by an operator can be objectively assessed, but the procedures are complex and not warranted in this situation. The degree of physical exertion is therefore a subjective judgement on the part of those working the yards, but should nevertheless be taken into account when designing new or modified yards.

The suitability of the environment is also a matter of subjective assessment, but avoidance of extremes of temperature, providing shelter from direct sun and wind, elimination of dust and mud, having adequate lighting and a planned workspace, contribute to pleasantness of the work conditions.

Reduction of effort and improvement of the environment are inter-related with the welfare of the sheep. Such conditions will normally result in more careful handling, and improved quality of work. Furthermore, effort reduction and improvement in the work environment can be expected to contribute to an increase in productivity.

Thus, the performance of yards can be assessed in terms of the effort needed by those who work in them, the type of environment in which they work, and the productivity provided the conditions under which the productivity is measured are specified. These performance factors allow comparisons to be made between various types of sheep yards, and this is an important point when assisting a woolgrower to select a system which best meets his needs.

There is an urgent need for reliable performance data on various types of sheep yards. Such data would remove some of the subjective element which currently exists in making recommendations about the design and construction of yards.

THE YARD SYSTEM

The preceding discussion highlights the fact that the sheep yards, as such, are only one factor in getting work done effectively. Operator skill, suitability of dogs and type of sheep are examples of other factors which can be important.

Considering sheep handling work requiring the use of yards as a system enables all the related factors to be included in the analysis. Such a system can be represented as in Diagram 1.

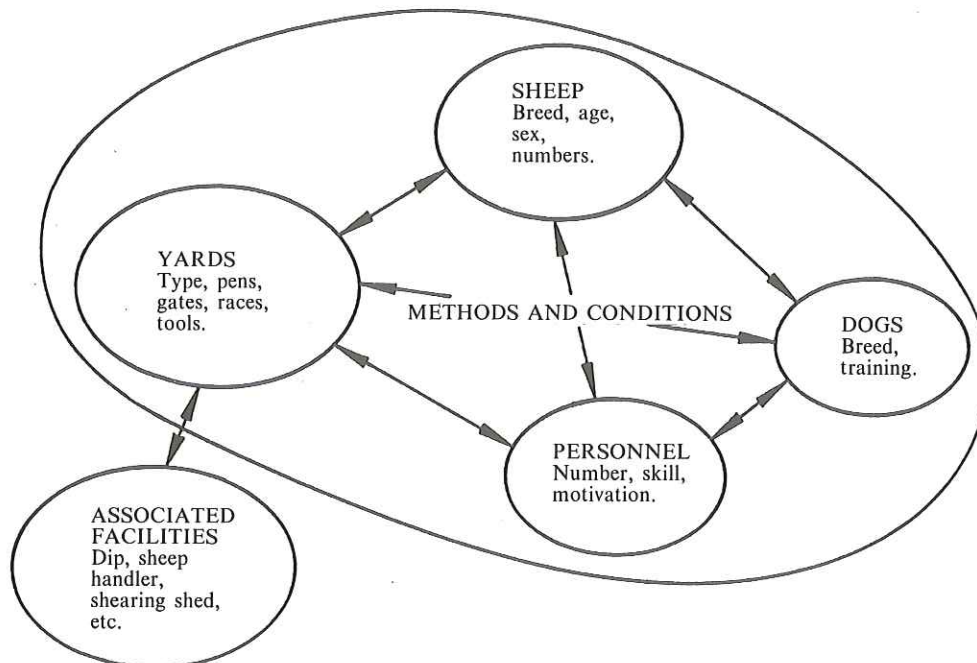


Diagram 1. The Sheep Yard System

A more detailed analysis is possible when the basic elements of the system are considered.

The seven basic elements are:

1. Function - what the system does.
2. Inputs - what goes into the system.
3. Outputs - what comes out of the system.
4. Environment - conditions under which the system works.
5. Sequence of events - how the system works.
6. Physical items - what's needed to make the system work.
7. Personnel - who's needed to make the system work.

To maximise effectiveness of work carried out using sheep yards, each element should be examined. Such an examination can be undertaken by posing questions about each element. An example is given below.

ELEMENT FUNCTION	POINTS WORTH CONSIDERING
INPUTS	<p>Does this activity need to be done? Do we understand why this activity is being carried out? Can others be done at the same time? Can this work be eliminated by better management? What is the acceptable standard or quality of work?</p>
OUTPUTS	<p>Do we have the right sheep in the right place and conditions? Can others be done at the same time? Are there adequate stocks of inputs such as drenches or vaccines?</p>
ENVIRONMENT	<p>Are any records or observations to be made or recorded? Can any other essential work be done before releasing the sheep?</p>
SEQUENCE OF EVENTS	<p>Do the conditions promote good work? What about dust, flies, heat, etc.? Is lighting adequate? Are shadows a nuisance? Is there adequate safeguard against infection? Would the work be better done under cover? Would portable yards taken to the sheep be better?</p>
PHYSICAL ITEMS	<p>Do we know how to do the work? Are there hold-ups? If so, why? Can the sequence be refined and the number of events reduced? If several people are involved, is the work distributed evenly between them?</p>
PERSONNEL	<p>Is everything working properly? Are all the tools or instruments on hand? Are tools and sheep controls laid out to encourage a smooth work pattern? Should any tools be replaced by more effective equipment? Is the dog well trained? Are the yards laid out and constructed in a manner which assists efficient holding, segregating, transferring and arranging?</p>
	<p>Does the operator know what to do? Is he well motivated? Does he have an appreciation of sheep needs and behaviour? Is he able to control the dog effectively?</p>

An analysis along the lines suggested above ensures that all of the factors influencing the overall performance of the system are taken into account, and that attention is not confined to the one physical item of the yards.

STATUS OF SHEEP YARDS

The status of sheep yards enables them to be ranked into four categories on the basis of their function.

- Main yards - these are a permanent set of well constructed yards in which a wide range of activities can be carried out, generally located close to other sheep handling facilities.
- Secondary yards - these are additional permanent yards, generally remote from other farm facilities, in which a range of activities can be performed.

- Temporary yards - these are of lighter construction, used for a short period in any one place, in which only a restricted number of activities can be carried out.
- Portable yards - these are of substantial construction, but able to be towed or otherwise transported, in which a range of activities can be undertaken.

The size and geographic location of a property, together with the management strategy of the owner, determines the number and status of sheep yards found on the property.

TYPES OF YARDS

The type of yard refers to the physical layout, and the name for this is commonly determined by the predominant geometric shape of the completed structure.

The principal types are:

- rectangular yards
- circular yards
- “dee” yards
- bugle yards.

The characteristics of these types are described in subsequent Wool Harvesting Notes.