Sheep Housing and Handling

Farm Resources, Facilities and Equipment ................................................................. 17
  Labour ...................................................................................................................... 17
  Land ....................................................................................................................... 17
  Machinery ............................................................................................................. 17
  Housing .................................................................................................................. 18
  Lambing Facilities ................................................................................................ 18
  Ventilation ............................................................................................................. 18
  Flooring .................................................................................................................. 19
  Penning ................................................................................................................... 19
  Feeding ................................................................................................................... 19
  Feed Storage .......................................................................................................... 19
  Watering .................................................................................................................. 20
  Manure Storage ..................................................................................................... 20
  Canada Plan Service ............................................................................................... 20
  Sample Plan from Canada Plan Service ................................................................. 21
  Building or renovating ......................................................................................... 23
  Farmstead Planning ............................................................................................... 23

Planning Your Sheep Handling Facility ........................................................................ 25
  Introduction ......................................................................................................... 25
  Planning ............................................................................................................... 25
  Facilities Design ................................................................................................... 26

Use Sheep Behaviour to Your Advantage .................................................................... 31

Herding Dogs ............................................................................................................. 32
Labour

Labour is an essential and important input in a sheep enterprise. If you are too busy to implement proper flock health and to monitor your sheep closely, the productivity and profitability of your flock will suffer. The amount of labour required will depend on your production system, the size of the flock, amount of cropping, degree of mechanization, facility design, and handling system. When evaluating labour requirements consider the distribution of activities on your farm throughout the year. For example, producers with accelerated lambing programs will generally have a higher, but steadier level of work through the year, while operations that lamb once per year will have increased labour during lambing. Producers who produce their own feed will have extra requirements during haying and cropping seasons.

The degree of mechanization generally needs to increase if labour requirements are to remain the same as the size of the flock increases. Such things as feeding with large round bales, using self-dispensing grain feeders, and using tractors to clean pens will greatly reduce time requirements, but must be weighed against extra overhead costs. Whatever your feeding and management systems, however, always consider ways of setting up your facilities to make your work easier. Never create extra work by having things in inaccessible locations, or by trying to work through the stock to reach feeders or other pens. The merits of a good handling system cannot be stressed enough for decreasing labour requirements and encouraging proper flock care.

Land

The amount of land you will need depends on whether you plan to produce winter feed for your flock and the level of confinement (i.e. grazing requirements) of the flock. The productivity of the land must also be evaluated to determine the carrying capacity (animals/acre) and the estimated yield from crop production. As this varies greatly throughout the province, it is advisable to contact an OMAFRA Sheep or Pasture Specialist to find out more about your area.

Many producers are under the impression that you must own land to be a farmer or raise sheep. In many cases, unless you already own the land, it is likely most economical to rent your land and buildings. The extra debt load imposed on the farming business by buying land may be enough to make the farm business unsuccessful. Unless you have an off-farm source of income to pay for the farm mortgage, renting may be the most viable alternative.

Machinery

What equipment do you need to operate a sheep enterprise? If you pasture your sheep you may need equipment to clip pastures for weed control and to spread fertilizer. Unless you are over-wintering your sheep on pasture, you will need to remove manure from the sheep barn and yards. The equipment needed for this could consist of a 40 to 65 h.p. tractor with a front end loader, a rotary mower, and perhaps a manure spreader. If you are going to be producing winter feed on-farm, baling and combining equipment will also be needed. It may be cheaper to buy your hay and grain than produce it yourself when you consider the cost of the equipment and labour required. If forage and grain are purchased off the farm, the shepherd has the opportunity to expand the flock by using more land for pasture. Hiring custom operators with their own equipment to crop your land may also be a viable alternative.
Chapter 2: Sheep Housing and Handling

Housing
Sheep do not require elaborate housing. Although extra considerations must be made for young stock and during lambing, adult sheep do not require a warm barn and can thrive if they are provided with a draft free place to get out of the snow and wind. Remember that animals housed outdoors during winter will have to put energy resources towards maintaining body temperature and, therefore, will have greater nutritional requirements. During periods of high production demands such as lactation or growth, the animal may not be able to eat enough to supply these needs, so production and body condition will suffer. When housing outdoors during the summer, do not neglect to provide shade for animals. When housing indoors, space requirements including floor space and feeder space must be evaluated to determine how many sheep can be housed in a given pen. (See the Code of Practice for the Care and Handling of Sheep, Section 2 – Facilities, for more information.)

