Housing for sheep

Housing needs for sheep vary by climate, season(s) of lambing, and management preferences of the shepherd. If lambing will occur during periods of inclement weather, more elaborate housing is usually required. If lambing will occur on pasture during periods of mild weather, simple shelters may be all that is needed.

Lambing percentages are usually higher when shed lambing is practiced. Housed sheep have lower nutritional requirements, whereas sheep kept outside have fewer respiratory problems.

In addition, most operations need facilities where they can store feed, bedding, and equipment. Hay stored in a barn or shed will maintain its quality better than hay that is stored outside, even if the hay is covered. Equipment will last longer if it is housed under a roof.

Barns (and similar structures) are often built for the comfort and convenience of the shepherd. During cold or inclement weather, it is easier and more enjoyable to care for sheep that are housed. However, housing costs can add significantly to the investment costs of a sheep enterprise.

Options

There are many different types of housing that can be used for sheep. Traditional barns, pole buildings, and metal buildings are usually the most expensive, but they provide the best protection for the shepherd, sheep, feed, and equipment.

A lower-cost alternative to traditional housing is a greenhouse-type structure called a "hoop house." A hoop house has an arched metal frame that is covered with a heavy fabric. Fabrics last for approximately 15 years.

Sheep facilities do not need to be built new. Old dairy, swine, and poultry barns can be converted to housing for sheep. Many facilities can be remodeled to accommodate sheep raising. Many universities and provincial governments have building plans for sheep facilities.

Site location

Facilities should be located on elevated, well-drained sites. When designing a three-sided shelter, the open side should face south away from the prevailing wind. The barn should be easily accessible for deliveries and manure handling. The site should allow for installation of water and electricity.

Space requirements

When confined to a building, a bred ewe requires 12 to 16 square feet of living space. Lambing pens should be 16 to 25 square feet in size. In group housing, a ewe with her lambs needs 16 to 20 square feet. Feeder lambs need 8 to 10 square feet.

Less space is required if sheep are raised on slatted floors or if they have access to an exercise area or pasture. Shearing before housing will allow stocking rates in the barn to be increased by up to 20%.

Recommended housing space (square feet) for sheep and lambs

<table>
<thead>
<tr>
<th>Stock</th>
<th>Dirt lot</th>
<th>Open shed</th>
<th>Confinement (dirt floor)</th>
<th>Confinement (slatted floors)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bred ewe</td>
<td>20</td>
<td>8</td>
<td>12-16</td>
<td>8-10</td>
</tr>
<tr>
<td>Ewe with lambs</td>
<td>25</td>
<td>12</td>
<td>16-20</td>
<td>10-12</td>
</tr>
<tr>
<td>Ram</td>
<td>20</td>
<td>8</td>
<td>20-30</td>
<td>14-20</td>
</tr>
<tr>
<td>Feeder lamb</td>
<td>15-20</td>
<td>6</td>
<td>8-10</td>
<td>4-6</td>
</tr>
</tbody>
</table>

Source: Midwest Plan Service, Sheep Housing and Equipment Handbook, 1982
Ventilation

Barns should not be heated or closed up. Good ventilation is an absolute must. Respiratory problems (e.g., pneumonia and bronchitis) often result from poor ventilation. If ammonia can be smelled in the barn, ventilation is likely inadequate.

Ventilation can be accomplished by either natural or mechanical means, but usually naturally-ventilated cold housing is preferable for sheep. It is better to over-ventilate than under-ventilate. The only requirement is that sheep have a dry, draft-free area for lambing.

Bedding

Bedding provides warmth, insulation, and comfort to housed animals. Various materials can be used for bedding for sheep, depending upon their cost and availability: straw, hay, dried corn stalks, corn cobs, peanut hulls, cottonseed hulls, oat hulls, sawdust, wood shavings, wood chips, pine shavings, sand, paper products, peat, hemp, and leaves. Each type of bedding has advantages and disadvantages.

Straw is the traditional bedding for livestock. It comes from the stems of small grains: oats, wheat, rye or barley. Since straw has many uses other than livestock bedding sometimes it costs more than alfalfa hay. As a result, hay is often a cheaper alternative than straw.

