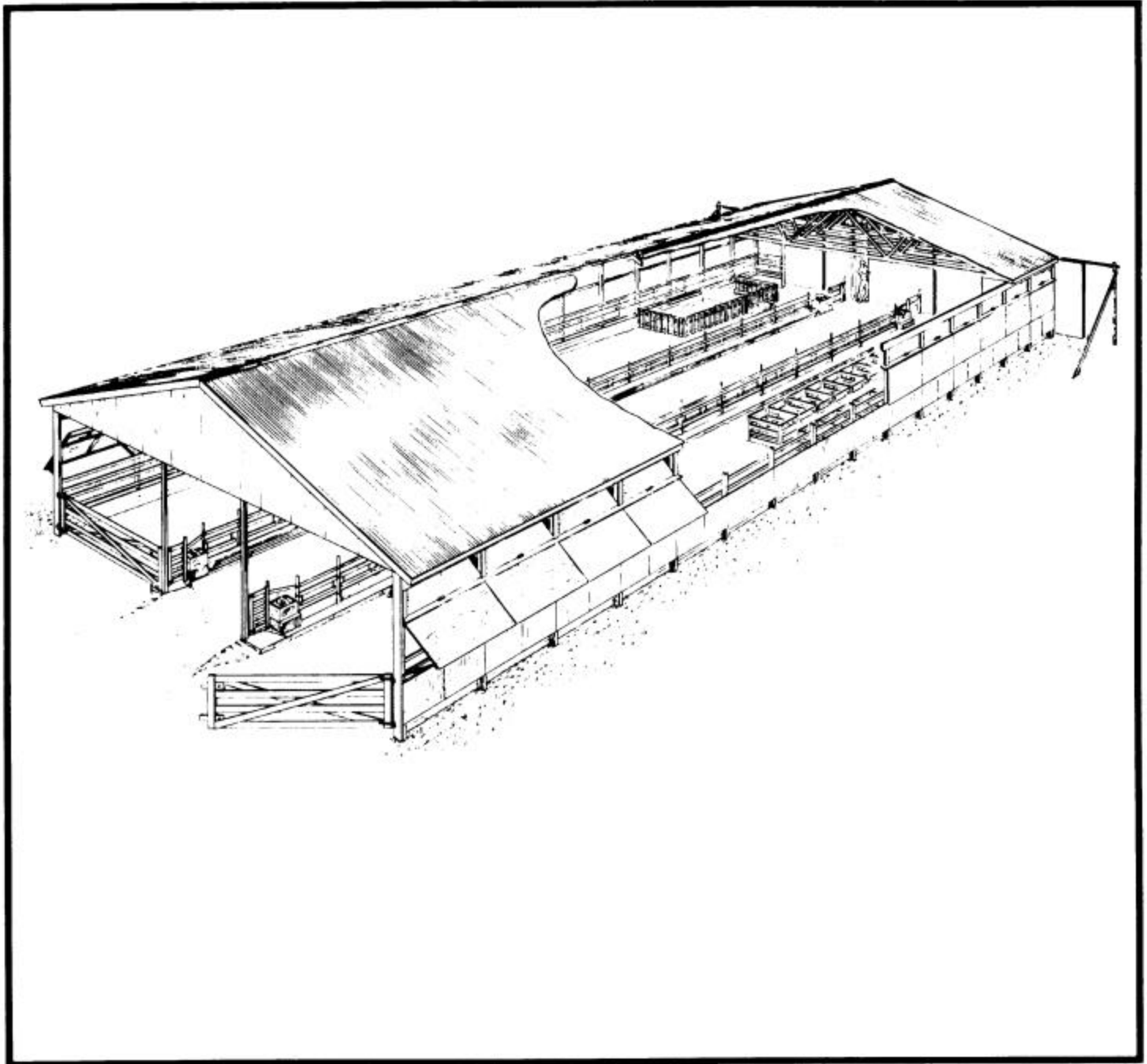




OPEN-END POLE SHEEP BARN, DRIVE-THRU FEEDING



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 management information and describes one of these detailed plans. To obtain a copy of the Canada Plan Service detailed plan, contact your local provincial agricultural engineer or extension advisor.

