



BEEF CATTLE HOUSING AND EQUIPMENT

COMPLETE INSTRUCTIONS

When designing beef cattle facilities, it pays to provide the required space, shelter, feed, water, waste management and livestock handling features, adapt them to the natural features of the site, and organize them for efficient and easy operation. Beef cattle live through three phases of growth; cow-calf, growing calf and finishing. The season at the beginning of each phase affects what facilities are needed; for example, safe calving in January requires more elaborate shelter than calving in March. For winter and early spring calving, a dry, draft-free shelter is desirable. Cow-calf herds may graze on range or pasture during summer months but need some protection in the winter. Feeder cattle are usually penned in relatively confined areas. All ages of cattle suffer more from mud, wet weather and cold winter winds than from low temperatures alone. Windbreaks and open-front sheds, when properly laid out, can give adequate protection. Plans in this series show various proven components for making efficient beef cattle housing and handling facilities.

LOCATION Construct buildings and pens for beef cattle on a well-drained site. An ideal location is a south-facing slope on well-drained soil, near an adequate water supply but away from streams and population centers. Natural shelter provided by trees is also desirable.

DRAINAGE Where existing slopes are too flat to provide good drainage (less than 4%), move fill to increase effective slope and to build earth mounds. Shape pens so that drainage is away from resting, feeding and watering areas. Slope barn roofs away from the pens, or provide eavestroughs to carry water away from the pens.

In heavy traffic areas such as around feeders and waterers, concrete paving will prevent mud holes. In higher rainfall areas (over 20 in. annually) the entire pen can be paved.

SHELTER In areas subject to cold winter winds where natural shelter is insufficient, porous windbreak fences (20% open) give the best protection. In regions of heavy snow accumulation, add a snow fence about 150 ft upwind from a solid windbreak fence; this leaves enough space between the fences for a snow trap.

Protection of the resting area from rain and snow can be provided by an open-end barn, or an open-front shed with a roof that slopes away from the opening. In most areas these openings should face south for protection from winter winds and to get the most benefit from the winter sun.

VENTILATION Buildings for beef cattle must be adequately ventilated to prevent the accumulation of heat and moisture. Eave and ridge openings are recommended for air movement in open-front buildings. If the same buildings are to be used as summer sunshades, provide hinged panels, adjustable curtains or large doors in the back wall.

FEEDING Feeders should be placed high enough so that lot drainage is away from the feeding area. Concrete aprons are recommended along the feeder; they should be at least as wide as the scraper and wheels of the tractor used for scraping, and sloped at least 4% away from the bunks. Build a step 4 to 6 in. high and 12 to... 16 in. wide next to the bunk. If possible, run bunks in a north-south direction so that no part of the feeding area is permanently shaded from the sun. This helps to reduce build-up of frozen manure in the shade of the bunk.

RUNOFF CONTROL Runoff from cattle lots and manure storage areas must not be permitted to enter any watercourse. Diversion banks or ditches may be needed to prevent 'clean' runoff from surrounding fields and roadways from entering the cattle lots. Also, settling and retention basins are usually required to trap and hold runoff from the lots during spring thaw and heavy rains.



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.

