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# DRY BEANS—A Convenience-Type Food

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You can turn dry edible beans into a convenience food right in your own kitchen. The secret is a process for preparing and freezing beans so they can be quick-cooked and table-ready in 30 minutes. This process, developed and patented by USDA, replaces the traditional method of soaking beans for 16 to 24 hours in water, followed by cooking for as long as 3 hours.

Frozen presoaked beans from the home freezer are truly a convenience-type food because they require no further preparation before cooking.

## Preparing Dry Beans

Prepare dry beans for soaking by rinsing them carefully in cold water and hand sorting to remove stems, pod fragments, discolored beans and stones.

For each pound of dry beans to be soaked, prepare 1 quart of soak solution by adding sodium chloride, sodium bicarbonate, sodium carbonate and sodium tripolyphosphate to water and mixing well (Table 1).

## Why Dry Beans?

Dry edible beans can be an important tasty addition to everyone's diet for many reasons.

- Beans are economical. Dry beans are at or near the top of the list of foods that provide the most protein per dollar. A pound of dry beans (2 to 3 cups depending on variety) may look small, but they will double during soaking and cooking and result in 4 to 6 or more cups of good protein food.

- Beans are nutritious. Dry beans are well known for their high protein content. Although they are low in methionine, one of the essential amino acids of protein, this can be easily corrected by cooking or serving beans with meat, dairy products, rice or corn. All dry beans are important sources of the B vitamins, thiamin and riboflavin. Dry beans are a rich source of iron, necessary to build red blood cells. A cup of cooked dry beans provides almost half of a man's daily iron needs and about a quarter of a woman's needs. In addition, beans contain no cholesterol and are low in sodium.

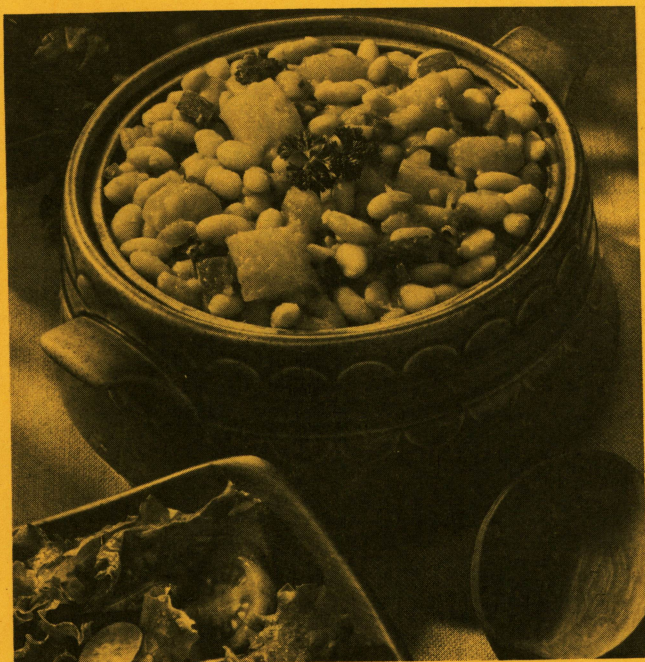
- Beans supply energy. Dry beans are a good energy source. Because they tend to digest slower than many carbohydrate foods, beans tend to satisfy hunger for a longer period of time. Even so, their calorie content is modest with 1/2 cup of cooked beans containing about 115 calories. Beans also are a good source of fiber.

Table 1. Ingredients for dry bean soak solution.

		1 Quart	5 Quarts
Sodium chloride (table salt)	NaCl	3 1/2 tsp	5 3/4 Tbsp
Sodium bicarbonate (baking soda)	NaHCO <sub>3</sub>	1 tsp	5 tsp
Sodium carbonate*	Na <sub>2</sub> CO <sub>3</sub>	1/4 tsp	1 1/4 tsp
Sodium tripolyphosphate*	Na <sub>5</sub> P <sub>3</sub> O <sub>10</sub>	1/4 tsp	1 1/4 tsp
Water		1 qt	5 qt

\*Sodium carbonate is available from most drug stores. Sodium tripolyphosphate, a chemical commonly used in food processing, may be difficult to obtain locally. It is available from Chemical supply firms and can also be obtained in small quantities from Chem Stores, University of Idaho, Moscow 83843.

For greater convenience, prepare a large quantity of the dry ingredients by mixing 3 1/2 cups of sodium chloride, 1 cup of sodium bicarbonate, 4 2/3 tablespoons of sodium carbonate and 4 tablespoons of sodium tripolyphosphate. Mix well and store in a sealed labeled container. When soak solution is needed, add 1 1/2 tablespoons (slightly rounded) of this mixture per quart of water.



Add beans to the soak solution and soak at room temperature (70°F) for 24 hours. Remove beans from soak solution, rinse thoroughly with cold water, drain and freeze in quantities needed for serving your family. Place them in the freezer immediately after packaging. The longer the beans remain at room temperature after packaging, the greater the possibility they could develop off-flavors.

### Serving

To prepare the presoaked beans for table use after freezing, remove a package from the freezer and empty the contents into boiling water. After the water again begins to boil, reduce heat to maintain a gentle boil and time for 30 minutes. Beans will be completely cooked and table ready.

Serving variations are limited only to the extent of the cook's imagination and can range from adding butter, salt and pepper to adding special exotic sauces and gravies. As an alternate, beans may be cooked for 20 minutes and then combined with a favorite sauce (tomato, cheese or meat) preparation and cooked another 10 minutes. Cooked beans mix surprisingly well with other foods.

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### Chuck Wagon Bean Pot (Serves 6)

- 5½ cups frozen presoaked beans
- 2 cups cooked diced ham
- 1 large onion, chopped
- 2 Tbsp oil
- 1 tsp salt
- 2 cups canned whole tomatoes

(For variety, substitute a 10 oz. can of green chili salsa and additional water for the tomatoes.)

Bring 6 cups water to boil in 6 to 8 quart kettle and add frozen beans. Bring back to boil, reduce heat and simmer 20 minutes. Stir frequently first 5 minutes (beans will foam during first stages of cooking).

While beans are simmering, saute ham and onions in oil until browned.

After simmering beans 20 minutes, drain about 1 cup water from beans. Add ham, onions, tomatoes and salt. Bring mixture to boil, reduce heat and simmer for 10 minutes.

### Swedish Brown Beans (Serves 15-18)

- 11 cups frozen presoaked beans (brown or pinto)
- 8 slices bacon, cut in 1-inch pieces
- ¼ cup diced onion
- 1 medium clove of garlic, minced
- ¼ tsp coarse grind black pepper
- ¼ cup light molasses
- 1 cup catsup
- 1 tsp Worcestershire sauce
- 1½ cups brown sugar
- ½ cup cider vinegar
- ¼ tsp dry mustard
- a shake of Tobasco sauce
- 3 Tbsp cornstarch mixed in ¼ cup cold water

Bring 12 cups water to boil in 12 to 16 quart kettle and add frozen beans. Bring back to boiling, reduce heat and simmer for 20 minutes. Stir frequently first 5 minutes (beans will foam during first stages of cooking).

While beans are simmering, saute bacon, onion and garlic until tender.

After beans have simmered for 20 minutes, drain about 8 cups water from beans. Add bacon and onion mixture and remaining ingredients. Adjust thickness, if desired, by adding some of the drained bean water. Simmer for an additional 10 minutes.

**NOTE:** Save drained water to adjust the thickness of the finished beans.