OPEN-END POLE SHEEP BARN, DRIVE-THRU FEEDING

PLAN 4151 NEW 4:76

This plan gives details for an eastern confinement sheep barn 44 x 120 ft. The length can be changed in units of 8 ft if required.

Flock Management

The 120-ft length easily accommodates 170 ewes at 21 sq ft of pen space per ewe. This is generous, but the idea is to provide complete multi-purpose housing. At lambing time, for example, part of the pen space is divided into a lambing area, claiming pens, hardening pen and nursing pen. Portable gates are used to form each area and the ewes and lambs are moved around to the designated sections required by the different stages of the lambing cycle. Adjust the size of these special pens to suit the numbers of ewes and lambs at each stage.

For lambing in cold weather, supplementary heating will be required in the 4 x 4 ft claiming pens. In "cold" housing like this, it is more practical to cover the claiming pens with plywood panels and to heat this confined space rather than to insulate and heat the whole barn. Use 250-watt heat lamps safely suspended by chains from eyebolts overhead. Install overhead electrical outlets and use CSA-approved heat lamp receptacles. A round hole in the plywood cover lets the heat lamp shine through.

After lambing, fold the pens and store them until the next lambing season.

Feeding

A 9-ft drive-through feed passage between two fence line feed bunks provides the most versatile feeding system; feed by hand from a wagon, or feed mechanically from a self-unloading trailer, truck or forage wagon.

For conveyor-bunk feeding, a narrower building without the center driveway is preferable; see Plan 4152.

The feed bunks can be adjusted to suit the depth of the manure pack. This is a good feature for operators who use a lot of bedding and clean out manure only once or twice a year, but some sheepmen may prefer a simpler, non-adjustable feed bunk; see Leaflet 4616 or 4617.

As truck clearance in the feed passage determines the height of the roof trusses (9 or 11 ft above the floor), check this before building.

Construction

This barn is framed with pressure-treated poles spaced at 8-ft centers along the walls and clear-span roof trusses spaced at 4-ft centers. Start construction by digging or augering postholes to below frost level, then pour a round concrete footing in the bottom of each hole. Tamp this concrete to a level line exactly 4 ft 6 in. below floor datum; this way the poles can be cut and notched at the top for plates and trusses before the poles are erected. This speeds construction and keeps the building level.

For easier manure clean out, spike pressure-treated 2 x 6 inch tongue and groove splash planking to the inside of the poles. To make the structure wind-safe, bolt trusses securely to the top of the wall-poles. Cross-bracing must be installed between end trusses in case a wind comes up during construction.

Ventilation

This barn is designed primarily for the mild, wet winters of eastern Canada, where heavy rain and snow can create management and pollution problems in outdoor feedlots. The barn is open at one end, not at the side; this helps to divert rain and snow from the feedlot and the barn interior. Because of their long wool, sheep in confinement generate a lot of moisture but little heat. Do not close this barn too tightly. The use of some insulation such as fiberboard or polystyrene foam is recommended for control of condensation under metal roofing. The barn is intended to operate cold in winter. The south end is fully open for sunshine and fresh air. Fixed slot openings at the eaves and ridge move air through to control humidity. These slots are designed to minimize snow infiltration; do not make changes without obtaining expert advice.

In milder weather, tilt-in vent flaps at the top of the walls are regulated with a winch-and-cable system to increase ventilation. In summer, larger wall vent flaps can be propped out for maximum shade and cooling.

Protection from Predators

One important advantage of total or part-time confinement is protection from dogs and other predators. If this is a problem, add wire gates and fencing on all wall-openings not protected by doors. Use page-wire fencing or galvanized chicken wire to cover all openings, including those under the summer ventilation flaps.