Recommendations to preserve food at home are based on science. This process is not the place to be creative and make up your own recipes. Doing this can lead to foodborne illness. While the practice of preserving food has existed for thousands of years, the methods have evolved to keep up with today’s food safety issues.

Do not use any recommendations for home canning that are older than 1994. Significant changes were made by the U.S. Department of Agriculture at that time to keep canned foods safe.

Canning can be a safe and economical way to preserve quality food at home. Disregarding the value of your labor, canning homegrown food may save you half the cost of buying commercially canned food. Canning favorite and special products to be enjoyed by family and friends is a fulfilling experience and a source of pride for many people.

Many vegetables begin losing some of their vitamins when harvested. Nearly half the vitamins may be lost within a few days unless the fresh produce is cooled or preserved. Within 1 to 2 weeks, even refrigerated produce loses half or more of some of its vitamins. The heating process during canning destroys from one-third to one-half of vitamins A and C, thiamin, and riboflavin. Once canned, additional losses of these sensitive vitamins are from 5-20 percent each year. The amounts of other vitamins, however, are only slightly lower in canned compared with fresh food. If vegetables are handled properly and canned promptly after harvest, they can be more nutritious than fresh produce sold in local stores.

The advantages of home canning are lost when you start with poor quality fresh foods; when jars fail to seal properly; when food spoils; and when flavors, texture, color, and nutrients deteriorate during prolonged storage.

**Ensuring safe canned foods**

Growth of the bacterium *Clostridium botulinum* in canned food may cause botulism — a deadly form of food poisoning. These bacteria exist either as spores or as vegetative cells. The spores, which are comparable to plant seeds, can survive harmlessly in soil and water for many years. When ideal conditions exist for growth, the spores produce vegetative cells which multiply rapidly and may produce a deadly toxin within 3 to 4 days of growth in an environment consisting of:

* a moist, low-acid food
* a temperature between 40° and 120°F
* less than 2 percent oxygen.

Botulinum spores are on most fresh food surfaces. Because they grow only in the absence of air, they are harmless on fresh foods.

Most bacteria, yeasts, and molds are difficult to remove from food surfaces. Washing fresh food reduces their numbers only slightly. Peeling root crops, underground stem crops, and tomatoes reduces their numbers greatly. Blanching also helps, but the vital controls are the method of canning and making sure the recommended research-based process times are used. Properly sterilized canned food will be free of spoilage if lids seal and jars are stored below 95°F.

**Come join me on Friday, July 8, at the CAB in Sharon Springs to learn more about canning produce safely. Call the office at 785-852-4285 for information.**