Sawdust is not good bedding for wooled sheep because it gets in their fleeces, but works fine for hair sheep. Wood chips or peanut shells are less absorbent than other materials, but can be used as bedding.

Shredded paper (or newsprint) is more absorbent than straw, but is more difficult to handle and may look offensive when spread on fields. Sand has been used by dairy farms to reduce mastitis and improve cow comfort. No matter what material is used for bedding, it needs to be clean and dry.

Livestock bedding alternatives

<table>
<thead>
<tr>
<th>Bedding material</th>
<th>Absorption factor*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat straw</td>
<td>2.1</td>
</tr>
<tr>
<td>Barley straw</td>
<td>2.0</td>
</tr>
<tr>
<td>Oat straw</td>
<td>2.4 to 2.5</td>
</tr>
<tr>
<td>Hay</td>
<td>3.0</td>
</tr>
<tr>
<td>Sawdust</td>
<td>1.5 to 2.5</td>
</tr>
<tr>
<td>Shavings</td>
<td>1.5 to 2.0</td>
</tr>
<tr>
<td>Corn stover</td>
<td>2.5</td>
</tr>
<tr>
<td>Sand</td>
<td>0.3</td>
</tr>
<tr>
<td>Peat moss</td>
<td>10.0</td>
</tr>
</tbody>
</table>

* Weight of water held per unit of try material. Assumes initial moisture content of bedding < 10%.


Keeping Sheep Outside Year-round

Some producers keep their sheep outside year-round. It is more natural. Sheep kept outside benefit from better ventilation and more exercise. Their fleeces stay cleaner. Winter grazing can result in considerable feed savings. Tall fescue is usually the best forage for stockpiled grazing.

Sheep can graze through approximately 12 inches of snow. If the snow is not hard or crusted, the sheep can usually eat enough snow to meet their water requirements; otherwise they need to be watered at least once per day. Lactating ewes should have access to water at all times.

It is common to temporarily house sheep after shearing and/or during lambing. Adult sheep can handle cold and wet weather rather well, but newborn lambs cannot. The combination of cold and wet can kill even a two week old lamb, if there is not sufficient shelter. Emergency shelter is needed for bad storms. Nutrition is the key to keeping sheep outside in the winter. If they have enough to eat, they will stay warm.

Not having to clean the barn and spread manure on the fields is another major benefit to keeping sheep outside.

Shelter and Shade

There is disagreement as to whether sheep require shelter while they are on summer pasture. Sheep will usually choose shelter if it is available to them. Protection from heat is probably more important than protection from rain, though hair sheep are more likely to seek shelter from rain than wooled sheep and less likely to seek shade during the heat of the day.

In many cases, trees or a windbreak is all the shelter that sheep need. In open fields without sufficient tree coverage, simple run-in sheds or shade structures can be constructed or purchased. Port-a-huts, calf hutches, polydomes, and carports are useful for small flocks.

Total Confinement

Sheep can adapt to a complete confinement system of production. Confinement enables a producer to raise sheep or increase flock size in situations where land is a limiting factor due to availability or cost. Confinement can vary from open, dry (dirt) lots to buildings with
Shade structure in Nova Scotia

Slatted floors in Barbados

expanded metal floors and automated manure handling systems. Confinement requires intensive, year-round management. Because it tends to have a higher cost of production, higher levels of performance are usually required.

There are numerous advantages to raising sheep and/or lambs in total confinement. Predator problems can be eliminated by keeping sheep in confinement. Internal parasite problems can be practically eliminated, as infective worm larvae is consumed primarily by grazing animals.

It is usually easier to control foot rot and foot scald in confinement. Confinement lends itself well to automated feeding systems. It is common to fatten (feed) lambs in confinement. Less space is needed if expanded metal or mesh flooring is used. The use of rubber mats will improve comfort and insulation.

In fragile environments, confinement can prevent overgrazing or other environmental impacts caused by poor grazing management. Zero grazing is common in many third world environments.

Security is superior when animals are kept in small areas that can be more easily monitored.

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