The most important things to consider when assessing housing facilities are:

- Adequate floor space for the number of animals to be housed. Ewes require 10-20 square feet depending on the stage of production. There must be sufficient space for all animals to simultaneously lie down and ruminate, stand up, turn around, adopt resting postures and move around easily.
- The ease of feeding, cleaning, and handling the flock
- Ventilation and drainage

Lambing Facilities
Lambs are born with little fat cover and a low energy reserve. Hypothermia is the main cause of lamb loss in Ontario and lambs that are exposed to cold, wet conditions are very vulnerable. Therefore, an insulated area is a must if you are lambing in the winter. Once lambs are dried off and have a good start, they are better able to handle lower temperatures.

Many producers will isolate ewes with newborn lambs into mothering pens for a day or two. The purpose of these pens is to allow the ewe to calmly accept her lamb in safe and stress free environment. This may be particularly important for ewes the first time that they lamb, as they are more likely to reject the lamb(s). As well, other ewes that are close to lambing themselves may attempt to ‘steal’ newborns. Pens should be clean, easily disinfected, draft free and constructed so that lambs cannot become chilled or trapped. They should be no less than 4’ x 5’ in floor size and at least 30” high.

Ventilation
Ventilating barns properly is an important and at times challenging aspect of maintaining a healthy flock. Viruses and bacteria thrive in low quality air and can cause respiratory diseases in animals. This is a particular problem for young stock, which are more prone to pneumonia resulting in poor growth and high mortality. When livestock are housed in barns the air should be kept clear of excess humidity and heavy odours. This is complicated by the fact that by-products of forage digestion are water and heat, and a flock of sheep can produce very humid conditions in a barn in a short period of time. The purpose of a ventilation system, therefore, is to replace the moist, warm air inside the barn with cool, dry air from outside. Providing adequate ventilation during the winter is a balance of circulating enough outside air to keep humidity down, while maintaining adequate warmth (e.g. prevent water lines from freezing, protect lambs, etc). Ventilation during the summer may be even more problematic if the outside humidity equals that within the barn.

Barns can be ventilated naturally or by forced air fans. Open style barns are usually well enough ventilated but some of the larger ones require more elaborate systems to get air circulating through all areas. For closed barns, opening windows away from the wind will help solve the problem, but take
care to prevent drafts directly onto the animals during the winter. Reducing stocking density, shearing animals, and providing dry bedding will help avoid problems with humidity in both the summer and winter.

To learn about specific types of ventilation systems or if you are in doubt about the ventilation capacities of your barn, contact your provincial specialist to arrange a consultation.

**Flooring**

Floors are typically either earth or cement. Earth floors are warmer, softer, and more economical, but may be hard to maintain. Good drainage is needed to keep the floor dry. Concrete floors are very hard and unforgiving, but are easy to maintain and sanitize. Sheep must not be housed on solid concrete floors without providing adequate clean, fresh bedding. If it isn’t clean enough or bedded well enough for the shepherd to curl up on, then it isn’t adequate for the flock either.

**Penning**

Ideally sheep should be divided into group pens according to nutritional requirements. This allows the shepherd to meet the nutritional needs of the animals as closely and economically as possible. Animals may be penned according to the following groups:

- open/dry ewes on maintenance diet
- rams
- ewes preparing for breeding (flushing)
- type of pregnancy (i.e. single or multiple pregnancy; if pregnancy testing performed)
- ewes with newborn lambs
- lactation demands (e.g. number of lambs, stage of lactation)
- market lambs based on age, weight, and/or finish
- replacement ewe and/or ram lambs (may feed differently than market lambs)

Barriers, pen dividers, other penning or handling structures, must be suitable for sheep and maintained and cleaned to minimize potential illness and injury (e.g. ensure there are no sharp edges and projections that might injure sheep). Sheep penned alone must have visual contact with other sheep.

