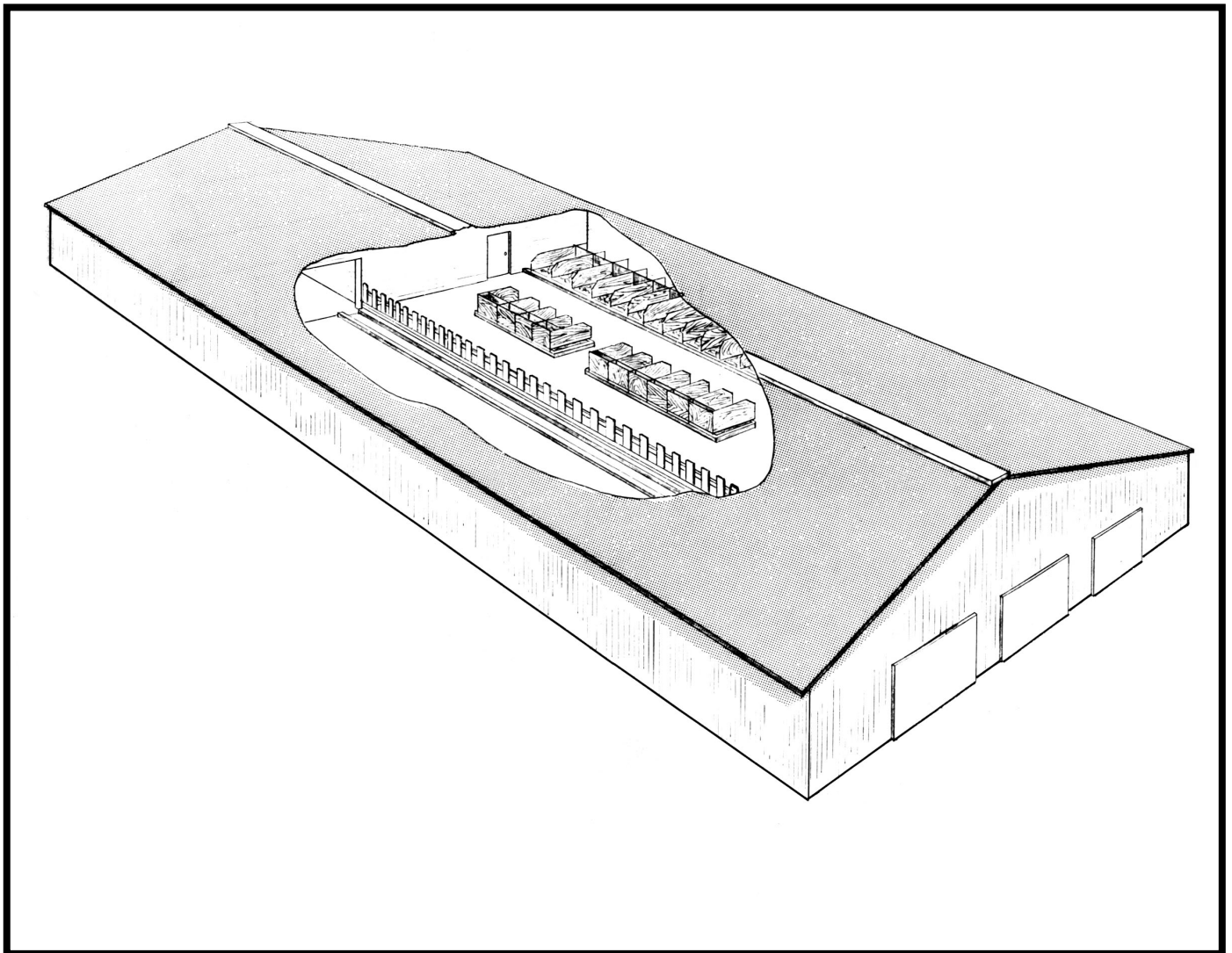


CALF AND HEIFER BUILDING - 100 COW DAIRY OPERATION



CALF & HEIFER BUILDING 100 COW DAIRY OPERATION

This plan gives details for a building designed to house the replacement stock for a 100 cow milking herd. The plan consists of a 56' x 165' clear span building. Calves 3 months and older are housed in two rows free stalls on one side of a drive through feed alley. Calves and heifers are separated into 4 groups according to age. Space is provided for on-the-ground hay and bedding storage on the other side of the drive through feed alley. One end of the barn serves as a maternity area and a separate section is provided for young calves 0-3 months.

FEEDING SYSTEM

The main feature of this barn is the drive through feed alley. This allows all types of feed (greenchop, silage, chopped hay, hay cubes and concentrates) to be delivered to the young stock with a self-unloading power box in amounts desired. A feed saving tombstone feeding fence separates the feed alley from the drive through alley.

A further advantage is the elimination of expensive, often troublesome feeding conveyors. Feed storage can also be located away from the main housing structure providing more flexibility in site selection.

VENTILATION

The portion of the building housing the calves 3 months and older is designed as a relatively cold, modified

environment building. Temperatures will be only 2° - 10°C warmer than outside temperature during the winter months.

Air changes in the building must rely on natural air convection. Cool air enters the building through a slot under the eaves. As the air warms slightly, moisture is picked up and the warm air rises to be exhausted through a continuous slot in the roof ridge.

The open eave and open ridge ventilation system can be supplemented by hinged panels which extend continuously along each side wall of the building and by large sliding doors near the corners of the building on warm days.

The young calf section is totally enclosed, insulated and power ventilated.

MANURE HANDLING

Manure is scraped from the cow alleys by means of a tractor mounted scraper or a mechanical scraper. Manure can then be scraped, conveyed or pumped into the manure storage structure.

Sufficient manure storage should be provided to eliminate spreading manure on snow, frozen ground, fields with high water table, or sensitive crops. A minimum of 90 days storage is recommended.