

## Small-scale poultry keeping – housing layers

### Intensive Livestock Industries Development

#### Introduction

Poultry of all types require housing that will protect them from the wind and rain, as well as the effects of rapid changes in temperature. The house should be dry at all times, and provide good ventilation while being free from draughts. The design and structure of the poultry shed will also have to comply with local government regulations.

Consideration should be given to the person looking after the hens. For example, the nest boxes may be arranged so that the eggs can be collected from outside the shed. Alternatively, an open-topped nest with three or four compartments can be placed just inside the door, so that the eggs can be collected without going into the pen.

The feeder should be easy to fill and contain enough food to allow once-a-week feeding. Drinkers should be leak-proof and easy to clean. The shed itself must also be easy to clean, as regular cleaning and disinfection are good safeguards against the build-up of disease-causing organisms and external parasites, such as mites, lice, fleas and ticks.

#### Deep-litter system

The deep-litter system provides excellent conditions for poultry if properly managed. A 100–150 mm layer of straw, wood shavings or rice hulls is placed on the floor of the shed. Keep the litter at a depth of 150 mm by adding more fresh material when necessary, as the scratching of the birds and

their droppings cause the material to break down into a compost-like material.

The litter must remain dry at all times, and any litter which becomes wet or caked must be removed. The old litter should be cleaned out at the end of each year – it is an excellent garden fertiliser.

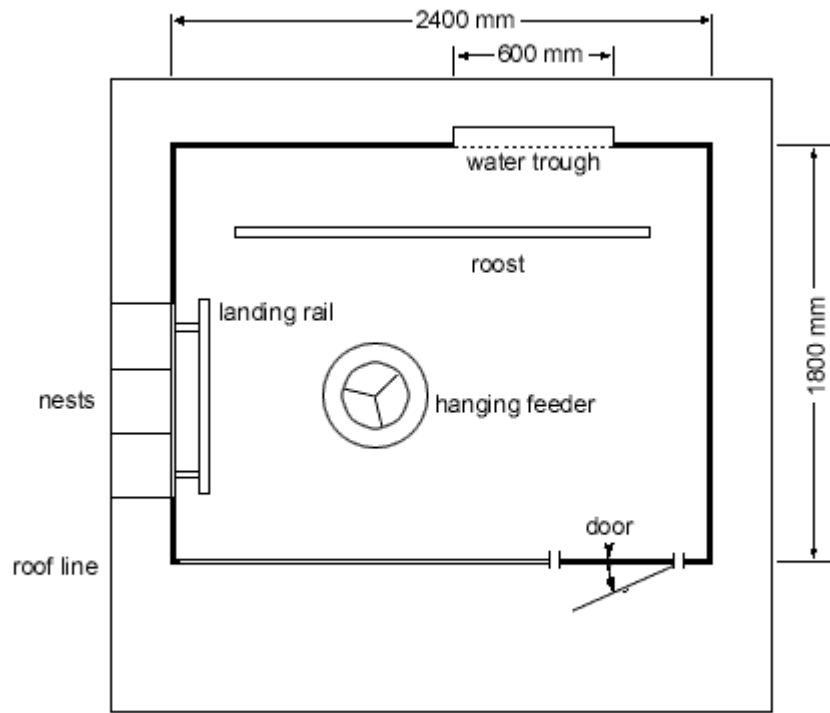
#### The poultry shed

Ideally, the shed should be sited with the front facing north, with the nest boxes positioned on the cooler eastern or southern walls. Sheds can be made out of a variety of materials, such as wood and metal, wood and fibro sheeting, or all metal. The diagrams below (Figures 1–3) show the layout of a small poultry shed.

The shed layout illustrated is suitable for 12 laying hens, or 24 pullets housed to 12 weeks of age, or 30 meat chickens housed to 10 weeks. The design of the shed is not elaborate, but it provides all the features and equipment necessary for the birds' comfort during the year, even if they are kept inside all the time.

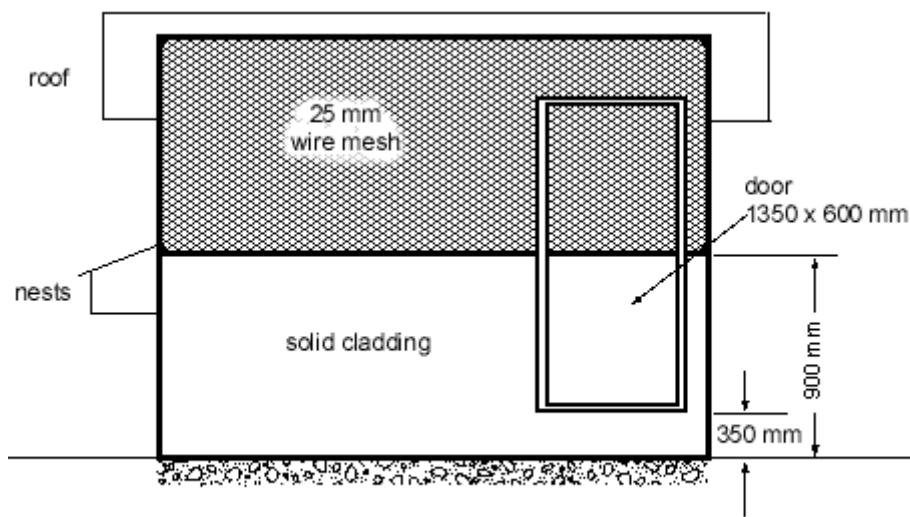
During the summer, it may be necessary to cover the wire mesh front of the pen with hessian on very hot days if the hens are unable to find enough shade. A good investment is the use of insulation to line the underside of the roof, to prevent heat from radiating down and stressing the birds. On very hot days (over 35°C) a garden sprinkler can be used on the roof of the shed.