**Feeding**

Sheep should be fed in a manner that does not require the shepherd to enter the pen with the flock. Walk-through (feeder divides two pens, allowing producer to feed both pens) or bunk feeders accessible from alleys should be used. Adequate bunk space must be provided to allow all sheep to eat at the same time with some space left over. This allows smaller, more submissive animals to eat at the same rate as the rest of the flock. This helps maintain an ideal average body condition in the pen, and helps decrease the incidence of overeating disorder in feeder lambs.

There are various styles of feeders available. Feeders should be designed to keep sheep from walking on the feed and to prevent feed from being pulled onto the ground. This helps keep feed clean to minimize parasite loads and decrease feed wastage. Commercially produced feeders will last longest, but for economic reasons adequate feeders can be made from wood.

**Feed Storage**

Grain must be kept dry (i.e. off the ground and protected from the elements). Grain that gets wet is prone to developing moulds, which are potentially harmful to the sheep. Grain should also be protected from rodent infestation as much as possible. Protecting hay from moisture and sunlight helps to maintain nutrient quality and prevents wastage.
Watering
Where possible, automatic watering devices should be provided. In cold barns you may have to consider heated automatic bowls and insulated or heated pipes. Approximately 40 ewes, 10 rams, or 50-75 feeder lambs can use one watering bowl. Water is the most important and often the most overlooked nutrient in a sheep’s diet. Sheep do not like dirty water and will consume more if it is not fouled. Bowls should be checked daily and cleaned when needed. A quick scoop that only takes a second will clear the bowl of hay, straw, or manure.

If you are using ponds or dugouts as a water source, watch for build up of blue-green algae. This alga can be potentially fatal to livestock and humans.

Manure Storage
Store manure away from buildings and corrals to prevent run-off into sheep housing areas, water sources, and feed supplies. Take precautions when spreading manure to prevent contamination of water sources and oversupplying nutrients to soil. Contact OMAF to learn about these regulations and how to implement a nutrient management plan on your farm.

Canada Plan Service

Canada Plan Service (CPS) is a nationwide network of agricultural engineers and livestock specialists concerned with the planning, design and construction of modern farm buildings. Their goal is to gather ideas from across Canada and then develop construction and management recommendations. In this way, up-to-date building technology and farmstead management practices are available to all Canadian farmers. Ten technical committees, with membership drawn from each province, develop the Canada Plan Service publications. Publications take the form of detailed construction plans or management and construction leaflets. Each province distributes the plans and leaflets according to its needs. (See their website (www.cps.gov.on.ca or contact OMAF (1-519-826-3100) for information on how to order building plans).

The CPS Information Resource focuses on the following areas:
1. Farm Structures and their Environments
2. Waste Handling and Storage
3. Animal Care and Comfort
4. Crop Handling, Storage, Processing and Conditioning
5. Rural Environment
6. Systems Engineering

A few of the plans available specifically for sheep housing and handling include:
- Pole frame sheep shed
- Slotted floor sheep barn
- Sheep drylot unit
- Shearing floor and fleece-sorting table
- 6-sided sheep feeder
- Adjustable feed bunk
- Mineral boxes
- Lamb creep feeders
- Feed rack
- Fence line and walk through feeders
Chapter 2: Sheep Housing and Handling

- Sheep corral fencing and gates
- Loading chute
SHEEP HOUSING

NEW 81.09

Sheep production in Canada is divided between range and farm flocks. Sheep on the range require little protection except during lambing. Farm flocks may be allowed to graze during summer months but some protection is required during winter and lambing periods. They may also be raised in year-round confinement housing. Sheep suffer more from drafts and moisture than from low temperatures. Open-front sheds for protection from wind and moisture are adequate. When lambing occurs during early spring or periods of adverse weather, closed housing should be provided for the ewes and new-born lambs. Plans in this series are suitable for both farm and range production.

LOCATION Buildings and pens for sheep should be located on a well-drained site. A southern slope on well drained soil is preferred. A central location for farm flocks allows for fly control around the buildings as well as providing some protection from dogs and other predators.

Barn roofs should slope away from the feedlot area, or alternately eave troughs should be provided to run water away from the pens.

Buildings should have open fronts protected from or facing away from the prevailing winds. In the dry, windy prairie climate, corrall fencing should be of the slotted board type (20% porous) for maximum wind protection. In humid Eastern Canada, solid windbreaks to 3 m height are preferred on the windward sides of the lots.

