

Geese

Robert W. ROBARTSON,

Project Manager, Southern Highlands District

At present there is no commercial production of geese in the Territory, but there are definite possibilities. From a few weeks old, geese can live entirely on grass, so they would be suitable for most of the Territory. An acre of good land will graze up to forty geese, and the production could be as much as \$500 per acre per year. This is allowing for a survival rate of only four goslings per goose per year, selling at \$5 per head.

GEESE live longer than other forms of poultry. The female can be used for breeding until she is fifteen years old. Geese are more intelligent, grow faster and are hardier than fowls, turkeys or ducks.

Three breeds of geese seem to offer the best possibilities for the Territory. They are Toulouse, Embden and Chinese.

1. *Toulouse* are a heavy breed of goose originating in France. The weight is 30 lb for the gander and 20 lb for the goose.

2. *Embden* comes from Germany, and is slightly lighter than the Toulouse. It is considered the best bird for meat. The weight is 18 to 20 lb for the gander and 16 to 18 lb for the goose.

3. *Chinese* geese can be white or brown, although only the brown is known in Australia. This breed seems to offer the best prospects of surviving in the tropical climate.

Housing

Geese do not need special housing as long as they have shelter from rain and sun. If there are no trees for shade, a kunai lean-to can be provided. It is worthwhile spending some time and effort on providing satisfactory housing, otherwise the geese tend to make their nests and lay their eggs outside, and the eggs may be lost to the owner.

Stock Selection

Breeding stock should be chosen on their expected ability for meat production, egg size and number of eggs produced per season. Stock for breeding purposes should be selected from second year eggs, as it has been found that fertility and hatchability are lower for first year eggs.

Handling

Geese should always be caught by the neck, as the legs are easily broken. Catching geese can be very difficult, and can cause injury to the catcher. The birds have powerful wings, and can strike hard. They can also inflict nasty scratches with their feet. The safest way to catch a goose is to use a hooked wire.

Mating

Geese will select their mates from about 15 weeks of age. If flock mating is allowed, there is the danger of brother and sister attachments; this inbreeding gives weak offspring resulting in a higher mortality rate. It is better, therefore, to separate the geese from the ganders as early as possible so that no attachments can develop before those arranged by the owner.

While the geese and gander are separated, it is advisable to house the gander in a small cage where he can keep an eye on his brood. If selected birds are put together and their behaviour watched for a few weeks, it will soon be apparent if the members of the group are compatible. This will be especially apparent at feeding time.

At times a gander shows a preference for one or two of his mates. This can indicate that mating will not be general. To test a gander's fondness of the females, it is advisable to remove one female at a time. If the gander shows indifference on the removal of one of the birds, it is almost certain that the gander will not mate with this female. Hence there will be fewer fertile eggs.

It is usual practice in Australia to mate three females to each gander.



Plate I.—Geese on pasture

Natural Incubation

The heavier breeds of Toulouse and Embden have not given any indication yet that they will be of any importance in the future of the industry here in the Territory. Toulouse, although few in number, have not bred successfully. Embden have laid a few eggs but appear to be just as disappointing as Toulouse.

If eggs are kept prior to setting, they should be kept in cool conditions (50 to 60° F.) and 60 to 70 per cent relative humidity. They should be turned over regularly, and should not be kept longer than seven days.

In Australia, it is common practice to use muscovy ducks for incubation, but it has been found here that local native hens are better as they tend to sit tighter. Geese themselves will cover up to 16 eggs (as against the hen's coverage of four) but it is not advisable to allow a goose to lay and then brood her own eggs. Goose eggs lose their hatching potential quickly, so they should be removed and given to other birds to incubate.

Goose eggs need higher humidity to incubate them than other eggs. If the humidity is not correct in the nest when incubation is starting the embryo will die.

Artificial Incubation

The artificial incubation of eggs is possible for the entire period of incubation if temperature and humidity are carefully controlled. Temperature should be 99½° F. with relative humidity 65 to 70 per cent for the first 26 days, and 75 to 80 per cent for the remainder. Eggs should be turned over 3 times daily up to 26 days. For the inexperienced owner, however, it is safer to start the eggs under a hen or muscovy duck for a fortnight, before transfer to the incubator. By exchanging eggs and finishing them in the incubator, the one bird can be used to start three or four times the quantity of eggs that she would normally incubate.

It has been found that eggs incubated in a hot air incubator need sprinkling with warm water three times per day, and from the twenty-fourth day they can be immersed in warm water for about a minute each day. This can be kept up until the eggs pip.

Brooding

Goslings are possibly the easiest of the poultry breeds to brood. They can be brooded artificially under a brooder or naturally by

hen, duck or goose. If the mother goose is used for brooding, there is always the possibility of the goose injuring the goslings with her big feet and extra weight.

Goslings require some shade, and must have a dry place to sleep. Until their legs become strong, they should be kept in a confined area, preferably grassed, as they will soon begin to graze. At the age of four to five days they will begin pulling at growing grass and weeds.

Feeding and Watering

From one day old, goslings should be fed a little green feed. Finely chopped lettuce, or milk thistle can be fed four or five times per day. Any soft grasses can be fed, chopped up, but they must be fresh. Any good chicken mixture, preferably starter crumbles, can be fed until the fourth week. If the grazing is good, the chicken food can then be limited to one feed per day.

Goslings are noted for their rapid growth rate and can be ready for killing for the table at twelve weeks. There will be some ganders that are not required for breeding and can be sold for table use. Goslings which are raised for killing should be kept on good grazing and fed with the prepared food three times a day. They should be given enough food to be eaten at the time, with none left over.

Clean fresh water is essential at all stages of growth, and should always be available to the goslings. They should not have enough water to swim in until they are 6 to 8 weeks old. From hatching they should have water only deep enough to get their bills in, and at about a week, water deep enough to get their heads in. This helps to keep the nasal tract clear, and so helps to guard against infection and disease.

If goslings are confined, grit should be provided. Coarse river sand is satisfactory for this.



Plate II.—Hatching in a forced draught incubator



Plate III.—Sex identification by a physical examination for the presence of the bird's penis

Sex Identification

It is difficult to identify the sexes of goslings. The same method as used for identifying chickens can be used, but this is not recommended as the inexperienced person can cause damage to the sexual organs.

With geese of the same age, the gander is generally slightly larger, with a longer neck. The cry of the gander is high, while the cry of the goose is harsh.

If the geese are mating, or the female is laying, it is an easy matter to take note of the goose while she is on the nest. Later she can be caught and marked. This is, however, a time-consuming method.

The best method is a physical examination of the sex organs of mature birds. In the case of a male bird, the penis may be exposed by pressure around the vent. The left hand is placed below the vent, and a slight pressure is directed downwards. With the right hand pressure is brought to bear above the vent, thus exposing the penis if the bird is a gander. It

is best not to attempt such an examination until the birds are at least twenty weeks old.

Import Requirements

Air freighting of goose eggs from suppliers in Australia is the simplest way of obtaining geese, as the mortality rate of day-old goslings is very high. An import permit must first be obtained from:

Chief Quarantine Officer (Animals),
Department of Agriculture, Stock and
Fisheries,
Konedobu.

The eggs must come from an approved hatchery in Australia, where the birds have all been tested by a veterinary surgeon for pulorum disease and have been found to be free from the disease.

Approval to import adult geese will not be granted.

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