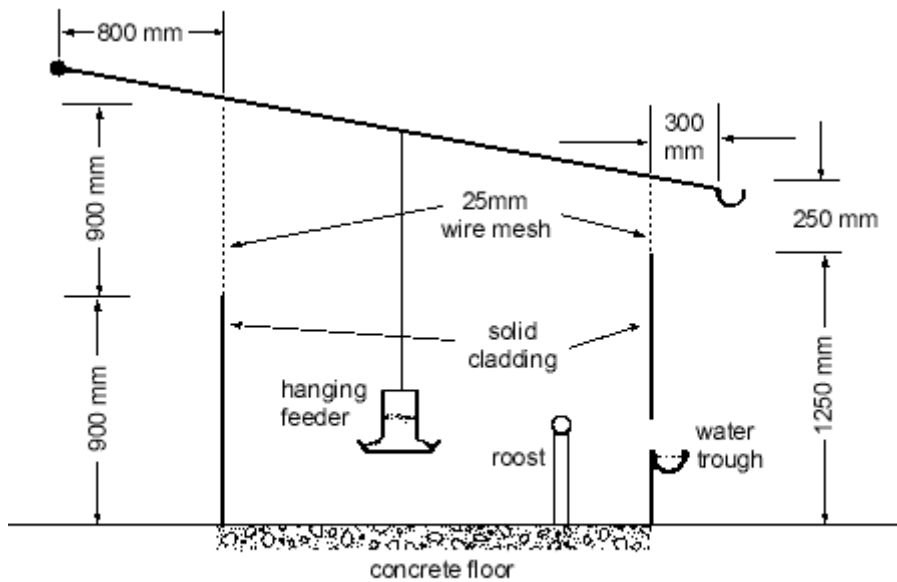
**Plan**

*Figure 1. Small poultry shed plan*



**Front view**

*Figure 2. Small poultry shed – front view*



**Cross section**

*Figure 3. Small poultry shed – cross section*

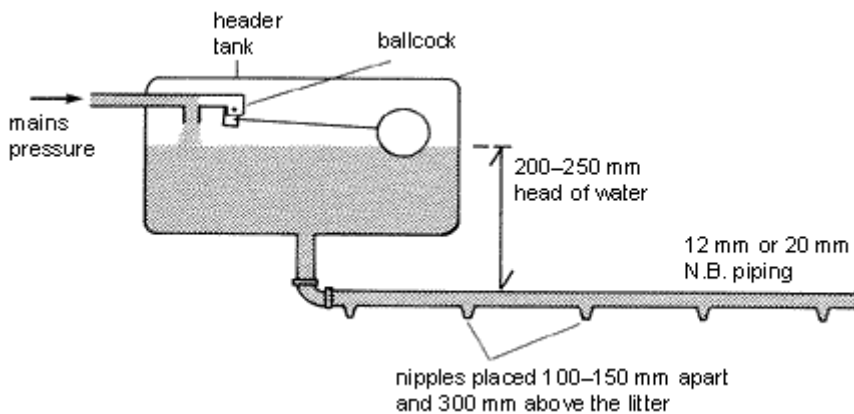
### Mice and rats

Mice and rats can thrive around poultry sheds, so precautions should be taken to discourage them. Ideally, the floors should be made of concrete and the walls and doors should be free from large cracks and holes. Where wooden frames are used, the lower sections should be covered with sheet iron, which should be extended 450 mm into the ground in the absence of concrete floors. Drain outlets should be sheathed in iron or concrete.

In many areas, local government regulations relating to poultry sheds require vermin to be excluded. The sheds should be bird-proofed with wire netting or mesh; 10 mm x 20 mm wire mesh will exclude small wild birds, such as sparrows.

### Equipment

Laying hens need 100 mm of feeding space, 100 mm of drinking space and 180 mm of roosting space per bird.



*Figure 4. A low-pressure drinking system*

## Drinking systems

An automatic water trough or drinking nipple system placed inside (or preferably outside) the shed will save labour and provide a constant supply of fresh water. It is important to provide shade in the summer, to keep the water cool.

A low-pressure drinking system (Figure 4, above) is ideal for adult birds. The water flows through the nipples only when they are touched or pecked. Poultry quickly learn how to operate the system. Drinking nipples are more hygienic and use less water than open troughs.