VENTILATION Buildings used for confinement rearing of sheep or as shelter for farm or range flocks should have adequate provision for ventilation. Eave and ridge openings should be provided in open-front sheds for air movement. Hinged or removable panels should be provided for additional summer air circulation. In totally enclosed buildings thermostatically controlled fans may be used. The building should be adequately insulated to reduce heat loss and to improve ventilation control. A vapor barrier and sheathing on the inside wall will be required to protect the insulation. Supplemental heat may be required during extremely cold winter.

The Canada Plan Service prepares detailed plans showing how to construct modern farm buildings, livestock housing systems, storages and equipment for Canadian Agriculture.

This leaflet gives the details for a farm building component or piece of farmstead equipment. To obtain another copy of this leaflet, contact your local provincial agricultural engineer or extension advisor.
### SHEEP HOUSING

**PLAN N-4000**

**ACCOMMODATION FOR SHEEP**

<table>
<thead>
<tr>
<th>ACCOMMODATION</th>
<th>EWES AND RAMS</th>
<th>FEEDER LAMBS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Feed Lot</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>hard surfaced</td>
<td>1.4 m²/头</td>
<td>0.6 m²/头</td>
</tr>
<tr>
<td>soil*</td>
<td>6.5 m²/头</td>
<td>2.8 m²/头</td>
</tr>
<tr>
<td><strong>Open-Front Shed</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>floor area</td>
<td>1.4 m²/母羊</td>
<td>0.6 m²/头</td>
</tr>
<tr>
<td></td>
<td>0.93 m²/公羊</td>
<td></td>
</tr>
<tr>
<td>ceiling height</td>
<td>2.7 m</td>
<td>2.7 m</td>
</tr>
<tr>
<td><strong>Slotted Floors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>area per animal</td>
<td>0.65 m²</td>
<td>0.4 m²</td>
</tr>
<tr>
<td>% slotted floor area</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>slot width</td>
<td>19 mm</td>
<td>16 mm</td>
</tr>
<tr>
<td>slat width</td>
<td>50 to 75 mm</td>
<td>50 to 75 mm</td>
</tr>
<tr>
<td><strong>Lambing Pens (not slotted)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>claiming pen only</td>
<td>1.2 x 1.2 m</td>
<td></td>
</tr>
<tr>
<td>lambing and claiming pen</td>
<td>1.2 x 1.5 m</td>
<td></td>
</tr>
<tr>
<td><strong>Feed Rack</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>length per head</td>
<td>400 mm group feeding</td>
<td>300 mm group feeding</td>
</tr>
<tr>
<td>height at throat</td>
<td>150 mm self-feed</td>
<td>100 mm self-feed</td>
</tr>
<tr>
<td></td>
<td>300 mm small breeds</td>
<td>250 mm small breeds</td>
</tr>
<tr>
<td></td>
<td>375 mm large breeds</td>
<td>300 mm large breeds</td>
</tr>
<tr>
<td><strong>Feed Storage</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>hay</td>
<td>1.4 kg/头-天（小品种）</td>
<td>0.9 kg/头-天</td>
</tr>
<tr>
<td></td>
<td>2.3 kg/头-天（大品种）</td>
<td></td>
</tr>
<tr>
<td>grain</td>
<td>0.15 kg/头-天</td>
<td>0.23 kg/头-天（维护）</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.45 to 1.13 kg/头-天（终末期）</td>
</tr>
<tr>
<td><strong>Bedding Storage</strong></td>
<td>0.34 kg/头-天</td>
<td>0.11 kg/头-天</td>
</tr>
<tr>
<td><strong>Water</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>surface area</td>
<td>0.09 m²/40头</td>
<td>0.09 m²/40头</td>
</tr>
</tbody>
</table>

*Soil surfaced feed lots should be used only where annual precipitation is less than 500 mm. With soil surface, a paved feeding strip should be provided adjacent to each feed bunk. This paved strip should be at least 1.8 m wide, or as wide as the tractor used for cleaning, and the strip should slope at 1.25 away from the feed bunk.*

**An alternative to slotted floors, for ewes, rams or lambs is 25 by 50 mm, 4 mm expanded and flattened metal mesh. Expanded metal mesh floors may be covered with a solid panel to retain bedding for lambing.*
Building or renovating

When a decision is made to construct or make modifications to a farm building, new building code regulations must be considered. Farm building construction in Ontario is primarily regulated by the Ontario Building Code 1990. This code, proclaimed on October 1, 1990, recognizes farm buildings to a larger extent than previous Ontario Building Codes. **It is necessary to obtain a building permit for all agricultural construction projects in Ontario.** Manure storage, grain bins and silos all fall into the definition of "farm buildings", and along with all other farm structures, will require building permits.

