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Conserve the Nutrients

With Rationing and a Possible Shortage of Certain Foods, Conservation Is a "Must"

By ELFRIEDE F. BROWN

Conservation is a key word on the home front these days. Every civilian is conserving rubber, home equipment, farm machinery and energy. He must latch the doors of waste.

Here is a story of another conservation—"must"—the conservation of food. It's a story for homemakers who cook three square meals a day. Their job is more than one of "filling up the family." It is one of cooking available nutritious economical foods in such a way that the nutrients are retained.

And that's where the problem comes. Food nutrients have a peculiar way of escaping quickly from their original habitat—whether it be in carrots, beans or cabbage. It is important that the homemaker realize that her methods of storage and preparation may be the means of retaining or losing color, flavor, aroma, texture and, most important of all, nutritive value.

Doctors and dietitians are agreed that no class of foods suffer greater losses of food value through preparation than fresh vegetables. Yet those are the foods that most people rely upon to furnish an important share of the minerals and vitamins needed in the diet.

Vegetables are a vast storehouse of essential nutrients, but homemakers must remember that the sooner they are used after gathering the greater will be their vitamin value. Farm families with a summer vegetable garden east of the house have no summer storage problem. They can send one of the youngsters to the garden less than an hour before dinner.

During the winter months, however, the problem is not so simple. Vegetables either must come from the supply in the cave or cellar or be purchased at the store and kept in the refrigerator. Washing the vegetables before they are stored is desirable, but soaking is undesirable so far as soluble nutrients are concerned.

The best storage place for fresh vegetables is a closed container in the refrigerator. There the moisture in the air is relatively high, and moisture is an aid in preserving quality. Hardy vegetables also should be kept cool, although they need not be stored in the refrigerator. Potatoes and onions like the dark.

When it comes to preparing vegetables, nutritive losses may be small or great. The losses come from discarding edible parts, from peeling, from cutting and cooking in small pieces and from improper cooking methods. No homemaker would deliberately throw away the most nutritious parts. Yet that is exactly what happens when she discards the green outer leaves of lettuce and cabbage. They are richer in vitamin A, in calcium and iron than are the bleached inside leaves. Tender green beet and turnip tops, which actually have a higher nutritive value than the roots, likewise should not be tossed away as waste.

Vegetables should be cooked in their skins whenever possible. Nature's jacket holds in the nutrients, and little or nothing will be lost. When vegetables are pared and cut up, it is advisable to leave the pieces large so fewer cut surfaces will be exposed. With less surface of vegetables directly exposed to air and water, nutritive loss will be minimized. If vegetables must be peeled, the peeling should be thin or the vegetable scraped instead of pared.

Peeling vegetables results in loss, because some of the nutrients are present in largest quantities just under the skin. Some earlybird homemakers like to get their potatoes peeled and carrots scraped just after they wash the separator in the morning, but they are breaking a law of conservation, for some minerals as well as the B vitamins and ascorbic acid are soluble in the soaking water.

How much food value will be lost in cooking will depend largely upon the methods used. No minerals are lost in baking, and mineral loss in frying, panning or quick sauteing is negligible. In other cookery methods, the losses of calcium, phosphorus and iron are influenced by the kind of vegetable, the amount and kind of water used in cooking, the time of cooking and the size of pieces of vegetable. If all the cooking water is served, no minerals are lost.

Leafy vegetables like spinach naturally offer a larger surface area for food loss than compact vegetables like carrots, which lose most when large amounts of water are used, and when they are cooked in small pieces or are over-cooked.

Some leafy vegetables may lose half or more of their calcium, phosphorus and iron during the cooking process. Smaller losses result when the vegetable is steamed or cooked in the pressure cooker, where cooking water is small or the time is short.

The age and quality of vegetables also affect their vitamin value. That is, tender young carrots are richer in vitamins than are old, tough ones. Crisp young snap beans have a higher vitamin value than beans that are wilted and limp. When vegetables are in the prime of condition, they probably are highest in vitamins.

In cooking vegetables, "Heat, air, water, take their toll; keep all three under control." Homemakers must seek to minimize the storage and preparation losses if they would be specialists in conserving the nutrients of victory foods.