

FACT SHEET

TT:Ag Ext 00:07

by: Usam Stephen, Agricultural Officer I

How to Hatch Duck Eggs the Natural Way

INTRODUCTION

Fertile duck eggs must be incubated in order to hatch. This can be done either:

- naturally (duck sits on them), or
- in an incubator.

Natural incubation:

Natural incubation involves the ducks sitting on the eggs and turning them until they hatch. They must keep the eggs at the recommended temperature and relative humidity during this time.

The main items needed for hatching of duck eggs the natural way are:

- nests for laying and hatching eggs
- fertile eggs
- broody ducks
- a pond or water bath.

NESTS

One of the keys to producing good eggs is to provide a nest before the duck starts to lay. Cleaner eggs will be produced and there will be less egg breakage. Nests should be clean, dry and comfortable and should accommodate only one duck at a time. Provide at least 1 nest for every 5 laying ducks. Number each nest for easy identification.

Make wooden nest boxes sized 0.36 m x 0.36 m x 0.30 m (14"x14"x12"). Clean wood shavings can be used as nesting material (figure 1).



Figure1: Prepared Nest Box with eggs for Hatching

Place nests in a shaded area and protect them from the rain and direct sunlight. Ducks set better in a cool darkened nest.

FERTILE EGGS AND EGG HANDLING

Eggs for hatching may be collected and stored until the ducks become broody. **Do not handle the eggs with dirty hands**, as ducks are very sensitive to foreign odours and may not want to sit on eggs that have not been handled properly. Store eggs in an area that is not prone to drying out.

HOW TO IDENTIFY A BROODY DUCK

Broody ducks (figure 2) should be used for natural incubation. A broody duck may show the following signs:

- it is aggressive and very active
- it hisses loudly and runs wildly
- it sheds its down feathers to line the nest for setting.



Figure2: Broody Duck

INCUBATION

Duck eggs have an incubation period of 28 days (except Muscovy eggs which have an incubation period of 33 - 35 days). The broody duck must maintain the eggs at a temperature of 37.5°C and 75% relative humidity for the first 25 days of incubation; with Muscovy, it should be maintained for 28 days. This is instinctively done by the duck. She bathes in the pond and takes back moisture on her body to the nest.

THE CANDLE TEST

A candle test can be done to determine the status of hatching eggs.

The candle test is done by shining a light through all the eggs to observe the inside of each egg. The test can be done on the 18th day of incubation in all breeds. A dark spot with blood vessels radiating from it near the air space, shows that the **embryo is alive**. A dark spot stuck to the shell membrane means that the **embryo is dead**. **An unfertilized egg** is clear.

Use the candle test to identify unfertilized eggs and those with dead embryos and remove them from the nest.

SANITATION IN THE NEST

Check the nest regularly for discoloured eggs which are signs that the embryos may be dead. Remove them from the nest since they can explode and this can cause bacteria to invade the other eggs and cause death of the embryos.

Ducks can smell the hydrogen sulphide gas (rotten egg smell) within the eggs which is formed when salmonella bacteria have invaded the eggs with dead embryos. They will instinctively push out these eggs before they explode under them.

HUMIDITY FOR HATCHING EGGS

Provide a pond or water bath for ducks. Setting ducks need water to bathe and to provide and maintain the relative humidity needed for incubating and hatching the eggs.

FEEDING AND WATERING

Place feed and water close to the nests. This reduces the time the duck spends out of the nest in search of food and water; leaving the eggs uncovered.

ABANDONED EGGS

Cull any duck that abandons the nest after a few days of setting. Place eggs from the culled duck under other setting ducks to complete the incubation period. Ensure that the eggs do not remain uncovered for long periods of time since this reduces the number that will hatch.

CONCLUSION

A high hatchability may be achieved if you provide proper nesting facilities, fertile eggs and good management during the entire setting period.

"All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, transmitted in any form, or by any means reproduced without permission in writing, of the Ministry of Food Production."

[For further information and advice contact your Extension Officer](#)