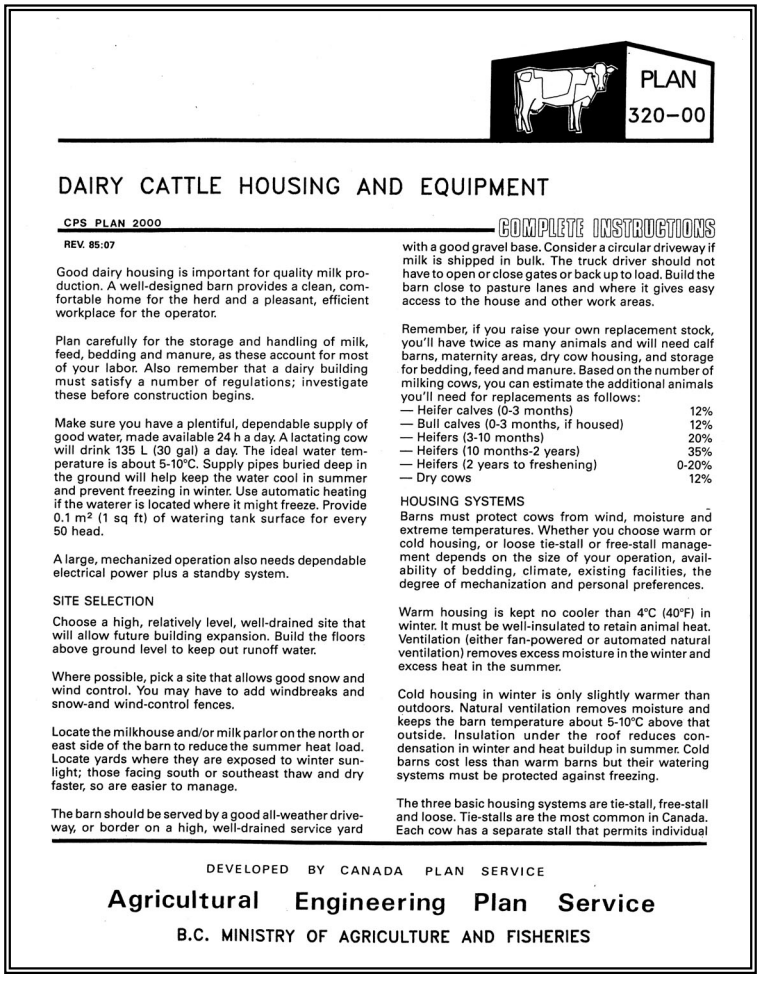
Farm Structures
FACTSHEET

BRITISH COLUMBIA
Ministry of Agriculture, Food and Fisheries

Order No. 320.000-4
CPS: 2000
July 1985

DAIRY CATTLE HOUSING AND EQUIPMENT



PLAN 320–00

DAIRY CATTLE HOUSING AND EQUIPMENT

CPS PLAN 2000 — COMPLETE INSTRUCTIONS

REV. 85:07

Good dairy housing is important for quality milk production. A well-designed barn provides a clean, comfortable home for the herd and a pleasant, efficient workplace for the operator.

Plan carefully for the storage and handling of milk, feed, bedding and manure, as these account for most of your labor. Also remember that a dairy building must satisfy a number of regulations; investigate these before construction begins.

Make sure you have a plentiful, dependable supply of good water, made available 24 h a day. A lactating cow will drink 135 L (30 gal) a day. The ideal water temperature is about 5-10°C. Supply pipes buried deep in the ground will help keep the water cool in summer and prevent freezing in winter. Use automatic heating if the waterer is located where it might freeze. Provide 0.1 m^2 (1 sq ft) of watering tank surface for every 50 head.

A large, mechanized operation also needs dependable electrical power plus a standby system.

SITE SELECTION

Choose a high, relatively level, well-drained site that will allow future building expansion. Build the floors above ground level to keep out runoff water.

Where possible, pick a site that allows good snow and wind control. You may have to add windbreaks and snow-and wind-control fences.

Locate the milkhouse and/or milk parlor on the north or east side of the barn to reduce the summer heat load. Locate yards where they are exposed to winter sunlight; those facing south or southeast thaw and dry faster, so are easier to manage.

The barn should be served by a good all-weather driveway, or border on a high, well-drained service yard with a good gravel base. Consider a circular driveway if milk is shipped in bulk. The truck driver should not have to open or close gates or back up to load. Build the barn close to pasture lanes and where it gives easy access to the house and other work areas.

Remember, if you raise your own replacement stock, you'll have twice as many animals and will need calf barns, maternity areas, dry cow housing, and storage for bedding, feed and manure. Based on the number of milking cows, you can estimate the additional animals you'll need for replacements as follows:

— Heifer calves (0-3 months)	12%
— Bull calves (0-3 months, if housed)	12%
— Heifers (3-10 months)	20%
— Heifers (10 months-2 years)	35%
— Heifers (2 years to freshening)	0-20%
— Dry cows	12%

HOUSING SYSTEMS

Barns must protect cows from wind, moisture and extreme temperatures. Whether you choose warm or cold housing, or loose tie-stall or free-stall management depends on the size of your operation, availability of bedding, climate, existing facilities, the degree of mechanization and personal preferences.

Warm housing is kept no cooler than 4°C (40°F) in winter. It must be well-insulated to retain animal heat. Ventilation (either fan-powered or automated natural ventilation) removes excess moisture in the winter and excess heat in the summer.

Cold housing in winter is only slightly warmer than outdoors. Natural ventilation removes moisture and keeps the barn temperature about 5-10°C above that outside. Insulation under the roof reduces condensation in winter and heat buildup in summer. Cold barns cost less than warm barns but their watering systems must be protected against freezing.

The three basic housing systems are tie-stall, free-stall and loose. Tie-stalls are the most common in Canada. Each cow has a separate stall that permits individual

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