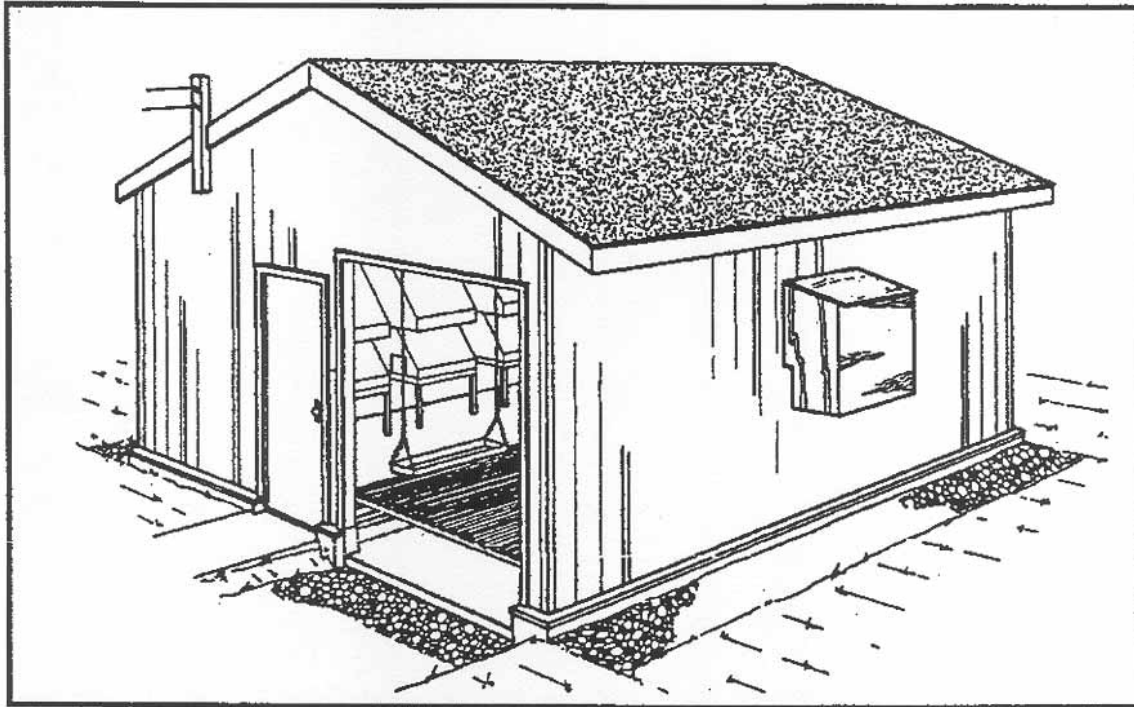




## 300 HEN LAYING HOUSE

REV 1998



This is a detailed plan for a building to house a small poultry flock on a part litter, part slatted floor system. The building is designed for a small laying flock of up to 300 birds, but it is also suitable for broiler or roaster chickens. The building is a simple truss rafter frame structure, about the size of a two-car garage package. Alternatively, a simpler shed roof or pole frame building can be constructed; both styles are shown on the plan.

Detailed plans are on the following page. Be sure to read the management information on the back page. Small flock producers should check the regulations regarding sale of operation allowed under poultry marketing legislation in your area.



The Canada Plan service prepares detailed plans showing how to construct modern farm buildings, components or equipment

This leaflet gives complete details and management information for one such plan. To obtain another copy of this leaflet plan, contact your provincial agricultural engineer or agricultural

**PLAN 5255**  
300 HEN LAYING HOUSE

This is a detailed plan for a building to house a small poultry flock on a part litter scratch area, and slatted roosting floor. The building is insulated wood frame construction, 6.0 x 7.4 m (20 x 24 ft), with a concrete foundation and floor. Insulated square pole frame is also a good building alternative. It has an optional large door and slatted roost platform that is removable for manure clean-out by a small tractor loader.

Automatic float-controlled waterers hang above the roosting area. Birds are fed by round metal tube feeder or homemade wood feeders, manually filled.

The feeders hang over the bedded scratch area. Roll-away community nests are fixed along the wall opposite the roosts. Obtain Plan 5015, "Nests".

#### Ventilation Systems

Adjustable ceiling air inlets near one side wall and two exhaust fans in the opposite wall give controlled ventilation. The inlets may be made manually adjustable or with counterweights for automatic opening (plan M-9715). A variety of commercial inlets are also available. All exterior air inlets should be coarse-screened to keep out rodents and birds.

A two-fan system is preferred, one to provide a set mount of fresh air for coldest weather, and the second a variable rate for temperature control. The small single speed fan is controlled by a switch; it runs continuously, moving about 100 L/s (200 cfm) of air for winter ventilation and moisture removal.

The two-speed or variable speed fan is controlled by a thermostat set to start at slow speed when the barn warms up to 20°C, and to switch to high speed when it reaches 22°C, to provide cooling. On low speed it should move about 190 L/s (400 cfm), and on high speed 660 L/s (1400 cfm). Together, the two fans

provide up to 850 L/s (1800 cfm) for maximum summer ventilation.

A 6 kW (20,000 BTU/h) unit heater provides supplementary heat to help provide adequate ventilation to keep the litter dry in the coldest winter weather. It is important that the heater control be interlocked with the ventilation system so these are not working against each other.

Controls should be located near the centre of the room, 2 ft from the ceiling. Electrical services should be approved non-metallic, surface mounded. Fixtures and electrical boxes should be approved for damp locations, preferably of the rigid plastic type.

For more detailed references on ventilation see the following CPS Leaflets:

- 9700 Ventilation Principles & Rates
- 9750 Ventilating and Heating Small Rooms

#### Light Control:

Control of lighting, both the intensity and photo-period is desirable for laying houses to keep hens producing during decreasing hours of natural light.

Laying hens exposed to decreasing hours of daylight will go into a moult and quit laying. For this reason, the building should be window-less and light-tight. Lights should be operated on a simple timer to provide about 15 hours of "daylight" per day. Exhaust fans should be equipped with light baffles so they do not admit light during long summer days. These can be made removable.

Another desirable feature is to add a vestibule entrance which provides a cold weather buffer, as well as a small room to store cleaning supplies, eggs or feed supplements.