Farmstead Planning

When planning a new building or adding to an existing farmstead, you must consider such things as:

- Site drainage
- Services (lanes, power, water supply, waste disposal:
- Security
- Separation distances for snow and wind control, ventilation and disease control
- Distance separation from residences for control of noise and odours
- Municipal Regulations

Office of the Ontario Ministry of Agriculture, Food and Rural Affairs can provide many Factsheets and other publications pertaining to the planning of farm buildings, manure storage, etc. Check with your local municipality and OMAFRA early in the planning stage. The construction of livestock facilities is usually only permitted in agricultural zones. In addition, the location of the facilities is often restricted by setback distances from roads, lot lines, neighbouring houses and land uses. Usually these setback distances are based on the Agricultural Code of Practice and take into account:

- Number of animals on the site.
- Type of livestock
- Management system
- Degree of expansion
- Manure storage
Planning Your Sheep Handling Facility

Introduction

Well-designed sheep handling facilities are essential if a producer is to have a successful sheep production operation. The sheep producer will find few other investments that can match handling facilities with respect to labour efficiencies and savings. Most producers will only build, or purchase, one handling facility in their lifetime, so planning is essential.

Incorporate existing paddocks, laneways and barnyards into the handling system to allow for ample space when the flock is held in the yards for extended periods of time. Sheep need to move smoothly between these areas with a minimum of fuss. To achieve this, a producer needs to understand how good design encourages the sheep and lambs to move ahead through the system without balking, thereby keeping problems for workers to a minimum. Well-designed facilities are easy to operate, saving stress, labour and their associated costs.

Planning

Sheep handling in "make-do" pens is not only hard, difficult work, it is outright unpleasant, and results in important jobs like vaccinating and deworming being delayed or not getting done at all.

To ensure that the handling facility will accommodate all the required jobs, make a complete list of the operations that will be carried out, and plan how these jobs will be done.

A useful checklist includes: shearing, crutching, sorting, deworming, vaccination, body condition scoring, pregnancy scanning, foot trimming, foot bathing, weighing, loading and sale of sheep.

Factors to be taken into consideration include:

- best location for the facilities
- size of groups the facility will need to handle
- amount of labour available for working the sheep in the facility
Facilities Design

In simple terms, handling facilities comprise the following: low density holding areas, high density holding areas, forcing (or crowding) area, drafting (sorting) race, and handling (working) race.

Most producers can use nearby pastures and laneways as their low density holding areas. These areas need to be secure enough to prevent escapes (particularly lambs) from one area to the next. Consider using net wire fencing with openings no larger than 15 cm by 15 cm, secured to closely spaced posts.

High-density holding areas need to be built with medium to strong fencing materials. Densities of 2 sheep in full fleece per square metre allows enough room to drive the group into the yards, while leaving space for gates to swing, and dogs to work where they are used. It is particularly important that these areas are long and narrow so that groups are easily controlled while being driven up into the forcing (crowding) race. Recommendations in Australia and New Zealand are that these high-density holding areas be no wider than 10 m. If greater capacity is needed, it is better to lengthen them, rather than making them wider. (Conroy and Hanrahan, 1994)

A combined lead-up race and forcing pen that is 3 m wide has proven very effective in many handling facilities, particularly for large flocks. It allows large groups to be broken down into smaller groups for ease of handling. The drafting and working races will lead off from this area.

Triangular force pens (sometimes referred to as 'V' force pens) are usually used in rectangular facilities and can be built in single or double forms (see Figure 1). Note that the single force pen has 1 fence as an extension of the race side, with the 2nd fence set at a 30-40° angle. The double-triangular force has 2-wing fences running back at similar angles and a central fence with a flip-flop gate at the race entrance to allow sheep entry from either side.

