

Preservation of surplus eggs

There are some interesting methods very commonly found among the poultry man for preserving surplus eggs. The operation is very important in order to run a profitable poultry business. The methods are discussed below:

A. Home preservation

1. *The water glass method*

By this method eggs may be stored safely for as long as 6 months. During the month when eggs are plentiful, carefully select only clean, sound and unwashed eggs which are to be preserved. Sodium silicate or water glass forms a viscous solution in water. When eggs are dipped in this solution, a coating of silica is formed over the shells and their pores are compliantly closed. For the solution, add commercial water-glass in boiled water @ 1 kg in 10 liters. Shake well with a rod. About 15 dozen eggs can be preserved in 10 liters of the solution.

2. *The lime water method*

By this method also eggs can be preserved for nearly 6 months. Add 1 kilo of quick lime to 20 liters of water in an enameled or glazed earthen vessel. Let the solution settle for 10 minutes. Then pour off the super ant liquid which will constitute the lime water for the preservation of eggs. Sediments at the bottom of the solution should never be used.

3. *Oil protested eggs*

By this method eggs are dipped in warm oil generally in coconut oil having colorless, tasteless and in odorous qualities. Oiling should be made as soon as possible after the eggs are laid. In this way the pores of the shell are sealed which prevent evaporation and loss of carbon dioxide, thus maintains good internal quality and prevents weight loss.

4. *Thormostabilization*

This applies to the stabilization of egg quality by heat. Eggs may be thermostabilised by immersing the shell eggs for 15 minutes in water at 54.4⁰ C (130⁰F) or at 60⁰C (140⁰F) for 3 to 5 minutes in water are kept stirred. The process has got the following advantages:

- σ Pasteurizes the eggs (kills bacteria on the egg shell);
- σ Defertilises the eggs (kills the embryo);
- σ Stables the eggs (improves the keeping quality).

B. Commercial Method of preservation

1. *Cold storage (5 to 8 months)*

The temperature of an egg-stores room should be maintained at +0.5⁰C to -0.5⁰C (31⁰ to 33⁰F) being the temperature usually preferred. A relative humidity of 75 to 85 percent is necessary. Too much humidity favors the formation of moulds.

2. *Frozen eggs*

The freezing of the internal contents of eggs is now a common method of preservation especially in developed countries. The eggs are first candled and when they are broken out, the smell and appearance of the contents are noted for any possible defects. The yolk and the white any be frozen separately with addition of 5% glycerin. The egg contents are then freezed in a 30-40 lb., tin at a low temperature range of 10⁰ F to 30⁰ F below zero. The contents are kept at a low temperature until required for use. In case the storage temperature is zero or below, the frozen eggs any be stored with little or no loss of flavor for 12 months or longer.

3. *Dried eggs*

Egg drying is now largely partied in place of freezing. Although the process is more expensive but there is a considerable saving in transport and less need for cold storage. The egg contents are dried at a temperature of 160⁰F and stored under 50⁰F to convert white, the yolk or the whole egg into a fine powder. The whole egg is of use for bakery products, the yolk for flours and the albumen for confectioneries. With the present day, low egg production and unsatisfactory marketing facilities, preservation and storing of eggs by freezing and drying cannot be of immediate interest o us under Indian continent.