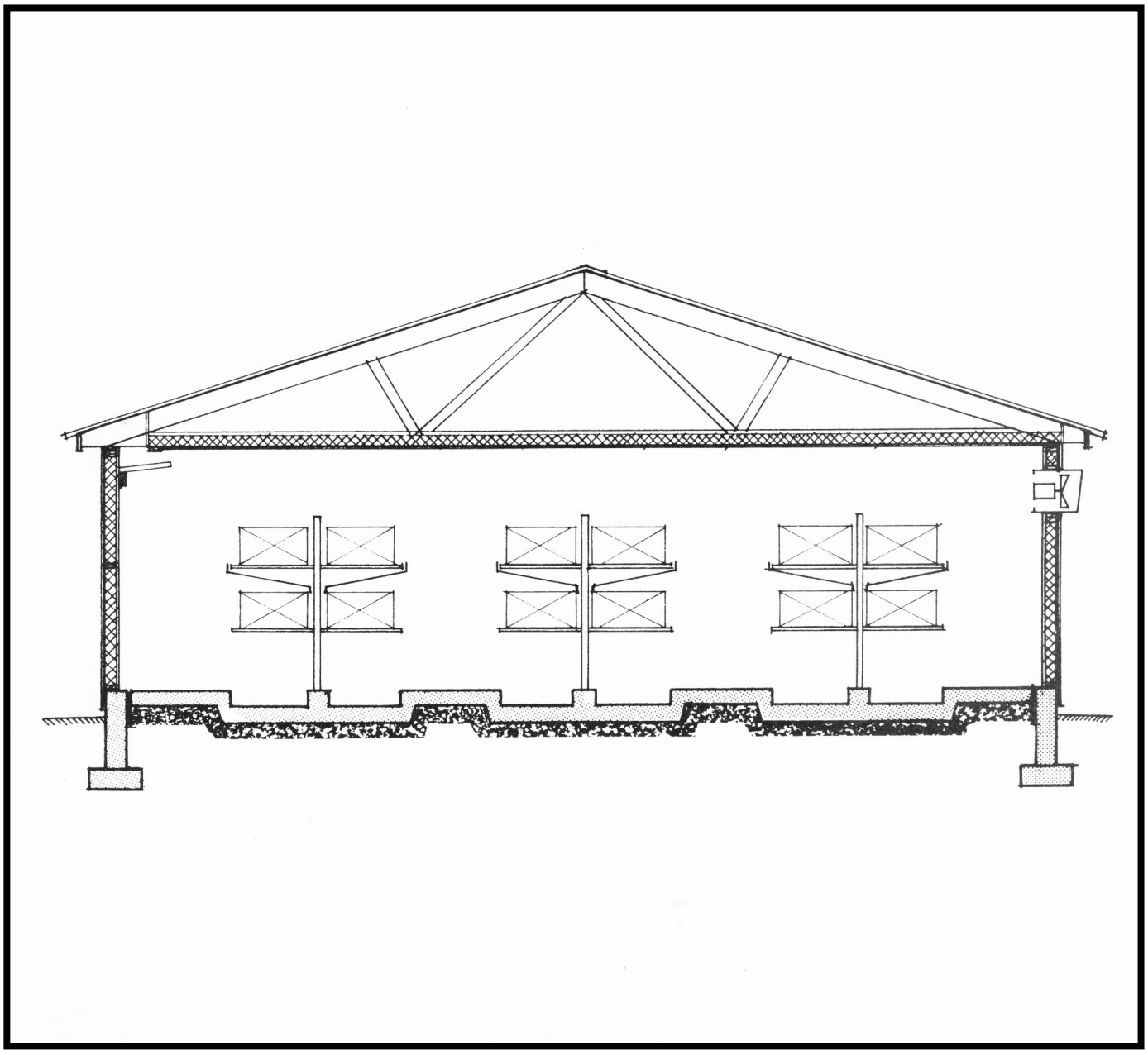
240 DOE RABBITRY



DEVELOPED BY CANADA PLAN SERVICE

373-61

240 DOE RABBITRY

CPS
PLAN Q-8248 NEW 84:02
(ALBERTA PLAN A-8242)

This is an insulated frame structure for caged rabbit production. The 9.6 m x 36.0 m building has one large production room, plus six small rooms that can be used for breeding bucks, quarantine, repair and sanitizing cages, office, boiler room and feed area. This leaflet provides essential design information, but does not attempt to cover all aspects of rabbit production.

Several variations on caged rabbit housing can affect building design and layout. This plan details one of the more popular systems. The building could be wider for more rows of cages, and though cages can be stacked three high, this is not recommended. For disease control smaller units for about 200 does, like this, are preferred.

PRODUCTION UNIT This contains 240 large cages in six rows, two tiers high. Cage details are provided. The 1200 mm wide cages are divided into smaller section for nursing, and a larger section where the litter is moved at weaning age (4-5 weeks). Here they are fed to market at 10-12 weeks, while the doe has her next litter beside them. A metal nesting box, with wood floor, is placed in the nursery cage to prevent chilling of baby bunnies (another possible system is to provide a separate growing room, but there are advantages to keeping the young bunnies by their mother).

HEATING AND VENTILATION Ideal conditions are 15-18^{o}C and 60-70% RH. Try to avoid sudden temperature changes and strange noises. In hot weather, temperatures above 25^{o}C may mean some drop in production. Minimum winter ventilation of 500-800 L/s provides three to four air changes per hour to control moisture and ammonia. The ventilation is increased progressively by thermostat control to a summer maximum of 20 air changes per hour. An adjustable air inlet brings air from the attic along one side of the room. It is important to adjust the inlet baffle to maintain air flow across the ceiling and avoid drafts. During hot weather the inlet baffle can be hung to discharge air across both the ceiling and floor.
In cold winter weather, considerable supplemental heat input is required, since fur-coated bunnies do not give off much heat. A hot water system is best, with rows of black steel radiant pipe, and zone controls for each room. Fur in the air tends to clog other types of systems. The system is designed to provide adequate heat with a minimum ventilation rate; set controls so that the heat is shut off when the 'step 2' ventilation fans are activated (an interlocked control can do this best; see plan 9701).

BUCK SECTION Breeding bucks are housed in a separate room (some keep them in the growing section). Allow one buck to 10-15 does. Bucks become temporarily sterile if the temperature is above 27-30^{0}C for more than 3 days. The ventilation system allows for evaporative cooling or extra ventilation of the buck room in hot weather.

WASTE HANDLING Waste can be handled either dry or liquid. Dropping trays below the top cages require regular scraping. Floor trenches can be flushed (or scraped, which is better as humidity is reduced) to a cross conveyor or trench. Some water may be added for conveying to long-term storage outside the barn. To calculate manure storage required, allow 4.5L/(doe.day) which includes the fryer rabbits and 30% for dilution water. For about 6 months' manure storage, 240 does x 4.5L x 180 days = 200 m^3.

Another manure-handling option is to use one of the belt systems designed for poultry cages. With this, manure can be taken out as often as desired, a practice which vastly improves the ventilation.

FEED, WATER, LIGHT Hoppers for pelleted feed are provided at each cage. Filtered and chlorinated water supplied to nipple drinkers from gravity tanks allows for easy medication. Lighting details are shown on the plan. Timers and dimmers should provide light 16 h/day, and should dim the lights at night in the production room.

DISEASE CONTROL This is the largest single factor in rabbit production. A quarantine room sized for 10% of the herd aids in disease control a handy work area for repairing and sanitizing cages is essential.