Curved force pens (bugle) were thought to take advantage of sheep's inclination to follow flock mates that "disappear" around a curve, and enable one person to efficiently process the sheep alone. However, more recent research has shown that in 1.5 m wide races, sheep move better through straight races than through curved races. Only when they move in single file do races with corners prove superior to straight races. (K. Ransom & P. Hanrahan, 1990)

Force pen designs that do not work efficiently, and should be avoided, include square-shaped and the double-triangular force pen without the central fence (see Figure 2). The major problem with both of these designs is that sheep can easily avoid entering the race by turning suddenly (ringing) at the race entrance. (H.M. Hamilton, 1990)

For efficient drafting (sorting), the operator needs to be able to easily identify and draft the sheep he or she wishes to separate with a minimum of errors. To do this accurately requires an even flow of sheep. For small flocks, a 2-way sort is satisfactory, but in larger scale sheep operations, a 3-way sort, using 2 gates, may be necessary.

Make the sorting race at least 3 m long, with the exit point showing a clear escape route for the sheep. The race walls need to be solid-sided, to eliminate sheep being distracted by those on the opposite side,
to ensure continuous flow of sheep. If the race is also used for drenching and vaccinations, a producer may want to consider a slightly wider race, or one with adjustable sides.

The draft gate needs to be a minimum of 1 m long to allow sheep to exit the race easily. Draft gates shorter than this cause sheep (particularly heavy woolled and pregnant ewes) to jam against the edge of the race when exiting, and slow the flow significantly. There is some debate as to whether the draft gate should be made of "see-through" panels or solid sheeting. Barber and Freeman (1993), in "Design of Sheep Yards", give the following as reasons for using "see-through" gates:

- the oncoming sheep can see the previous sheep moving away from the draft and are more inclined to follow
- see-through gates are lighter, and therefore, quicker and easier to use
- see-through gates are less affected by winds blowing across the drafting race.

As well, they list these points as reasons for using solid draft gates:

- such gates act as a continuation of the drafting race wall, thus directing the sheep into the exit pen;
- solid gates prevent horns or legs from getting caught.

A multipurpose handling race for drenching, vaccinating and other activities is needed in sheep yards. Most producers in Ontario will opt for this type of race over having both a handling race and a drafting race.

Several different types of handling races can be built:

- a single race 52-64 cm wide where the worker is outside the race
- a single race 70-80 cm where the worker is inside the race
- an adjustable-sided race in which the width can be varied between 45-80 cm

A suitable handling race is 6-15 m long with sides 85 cm high.

**Conclusion**

Handling facilities are essential if producers expect to find any savings in labour and efficiencies in the management of their sheep.

**Figure 3** shows a basic handling facility layout for sheep flocks with the key components identified. **Table 1** provides dimensions for the various components of handling facilities.

**References**


Yards 'n Yakka. Kondinin Group. 1990

Figure 1. Examples of successful force pen shapes.

![Figure 1](image1.png)

Text Equivalent of Figure 1

Figure 2. Examples of unsuccessful force pen shapes.

![Figure 2](image2.png)

Text Equivalent of Figure 2

Figure 3. Basic handling facility layout for sheep flocks.

![Figure 3](image3.png)
Text Equivalent of Figure 3
Table 1. Yard dimensions in centimetres (100 centimetres = 1 metre)

<table>
<thead>
<tr>
<th>Facility</th>
<th>Range (cm)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Working Race</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length</td>
<td>600 - 1,200</td>
<td>Open or closed-in sides.</td>
</tr>
<tr>
<td>Width (fixed sides)</td>
<td>60 - 75</td>
<td></td>
</tr>
<tr>
<td>(adjustable sides)</td>
<td>45 - 80</td>
<td></td>
</tr>
<tr>
<td>Height</td>
<td>82 - 90</td>
<td>Keep low if sheep are worked from outside the race.</td>
</tr>
<tr>
<td>End Gate Height</td>
<td>110</td>
<td>Sheep usually jump gates rather than sides.</td>
</tr>
<tr>
<td><strong>Drafting Race</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length</td>
<td>300 - 350</td>
<td>Closed-in (solid) sides.</td>
</tr>
<tr>
<td>Width</td>
<td>42 - 48</td>
<td>Can be tapered at the bottom or of variable width.</td>
</tr>
<tr>
<td>Height</td>
<td>85 - 100</td>
<td></td>
</tr>
<tr>
<td><strong>Fence Heights</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perimeter Fence</td>
<td>95 - 110</td>
<td></td>
</tr>
<tr>
<td>Internal Fence</td>
<td>90 - 105</td>
<td></td>
</tr>
<tr>
<td><strong>Gates</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perimeter</td>
<td>300 - 400</td>
<td></td>
</tr>
<tr>
<td>Internal</td>
<td>200 - 300</td>
<td></td>
</tr>
<tr>
<td>Draft</td>
<td>120 - 150</td>
<td>Open sides (see-through).</td>
</tr>
<tr>
<td><strong>Loading Ramp to Truck</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Width</td>
<td>70 - 100</td>
<td>Slope not steeper than 1:3.</td>
</tr>
<tr>
<td>Length</td>
<td>300 - 500</td>
<td></td>
</tr>
<tr>
<td>Height (fixed)</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td>Height (variable)</td>
<td>70 - 210</td>
<td></td>
</tr>
</tbody>
</table>