An automatic circular hanging drinker can also be hung inside the shed. This type of drinker is easy to maintain, and will not leak if correctly adjusted. If leaks are a problem, a wire mesh platform 400 mm x 400 mm placed under the drinker will prevent the birds from reaching the wet litter.

A hanging waterer (Figure 5) is an alternative to drinking nipples, and is more suited to all age groups of birds.

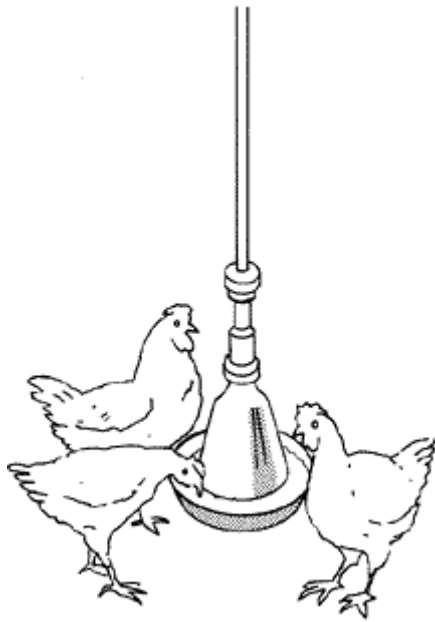


Figure 5. Hanging waterer

## Feeders

One hanging 'tube' feeder (Figure 6) with a pan 400 mm in diameter will provide about 1200 mm of feeding space, enough for 15 hens.

If hanging drinkers and feeders are used, they should be adjusted for height so that the base of the pan is level with the birds' backs. This will minimise water spillage and feed wastage. If young birds are placed in the pen, the height will have to be adjusted as they grow.

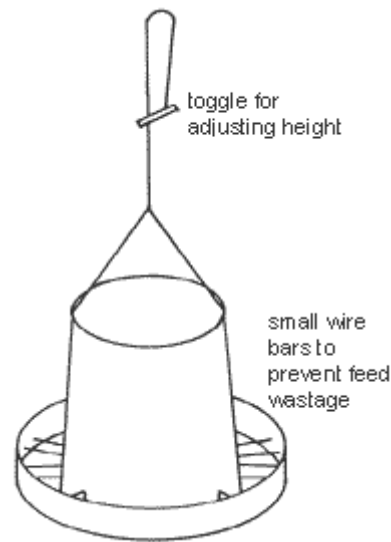


Figure 6. A hanging 'tube' feeder

## Roosts or perches

Roosts or perches are not essential, but are preferred by the hens. They should be made from 75 mm x 50 mm timber, and should be placed 500 mm above the floor and at least 300 mm from the wall.

## Nest boxes

A nest box (Figure 7) should provide one compartment (250 mm high, 300 mm wide and 300 mm deep) for every five or six birds. Nest boxes may be placed about 600 mm above the floor and fitted with a landing platform or perch for the birds to land on before entering the nest.

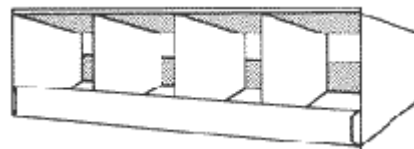


Figure 7. Nest box

If a wire grille platform is used, this can be hinged to form a door, to keep the hens out of the nests during the night. This will prevent the nest litter from becoming fouled and help keep the eggs clean. The platform could be raised in the late afternoon and lowered after the birds have gone to roost. If the hens are allowed to roost in the nests, it will take about three weeks to break the habit.

The nests should be as dark as possible, and should contain clean straw, wood shavings or rice hulls.

The nest can be set lower than 600 mm, or may even be at floor level. This is preferable for fowls of heavy breeds, which are not inclined to lay their eggs in high nests. If you place a couple of plastic eggs in the nests before your pullets start to lay, it will encourage them to lay in the nests and not on the floor.

There are several suppliers of poultry equipment where nests, automatic water drinkers, and feed hoppers may be purchased. Visit their showrooms and inspect such equipment before finally designing the poultry shed.

## Acknowledgement

This Primefact was adapted from an earlier publication of the Victorian Department of Agriculture: Agnote 1539/81, *Housing a small flock of laying hens*.

---

© State of New South Wales through NSW Department of Primary Industries 2007. You may copy, distribute and otherwise freely deal with this publication for any purpose, provided that you attribute NSW Department of Primary Industries as the owner.

ISSN 1832-6668

Replaces Agfact A5.7.9 (third edition)

Check for updates of this Primefact at:

[www.dpi.nsw.gov.au/primefacts](http://www.dpi.nsw.gov.au/primefacts)

Disclaimer: The information contained in this publication is based on knowledge and understanding at the time of writing (November 2007). However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of New South Wales Department of Primary Industries or the user's independent adviser.

Recognising that some of the information in this document is provided by third parties, the State of New South Wales, the author and the publisher take no responsibility for the accuracy, currency, reliability and correctness of any information included in the document provided by third parties.

Job number 7735