







Publication 1524/E

# Managing a small duck flock

This publication will guide the hobbyist or backyard farmer who wishes to keep a small duck flock; it is not intended for largescale commercial operations.

If you are thinking of raising ducks commercially, bear in mind that the market is usually limited to large cities and the demand is not as broad as that for chicken (Ducks are most popular with people of Far Eastern or European background). Before going into production, make sure a market is available and then seek sound advice on developing your enterprise.

## Selecting a breed

Most people who keep ducks raise them for meat because of their rapid growth, hardiness and ease of handling. Rapid growth combined with good egg production make the Pekin the most popular meat breed; other good choices are the Aylesbury and the Muscovy. For egg production, choose the Indian Runner or the Khaki-Campbell. These will lay as well as a good White Leghorn hen. A number of ornamental breeds also make good eating.

## Selecting and caring for breeding stock

Vigorous breeding stock is essential. Select breeders from the earliest hatches of the year, making the initial selection when the birds are about 8 weeks old. Make a final selection before they are placed in the breeder pens.

Breeders should be uniform in size and at the approximate weight range for the breed used. They must have a full breast, deep keel, long back and good width between the legs. In making the selection, try walking the birds for several hundred metres; eliminate those that have difficulty walking at a reasonable speed.

Although breeder ducks are most profitable during their first laying year, they can be used successfully for 4 or 5 years. In backyard flocks, it's better to keep them for several years.

In colder weather, mate no more than five ducks to a drake. In warmer weather, increase the number to eight.

You can identify drakes by their larger size, higher-pitched voices and more erect carriage. Ducks have a distinct "quack"; drakes do not "quack" at all.

In handling ducks, pick them up by the neck rather than by the legs which are easily broken.

Breeder ducks require very little equipment for their care. You can use a shed or colony brooder house if it allows 0.45 m<sup>2</sup> of floor space per bird. Dirt floors are satisfactory if the soil is light

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and sandy, but concrete floors are recommended as they are easily cleaned and are more sanitary.

Since ducks lay most of their eggs in the morning, confine them in the breeder house until noon, so that all eggs will be laid indoors. Provide one nest box for every five ducks and place these on the floor where the ducks have easy access.

You can use any feed or water equipment that is satisfactory for chickens. Water troughs should be designed to keep birds out. Otherwise, the water gets filthy and becomes a possible health hazard.

Breeding ducks should not be too fat when they begin to lay. For this reason, maintain them on a holding ration. Then, about 1 month before the ducks start to lay, feed them a pelleted breeding ration, free-choice.

#### Incubation

Collect eggs from the breeders several times daily. Wash soiled ones in water having a temperature of 43-46°C to which a sanitizing agent has been added. Store the eggs in a cool, moist place at 10-15°C and relative humidity of 70%, until ready to incubate.

Duck eggs may be incubated naturally or artificially. Chickens and some duck breeds are quite adequate for hatching. However, do not use Pekins, Khaki-Campbells or Indian Runners—they are difficult to make broody. If you use chickens to hatch waterfowl, sprinkle the eggs daily with lukewarm water. Muscovy eggs take 35 days to hatch; all others require 28.

Always follow the manufacturer's recommendations when using incubators. In still air machines, the following temperatures are recommended: 38.3°C for the first week; 38.9°C until the 25th day, and 39.4 from the 25th day until the hatch is completed. Never let the temperature rise above 39.4°C.

Turn the eggs frequently (at least four times daily) to increase hatchability.

In still air machines, add moisture by placing a full pan of water below the egg tray. After the first week, sprinkle the eggs once a day with lukewarm water.

Provide a small-to-moderate supply of fresh air up to the 24th day; after that, large amounts are desirable as long as humidity is maintained.

In forced air incubators, the following temperatures are required:

	Temperature	Wet bulb reading
First 3 days	37.5°C	32.2°C
4th to 25th day	37.2°C	29.4°C
25th day on	36.9°C	32.2-33.3°C



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During hatching, open the vents to allow more ventilation but make sure that humidity is maintained.

Candle the eggs on the 10th and 24th days. Remove any that are infertile or contain a dead embryo. These eggs decompose rapidly and may contaminate the incubator.

