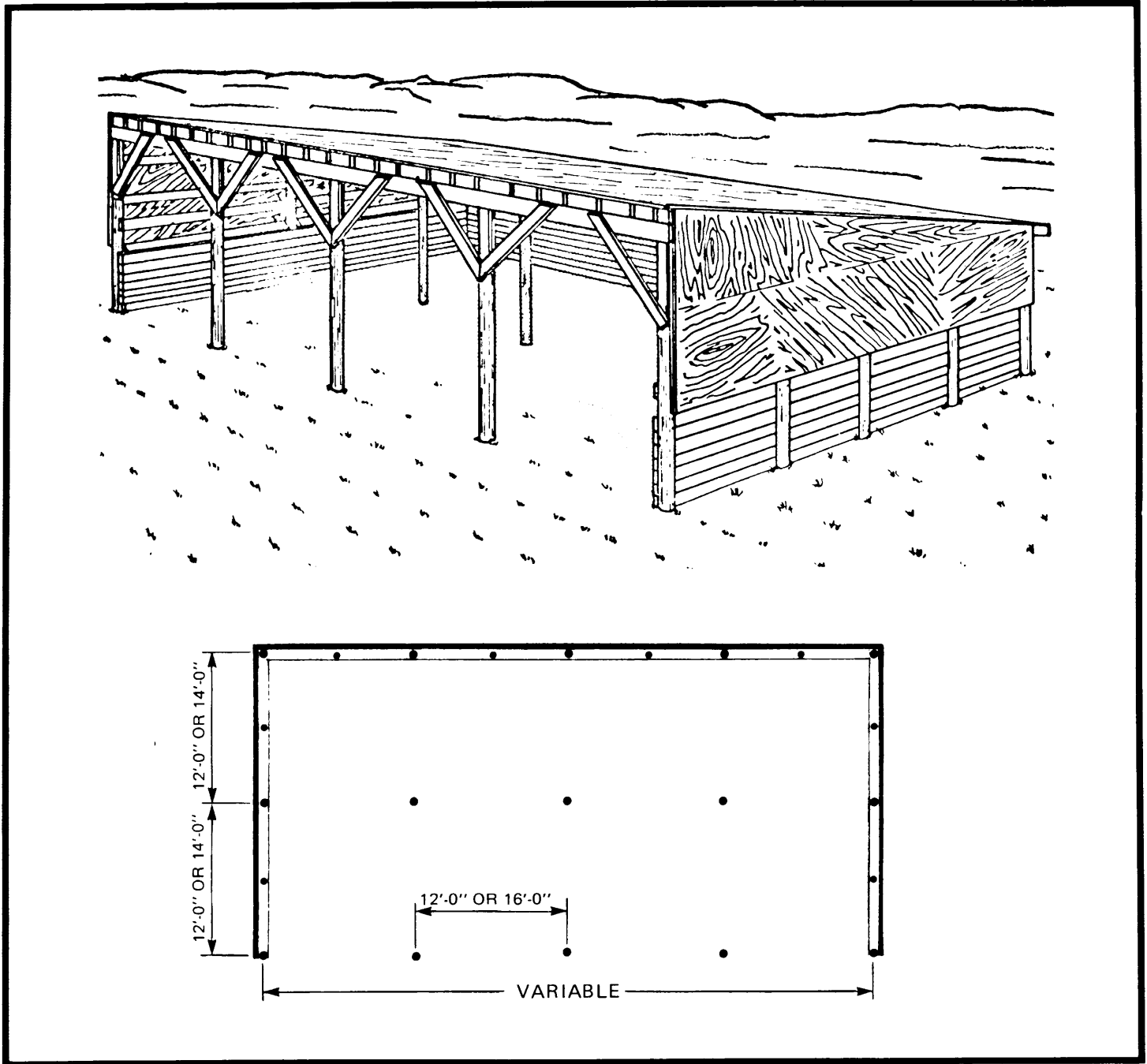


# POLE FRAME CATTLE SHED



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PLAN Q-8164 NEW 84:01  
(SASKATCHEWAN PLANS-150)

This plan is for a general purpose, open-front pole shed with a single-slope roof draining to the rear. It is particularly suitable as a feedlot shelter where you must minimize wet conditions in the feedlot area. Pole spacings and beam designs are given for various snow loads. This design is an alternative to Plan M-8162, if you prefer rafters that run from front-to-back, with a plywood roof deck.

**SHED SELECTION** With 12 ft x 12 ft pole spacing, the shed is 24 ft deep with the length in multiples of 12 ft. With 14 ft x 16 ft pole spacing, the shed is 28 ft deep, with the length in multiples of 16 ft.

The roof snow load for either protected or unprotected wind areas is selected from the Supplement to the National Building Code. Add the snow load to the roof dead loads, as shown in the roof load chart, to find the total roof load. From the beam and rafter tables (sheet 1) select the most economical combination. In areas of light snow, the best choice is usually a shed with 14 ft x 16 ft pole spacing. In heavy snow areas, the 12 ft x 12 ft spacing is preferred.

When choosing between the 12 ft x 12 ft or the 14 ft x 16 ft spacing, consider cost of materials; available materials; depth of shed; pen and shed dimensions; and ease of cleaning out manure. Once the selection is made, circle applicable figures and fill in the dimensions.

**DRAINAGE** The shed should be on a high ground that drains away in all directions. Place coarse gravel behind the building and construct drainage channels to drain away the water from the roof.

**ORIENTATION** Face the open front of the shed south so the sun can warm the manure pack. This will provide a more favorable environment for the cattle.

**NATURAL VENTILATION** When the wind blows from the rear of the building, air enters the shed between the rafters and picks up moisture given off by the cattle. This moisture-laden air is then exhausted between the rafters at the front. Never block off this flow of air or the humidity will harm the livestock and deteriorate the wood.

Make the face board on the back end of the rafters deep enough to prevent snow from entering the shed.

If winds cause severe drafts inside the shed, build a dividing wall halfway between the end walls. It may also be necessary to place framed plywood panels at the front of the shed just below the top beam. If hinged, these panels will hang 4 ft down from the beam and help prevent drafts; they can then be swung up and hooked up to the underside of the rafters, for more sunlight on calm days.

**MANURE SYSTEM** The pressure-treated rough planking, supported by the poles, provides for easy clean out and gives adequate support for 3 ft of manure accumulated inside the shed. The bedded manure pack must not accumulate higher than the retaining planks.