

Incubating Eggs

Location

The location of the machine is important to successful operation. A room temperature of 70° to 80° F. is ideal, and fresh air without drafts is necessary. **Be sure no direct sunlight strikes the incubator** and that it sits level.

IMPORTANT: OPERATE INCUBATOR AT 99.5° F.

Regulate the temperature for 99.5° F. setting and be sure it holds this temperature for 2 or 3 hours before putting eggs in the incubator. **(If Turner is to be used, be sure you regulate the incubator with the Turner in the incubator and that the Turner is plugged into electrical outlet.)**

When you put cold eggs in incubator, it can take 3 hours or more for eggs to warm up and temperature to stabilize at the setting you had before adding the eggs. Also, when you open the incubator, it can take up to 2 hours for temperature to stabilize.

Select and Grade the Eggs

The eggs must be fresh and fertile. Don't use eggs over 15 days old. Eggs being saved for hatching should be protected from freezing and high temperatures. Discard any small or poorly shaped eggs and any with cracked or thin, porous shells. Set only eggs that are clean and uniform size. Eggs may be wiped with a damp cloth, but not with soap. To store eggs, keep at temperatures between 40° and 60° F. Let the eggs stay at room temperature 12 hours before incubating.

Scrub out incubator, using a damp cloth and weak ammonia solution on the electrical parts. A clean incubator assures a better hatch rate.

Turning the Eggs

If the incubator is without an automatic turner, make a set schedule for manually turning the eggs. A longer wait of 4 hours between turns may result in a weakened or malformed chick. Turning the eggs 5 times a day is most successful; however, 3 turns a day will produce a partial hatch. Placing an "X" on one side and an "O" on the other side helps keep track of the turns.

White, clear-shelled eggs can be tested on the fourth to tenth day. Dark shelled eggs are difficult to test, and should be tested on the eighth or tenth day. The room should be quite dark to enable you to see clearly. Hold the egg with the large end uppermost to a tester, looking through the side of the egg and slowly turning it in hand.

To make a homemade tester, get a small paper or corrugated box into which you can insert a light bulb attached to a drop cord and then cut a small hole in the top or end of the box. The large end of the egg is to be placed against the small hole and the light will show into the egg enabling you to see whether or not it is fertile. If the eggs are fertile, a small dark spot with a mass of little blood veins extending in all directions will be seen floating inside the egg. This is known as the embryo. If the fertility is not strong, the embryo will have already died, the blood settling away from the embryo toward the edges of the yolk. All such eggs, or any eggs perfectly clear, should be removed from the incubator. These eggs can be boiled hard and used for feeding chicks.

When testing the eggs for fertility, notice very carefully the size of the air space in the large end of the egg. This space is caused by the vaporization of the water of the egg. At the time of the seventh day test, this space should be no larger than a silver 25-cent piece.

The second fertility test should be made on the fourteenth day of incubation. Some of the embryos which looked strong and healthy at the time of the first test may have weakened and died. These and all eggs with "blood rings" or blood spots should be immediately removed, thus preventing the fouling of the air space in the egg chamber from dead eggs. The air space at the time of the fourteenth day's test should be no larger than a silver 50-cent piece. If larger, provide more moisture.

Incubating Eggs (cont)

Moisture

The purpose of supplying moisture in an incubator is to prevent excessive drying out of the natural moisture in the egg. It is impossible to give any set rule relative to supplying moisture. If the incubator is operated in a room where there is considerable natural moisture then it may not be necessary to supply artificial moisture. If operated in a dry climate or in a dry room, moisture will be needed.

SPECIAL NOTICE-Spray Duck and Goose eggs thoroughly with water twice each week and during the last 10 days, spray at least 3 times a week.

Hatching

Three days before total incubation and hatching time, discontinue turning eggs.

If you are using an Automatic Turner, it must be removed from the incubator or eggs moved to a separate incubator for hatching. Do not attempt to hatch eggs while the turner is in the incubator, as the slow turning egg rack could crush the chicks.

Lay eggs on a wire floor with small end pointed slightly down.

Chicks may be removed 24 hours after they start to hatch. Extremely wet chicks should be left in the incubator to dry.

Plan to remove chicks once a day, as every time the incubator is opened, warm moist air escapes.

Opening of the incubator should be kept to a minimum. Avoid chilling of wet chicks.

Some chicks may be late in hatching, so you can leave remaining un-hatched eggs up to 2 days longer.

Expect no more than a 75% hatch.

Total Incubating and Hatching Time

Chicken – 21 days Duck – 28-33 days Goose – 28-30 days Dove – 14 days Quail – 23 days

Brooding

When chicks are removed from the incubator, they must have a place that is warm and dry. A brooder should have one section that is heated, with a temperature of 100° F. (for the first week) and an unheated section for exercise. Feed and water should be partially in heated area. Temperatures should be reduced by 5 degrees each week until it is down to 70° F. Some types of chicks need a temperature around 70° F. until they are full-grown.

A brooder can be made from a small box or aquarium, using a lamp with 40 to 60 watt bulb as the heat source. A red or green bulb affects the chicks' vision the least. The temperature can be regulated by adjusting height of the light and gauged with a thermometer. Continue to lower the heat by raising the light for the next two weeks until the brooder reaches room temperature.

To avoid spraddle-leg condition, use a mesh wire bottom or cover the bottom of the brooder for the first few days with a rough cloth. Replace the cloth or cover with grass or wood shavings, and replace grass or shavings often to protect the feet from soiling with accumulated droppings. Feed the chicks from a shallow jar lid filled with chicken mash starter. The jar lid holding the water should be lined with crinkled aluminum foil to catch the chick's interest. Later, to keep chicks from drowning, fill the bottom of the water fountain or water saucer with marbles.

Incubating Eggs (cont)

Special Points to Remember

1. Do not bother the regulator unless absolutely necessary. The working of the machine may be affected if the regulator is tampered with excessively.
2. If the machine does not heat, carefully investigate and see if you have all connections.
3. Do not over crowd eggs.
4. Keep eggs clean. Perspiration from the hands or any sort of grease is injurious because it clogs the pores of the shell.
5. Clean your incubator after each hatch with clear water. Scrubbing of moisture circles may cause leaks.