Suggestions For Successful Incubation

There are six factors involved in obtaining a successful hatch. They are:

1. Temperature
2. Humidity
3. Ventilation
4. Turning
5. Condition of egg, and
6. Age of egg

Check the thermometer; it is accurate? Read the thermometer correctly; avoid parallax of vision.

In still-air incubators (incubators without a fan moving the air around), place the bulb of the thermometer on a level with the top of the eggs.

Maintain an average temperature of 99 degrees F. for all eggs with the thermometer located as directed.

Temperature fluctuations from 98 degrees F to 101 degrees F are not harmful provided the cycle of fluctuation is not longer than 15 to 20 minutes.

The egg is a special kind of humidistat. The increase in the size of the egg's air space reflects the humidity conditions in the incubator.

The air space should gradually increase in size. If the air space becomes to large too fast, the humidity is low, hence the surface area of the water should be increased. This can be done by adding another pan or using a larger pan or adding water-soaked sponges. It is the amount of surface area of the water, not the volume, that is important.

If the air space is too small, the humidity is high (this is not common) so reduce the surface area of the water. This can be done by using smaller pans.

Provision should be made for fresh air to flow into the incubator and stale air to flow out. The embryos in respiration inspire (take on) oxygen and expire (give off) carbon dioxide.

Turn the eggs a minimum of two times a day, at least 6 hours between turnings.

Eggs can be turned every hour. This is done in commercial hatcheries. Missing a turning, or even a day of turning, will not necessarily kill the embryos, but it does influence the hatch.

Hands should be clean when turning the eggs.

Eggs should be egg shaped, clean, sound, (not checked, cracked or broken), with smooth hard shell and weight between 1.75 and 2.25 oz.

Eggs should be set reasonably soon after being laid. There is a little drop in hatch if chicken eggs are held properly, 55 degrees F with relative humidity of 65%, and set within 10 days of lay. Hatchability drops approximately one percent a day under these conditions. After 10 days hatch is severely reduced and there is little to be expected of eggs set after 21 days. Quail eggs are held the same as chicken eggs and should be set within 7 days of lay.

Three days before the hatch:

1. Remove the eggs from the incubator.
2. Place in egg carton to keep from breaking.
3. Add water to the water pan if needed.
4. Place a clean cloth, an old towel will do, on the egg platform. (This will protect the navels of the chicks.)
5. Remove the eggs from the egg carton and return them to the incubator, placing them on the cloth.
6. Add a water-soaked sponge; DO NOT have it in contact with the towel. Increased humidity is needed at time of hatch.
7. Close the incubator. Do not open except to remove chicks, or to add water to the pan or the sponges.

Some people sprinkle duck and goose eggs or dip them in water. It may help. Do not incubate eggs requiring different incubation periods at the same time in the same incubator.

The average incubation period of birds commonly incubated are:

Japanese Quail	16-1/2 days	Chickens	21 days
Pheasants	24 days	Turkeys	28 days
Ducks	28 days	Geese	28-30 days
Peafowl	28-30 days	Muscoveys	35 days

Candle eggs to determine:

a. Fertility
b. Viability of th embryos
c. Increase in size of air space