Adapted from Sheepyard and Shearing Shed Design. F. Conroy & P. Hanrahan. 1994

For more information:
Toll Free: 1-877-424-1300
Local: (519) 826-4047
E-mail: ag.info.omanfra@ontario.ca
Producers who understand sheep behaviour can use this knowledge to their advantage in all aspects of sheep production and management. Whether setting up and using handling and shearing facilities, moving the flock to a new pasture, or catching an individual sheep, taking their behaviour into account ensures the job is completed in an efficient, low-stress manner.

Some important aspects of sheep behaviour as it relates to handling and movement include:

- Sheep do not like to be enclosed in a tight environment and will move on their own accord into large areas.
- Sheep move toward other sheep willingly
- Sheep move away from workers and dogs
- Sheep have good long-term memories (relative) especially with respect to unpleasant experiences.
- If given a choice, sheep prefer to move over flat areas before up an incline, and up an incline before moving down it.
- Sheep prefer to move from a darkened area towards a lighter area, but avoid contrasts in light.
- Sheep flow better through facilities if the same paths and flow directions are used every time.
- Stationary sheep are motivated to move by the sight of sheep running away.
- Sheep will balk or stop forward movement when they see sheep moving in the opposite direction.
- Sheep will move faster through a long, narrow pen or area, than through a square pen.
- Sheep move better through the handling chute (race) if they cannot see the operator.
- Sheep will more willingly move toward an open area than toward what they perceive as a dead end.
- Very young lambs that become separated from their dams will want to return to the area where they first became separated.
- Sheep react negatively (as do all livestock) to loud noises and yelling and barking.
- Young sheep move through facilities easier when their first move through is with well trained older sheep.

Many years of observation, by people who have worked with sheep under a wide range of conditions, have gone into establishing the above-listed points of sheep behaviour. They illustrate that certain actions and reactions by sheep are very predictable, and can be used to the producer's advantage in all aspects of sheep management. Those producers who incorporate aspects of sheep behaviour into management of their flock will see positive results in the ease of moving groups, willingness of sheep to enter and be processed in handling facilities, and fewer stress indicators in the animals and handlers.

References:
Herding Dogs

A well-trained dog can save the producer a great deal of effort when herding and moving sheep. Many breeds of dogs are used on sheep farms throughout the world. In Canada, the black (or brown) and white Border Collie is perhaps the most popular. In selecting a dog, make enquiries, watch sheep dog trials and, if possible, enlist the aid of an experienced handler. A purebred dog is by no means essential, but a well-trained dog is. Most breeds of herding dogs have strong instincts to stalk and chase livestock. If these instincts have not been properly channeled through training, dogs will generally do more harm than good by chasing sheep in the wrong direction, running through the flock, or becoming overly aggressive towards the sheep. Even with well-trained dogs (depending on their temperament), you may wish to restrict their use to gathering sheep in large areas, rather than in small pens or handling systems. Dogs may become overly excited with sheep in confined areas, particularly if the flock isn’t moving well. The sheep will remember the frightening experience and may be reluctant to enter the handling system the next time. If you buy a professionally trained dog, be sure to take some time to learn commands that the dog will understand; improperly trained people may be just as frustrating for dogs, as poorly trained dogs are to shepherds.