(from Storey's Guide to Raising Chickens)

Thermostabilization:

Thermostabilization was regularly practiced by housewives during the late 19th century. Heating destroys most spoilage-causing bacteria on the shell and seals the shell by coagulating a thin layer of albumen just beneath it. When the egg cools, the coagulated albumen sticks to the egg membrane and cannot be seen in the opened egg. Unlike oiling, this method does not affect an egg's foaming properties.

Process eggs the day they are laid. Heat tap water to exactly 130 degrees F (54 degrees C). Use a thermometer, since the temperature is critical--the water must be just warm enough to destroy spoilage organisms but not hot enough to cook the eggs. Place eggs in a wire basket (such as a vegetable steamer or pasta cooker). Submerge the eggs in the water for 15 minutes if they are at room temperature, or 18 minutes if they have been refrigerated. Lift the basket and thoroughly drain and dry the eggs. Thermostabilized eggs will keep for two weeks at 68 degrees F (20 degrees C) and eight months at 34 degrees F (1 degree C).

Thermostabilization and Oiling:

Thermostabilization destroys bacteria and protects albumen quality. Oiling minimizes weight loss due to evaporation and preserves yolk quality. Combining the two improves an egg's keeping qualities compared to either method alone. You can thermostablize eggs and then oil them, or combine the two procedures into one. For a combination operation, heat oil to 140 degrees F (60 degrees C) and hold it at that temperature. Using a pair of tongs, rotate each egg in the hot oil for 10 minutes, then set the egg on a rack to drain.

As with simple oiling, albumen foaming properties are reduced by this process, making these eggs unsuitable for cake baking.

Water Glass:

Submerging eggs in water glass was the preferred method of storage during the earlier part of the 20th century. Water glass is a syrupy concentrated solution of sodium silicate, available from a drugstore. Its purpose is to minimize evaporation and inhibit bacteria. The water glass imparts no taste or odor and--although it causes a silica crust to develop on the outside of the shell--does not penetrate the shell.

Put eggs in water glass the same day they are laid. Candle them and eliminate any with blood spots or meat spots. As with the other processes, use only clean (not cleaned) eggs that are free of cracks. place the eggs in a scalded glass jar with a tight fitting lid. A 1-gallon jar will hold about 3 dozen eggs.

Combine 1 part water glass to 10 parts boiled water. If the solution is not diluted enough, it will become a gel that makes handling the eggs more difficult. Mix the solution thoroughly and let it cool. Slowly pour the cooled liquid over the eggs until the solution covers the eggs by at least 2 inches (5 cm). Do not save leftover solution. Screw the lid onto the jar to prevent evaporation. If you don't have many eggs at one time, continue adding eggs and fresh solution until the jar is full, always making sure the solution is at least 2 inches (5 cm) above the eggs.

Store the jar in a refrigerator, basement, or other cool place where the temperature is preferably not over 40 degrees F (4.5 degrees C). At 35 degrees F (2 degrees C), eggs in water glass will keep for 6 months or more. If you wish to hard cook an egg, poke a tiny

hole in the big end to keep the shell from cracking as a result of the silica crust.

Even at room temperatures as high as 55 degrees F (13 degrees C), eggs in water glass will keep for several months and be satisfactory for cooking. Under the best storage conditions, water glass causes eggs to lose their fresh flavor and take on a flat taste. The whites will eventually get thin and the yolks will flatten, making them less suitable for frying or poaching than for scrambling or using in a recipe.