### **Brooding**

Ducklings can be brooded artificially, or by ducks or hens. If you use hens, confine them and give the ducklings free range as the hens may tire the ducklings by wandering too far.

With artificial brooders, any equipment suitable for chickens is satisfactory for ducklings. Move the ducks to the brooder house about 24 hours after the hatch is completed. It is best to put 100-150 ducklings under each brooder. Maintain the temperature under the brooder at 29.4-32.2°C for the first week, 23.9-26.7°C for the second week, 21.1-23.9°C for the third week, and thereafter at not more than 21.1°C. The length of time that heat is needed depends on the season and the weather.

Keep the ducklings close to the hover with a brooder guard during the first 3 or 4 days until they learn where to get warm. Place 7-10 cm of good litter in the pen. The litter must be kept clean and dry at all times.

If the weather is good, ducklings can run outdoors after 1 week of age. In cold, wet weather, keep them indoors until they are 2 or 3 weeks old. Ducklings need shade in very warm weather and protection in cold, wet weather. Good ventilation and sanitation are necessary at all times. As a rule, do not let ducklings swim until they are 5-6 weeks old.

## **Feeding**

Feed ducklings as soon as they are placed in the brooder house. Use a good duck ration if possible but, if one is not available, use a chicken broiler starter. The birds can be switched to a diet containing about 18% protein at 2 weeks of age and to a 16% protein diet at 5 weeks. The breeder diet should contain about 16% protein and 2% calcium. Use pelleted feed as mash tends to stick in the ducklings' bills and may choke them.

Any feeder suitable for chickens may be used for ducklings. A large cookie pan makes an excellent feeder for the first 2 weeks, thereafter you can use feed troughs or hanging feeders.

Water may be supplied by fountains or automatic waterers. Arrange the waterers so that the ducklings can submerge their bills but cannot climb in to wet their bodies. This lets them drink and clear their nostrils by squirting water through.

Supply grit free-choice to the ducklings at intervals of 1 or 2 months.

Ducklings need light to eat and drink at night. Lighting also helps keep them from becoming frightened — important because of their highly nervous nature.

# Marketing

Most ducks are marketed when 7-8 weeks old. Pekin ducks of a good strain will weigh 2.5-2.9 kg and be relatively free of pinfeathers at this age.

Ducks are killed in the same manner as chickens: the bird is hung by the legs, its throat is slit and it is allowed to bleed thoroughly.

The feathers can be removed dry or by scalding, which simplifies their removal. To scald, dunk the carcasses in water at 60°C. Use a large tub to facilitate the dousing and make sure that the water penetrates through the feathers (adding a detergent helps the water penetrate). Remove the feathers as quickly as possible, but be careful not to tear the skin. Then cool the carcass rapidly to maintain its appearance and prevent spoilage.

### Troubles caused through management

A temporary shortage of drinking water often causes a condition known as "staggers". If the birds feed before the water is replenished, they usually die in a short time.

Cold water can be fatal to overheated ducklings. Therefore, leave water in a warm place until the chill has gone before pouring it into their drinking vessels.

Ducklings cannot tolerate the sun after eating. If natural shade is not available, provide some type of shelter.

Feather eating or quill pulling frequently gives trouble in larger flocks. It is usually caused by crowding too many ducks into too small an area. To solve the problem, debeak the ducks in much the same manner as chickens, removing the horn at the front of the top bill. The same remedy prevents cannibalism in laying flocks.

Ducks are very nervous. If chased vigorously, they go lame, so do not allow animals, especially dogs, to chase them. If this should happen, remove the lame ducks from the flock. They will regain the use of their legs in a week or two.

Ducks are generally more vigorous and less subject to disease than hens. If disease strikes, it is most likely the result of unsanitary surroundings and faulty management or inherent weakness due to breeding.

For more information, contact the poultry branch agrologist of your provincial department of agriculture.

#### SPACE REQUIREMENTS

Age (weeks)	Area/duckling (cm <sup>2</sup> )	Feed space (cm)	Water space (mm)
1-2	900	2.5	12
2-3	1350	2.5	12
3-4	1800	3.7	25
4-5	2250	5.0	25
5-8	2700	5.0	25
8 or more	4500	7.5	37

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