

INCUBATING EGGS IN SMALL QUANTITIES

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To hatch a small number of eggs, buy or build an incubator that provides controlled conditions. You might want a model with transparent sides or top so you can watch the hatching. An alternative that is frequently overlooked is natural incubation under a broody hen. Each hen can cover 12 to 14 chicken eggs, 9 to 11 duck eggs, or 4 to 6 goose eggs. General purpose breeds like New Hampshires and Plymouth Rocks make better setters than Leghorns.

INCUBATION PERIODS

Japanese quail - 17-18 days

Chicken - 21 days

Pheasants, Chukar partridge,

Bobwhite and Valley

quail - 24 days

Turkeys, guinea fowl, peafowl,

most ducks - 28 days

Most geese - 30 days

Muscovy ducks, Canadian and

Egyptian geese - 35 days

INCUBATING CONDITIONS

Temperature. Incubators with fans are set at 99½°F to 99¾°F; incubators with gravity ventilation are set at temperatures of 101°F to 103°F as measured at the top of the egg. Lethal temperatures are 103°F in fan-ventilated incubators, and 107°F in gravity-ventilated incubators. To regulate temperature, humidity, etc., follow the manufacturer's directions if available.

Humidity. During incubation, a relative humidity of about 60 percent is satisfactory; at hatching it

should be raised to about 70 percent. Trays of water inside the incubator furnish these humidity levels. In fan-ventilated machines, humidity is measured indirectly but quite accurately by a wet-bulb thermometer (a thermometer with its bulb wrapped in a damp cloth). At 99.5°F dry bulb, a reading of 85°F to 86°F on the wet-bulb thermometer gives the desired humidity. At hatching, the dry-bulb temperature is reduced about 1°F and the wet-bulb temperature is increased to 88°F to 90°F. Low humidity can be a problem in very small incubators; additional moisture is especially necessary if the incubator is opened frequently for turning eggs.

Turning. Eggs must be turned until late in incubation. Chicken eggs, for example, must be turned to the 15th day. For many small incubators, lay eggs on their sides and turn by hand an odd number of times (at least three) per day. A pencil mark on the side of the egg will be a useful guide. Do not rotate the eggs in the same direction each time. A broody hen turns eggs when nesting, but because of their large size, turn goose eggs under a chicken hen by hand.

Ventilation. Your incubator is equipped with vents to permit a slow change of air. Little ventilation is needed when incubation starts; it may be increased gradually as incubation progresses. During hatching, restrict ventilation in order to raise the humidity.

HELPFUL HINTS

Since most eggs sold at the grocery store are infertile, purchase hatching eggs from a breeding farm. Keep them at 50°F to 60°F, if possible. A household refrigerator is too cool for storing hatching eggs, and at 80°F fertile eggs begin to develop in an abnormal manner. Set the eggs before they are 2 weeks old.

Clean your incubator thoroughly and test its operation for a day or more before setting any eggs.

Eggs which are clean when they come from the nest are best for hatching. It is better not to wash eggs, since bacteria on the shell and in the water may easily enter the eggs and cause them to rot.

Cracked eggs spoil easily, seldom hatch, and are best removed from the incubator. If you candle after a week's incubation, infertile eggs and eggs with dead germs can be identified easily and removed from the incubator.

After hatching, leave the young in the incubator for a few hours to dry and fluff out completely.

Small incubators range widely in price depending upon size, construction and features (e.g., automatic egg turning, fan ventilation). When purchasing, consider that low-cost incubators usually have less accurate temperature and humidity controls and often lack a convenient egg-turning arrangement. They usually require close supervision to obtain hatching success.

Manufacturers and Distributors of Incubators Suitable For Hobbyists and Exotic Bird Breeders

Stock incubators suitable for:			
Manufacturers/Distributors	Classroom Demo/ Table-top	Small Scale Poultry ¹ /Game Bird ²	Ratites ³
G.F.Q. Mfg. Company P.O. Box 1552 Savannah, GA 31402 Phone: (912) 236-0651 Fax: (912) 234-9978	X	X	X
Humidaire Incubator Company 217 West Wayne Street P.O. Box 9 New Madison, OH 45346-0009 Phone: (937) 996-3001 Fax: (937) 996-3633	X	X	X
Kuhl Corporation Kuhl Road P.O. Box 26 Flemington, NJ 08822-0026 Phone: (908) 782-5696 Fax: (908) 782-2751	X	X	X
Lyon Electric Company, Inc. 2765 Main Street Chula Vista, CA 91911 Phone: (619) 216-3400 Fax: (619) 216-3434	X	X	X
NASCO 4825 Stoddard Road Modesto, CA 95356-9318 Phone: (209) 545-1600 Fax: (209) 545-1669	X	X	X
Natureform 925 North Ocean Street Jacksonville, FL 32202 Phone: (904) 741-3030 Fax: (904) 741-4209	None	X	X
Petersime Incubator Company 300 North Bridge Street P.O. Box 308 Gettysburg, OH 45328-0308 Phone: (937) 447-2151 Fax: (937) 447-7171	None	X	X
Stromberg's Box 400 Pine River, MN 56474 Phone: (218) 587-2222 Fax: (218) 587-4230	X	X	X

¹Poultry - chicken, turkey, duck, goose

²Game bird - pheasant, quail, partridge

³Ratites - cassoway, emu, ostrich, rhea

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