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Poultry breeds must be conserved—an ideal small unit

by R. H. Morris,
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The Department of Agriculture is concerned at the rapid disappearance of some poultry breeds and strains in recent years. This trend has resulted from the disposal of flocks previously held by commercial poultry breeders and fanciers. These breeds could be valuable in the future in breeding new stock to suit unforeseen commercial needs.

For example, there is a possibility that bantams could be used to help develop mini fowls which require less feed than larger fowls, or particular breeds could be used to achieve a certain standard of egg shell strength and colour.

An example in 1958 was the contribution by poultry fanciers in supplying much of the foundation stock for the Australian broiler industry. Commercial breeders began crossing breeds such as Light Sussex, New Hampshire, White Cornish, various breeds of Game fowls, Rhode Island Red, Barred Plymouth Rock, Australorp, White Leghorn and other breeds which had been kept by small breeders for many years.

From these breeds, the broiler industry has grown to produce about 150 million meat chickens a year, worth $170 million to the growers alone.

Already several breeds of fowls, ducks, turkeys and geese are at such low numbers, that they may soon be un procurable in Australia. Dorking and Barnevelder fowls, and Buff Orpington and Aylesbury ducks are examples.

One way to stop the trend of disappearance of poultry breeds is for interested people to maintain a breeding flock of pure-bred poultry, making the progeny available to others. The Department of Agriculture maintains a list of the various breeds which owners of pure-bred poultry hold.

This article describes a small unit suitable for housing breeding fowls. The unit is based on designs developed by the Department of Agriculture and used successfully at the Woodlands Poultry Research Station for about 20 years.

Several units can be used for different breeds of fowl, or one can be used for mature birds, and another to brood and rear replacement chickens.

The building

The building is all metal, and a skilled worker could make it using some components of a prefabricated garden shed as a basis. Alternatively, a wooden frame could be clad with asbestos.

The shed is firmly mounted on several courses of bricks, and has an impervious floor, as shown in the plans.

The building should face east or north-east so that the back of the shed is towards the strong westerly rain-bearing winter winds. Also, morning sunlight can penetrate the front of the shed, so helping to keep the litter dry, and encouraging dust bathing by the fowls.

The roof overhang at the front of the shed is 61 cm wide, enough to prevent rain dampening the litter, and protecting the attendant from the weather.

The shed is well ventilated with provision for cross ventilation at bird level. In addition, some ventilation is provided high up on the back wall. In coastal regions, cool sea breezes can enter the shed.

Breeds such as the New Hampshire have been useful in developing nucleus parent breeding stock in the Australian broiler industry. The poultry industry may require such breeds again at any time, and small units such as this could supply pure-bred stock.
All metal pen for 10 to 13 fowls. Outside yard and perches optional.
during the summer through the grill through which the birds drink.

A deciduous shade tree should be located close to the shed on the northern side. The Cape Lilac is a suitable quick growing tree.

Each pen measures 2.3 m by 1.5 m and will comfortably accommodate 10 to 13 adult fowls intensively. By providing an outside running area, up to 15 adult birds can be housed in each pen. For chickens, smaller watering and feeding facilities are required.

To produce fertile eggs, up to 12 females may be run with each sire in the case of light breeds, and 10 hens in the case of heavy breeds.

The fertility of individual males can vary considerably. It is important for the male to fertilise practically every egg laid, so a fertility test should be made early in the season by incubating a small number of eggs. Alternatively, two males to each pen of breeding fowls may be necessary.

The unit is neat, durable, hygienic, moderately-priced and airy but weatherproof. It is child and animal proof and, as the fowls are more difficult to collect and the fowls may be tempted to break and eat them.

Almost all eggs will be laid in the nest if the fowls are taught to use the nest. This means housing the birds before the onset of lay so that they become accustomed to the nest box and never develop the habit of laying on the floor.

**Design**

The metal shed itself has a flat roof but a fall in the roofline of 5 cm has been achieved in the plan by making the brick upstand along the front 5 cm higher than at the rear. The metal shed itself has a slight tilt towards the back.

The brick upstand consists of 2 layers of bricks laid on their edge. If new solid bricks are used, the bricks do not have to be faced.

However, if new bricks with holes in them or secondhand bricks are used these may require facing inside and out with a cement render, to improve the appearance and contain the litter.

The bricks should not be laid flat as three courses will then be required. This will increase the cost and the birds will be able to roost on the wider ledge where their manure will collect and quickly corrode the metal side of the shed.

The brick floor, raised several centimetres above ground level and covered with a slurry of cement, prevents ground moisture from entering the shed, isolates the litter from the ground, and prevents stickfast fleas from breeding. The eggs of the flea cannot enter the soil through the impervious floor. Cheap secondhand bricks are ideal for the floor.

The several courses of bricks are ideal for containing the "deep litter" on which the birds sleep as they keep the litter comparatively dry. The birds also use the litter as a dust bath.

The dry litter does not have an objectionable smell, is unsuitable for fly breeding, which is an important consideration, and supplies some nourishment to the fowls when accidentally or deliberately eaten by them.

**Maintenance**

Once every three or four months the birds can be lightly sprayed with a solution of malsidon (0.5 per cent. strength) to control lice.

Alternatively householders who are not adversely affected by dusty conditions may prefer to use malsidon dust (2 to 4 per cent.) sprinkled over the litter.

Once a year the shed itself should be thoroughly sprayed with malsidon solution (3 per cent. strength) to control poultry insect pests.

Remove the birds from the pen during annual spraying, and do not spray the food or drinking water.

Initially about 7 to 8 cm of sawdust or similar material is placed on the cement floor and the poultry droppings are allowed to accumulate indefinitely (at least nine months) with small amounts being removed as a fertiliser, when convenient. Periodically, small amounts of sawdust can be added, as well as dry lawn clippings.

The birds drink through a grid in which the apertures between the rods are just 6 cm wide. An adjustable outside cover protects the drinking area from the weather.

The adult birds drink and eat by standing on the litter, so no special steps are required.

The layers gain access to the nest through a square opening, centrally located on the side of the nest facing into the pen. This opening with rolled edges to prevent the birds from cutting themselves, is 19 cm across and the bottom edge is 7.5 cm from the floor of the nest.

The eggs are collected from outside, through a 30 cm square opening. A door, hinged at the bottom, covers this opening. For security reasons both the nest and pen doors can be locked.

**Shire approval**

Anyone intending to establish a poultry unit should first obtain their local authority's approval of the construction and siting of the poultry shed, and the number of birds which may be kept.