

Soy At Home Series No. 4

# Using Dry Soybeans

**International Soybean Program  
National Soybean Research Laboratory  
University of Illinois at Urbana - Champaign**



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Processing whole soybeans at home can be an economical way to increase the protein and nutrient value of your diet. The International Soybean Program (INTSOY) at the University of Illinois has developed processing methods that allow the beans to soften and cook more quickly than traditional methods. The result is better than beans cooked by the traditional method, and less energy is used in preparation.



Dry soybeans may be cooked and eaten as a whole bean or mashed for use in weaning foods, porridge, soups, salads, casseroles, or meat substitutes. Try substituting them for kidney, black, navy, or other cooked dried beans.

### *Purchasing or harvesting*

About a month after beginning to yellow, dry (mature) soybeans are ready for harvest. The pods should be fully yellowed and the beans hard, but the pods should not yet have begun to break open (shatter). Cut the plants at the base and gather them into a tarp or put them into a pillowcase or cloth bag. Beat with a stick to break the pods and release the beans, then winnow to separate the beans from the rest of the plant. Dry soybeans may also be purchased in health foods stores, some grocery stores, and via the internet.

Most dry soybeans are a creamy yellow-tan in color, although there is some variation depending on the variety of soybean. Less widely available are black soybeans, which are dark in color. They may be used like any dry soybeans but will cook more quickly and give a different color to the final product. Black soybeans have a milder flavor than yellow soybeans.

### *Storage*

Dry soybeans can be stored for long periods of time if they are kept away from humidity. Cooked soybeans are perishable and should be stored in a refrigerator for up to several days. The cooked beans may be frozen for later use. Because dry soybeans take a long time to cook, it can be both economical and convenient to cook a large batch of beans and then divide it into smaller portions and freeze for later use. Defrost the beans in the refrigerator.

# Cooking Dry Soybeans

## *Basic preparation*

Soybeans are blanched before cooking to destroy lipoxygenase, an enzyme that can lead to a beany off-flavor. Instead of blanching, the beans may be soaked in water for 8 hours or overnight before cooking to shorten the cooking time, but in this case lipoxygenase will be activated and the cooked soybeans will have a more 'beany' flavor. If the beans are soaked for more than 8 hours, be sure to refrigerate them so they do not begin to ferment. Blanching and soaking do not hydrate the soybeans enough to be eaten. The beans must be cooked after the blanching or soaking process.

Soaking soybeans before cooking or adding a pinch of baking soda to the cooking water will help soften the soybeans and shorten cooking time. Using baking soda is especially helpful if the cooking water contains minerals that will keep the beans from absorbing sufficient water during cooking. Only a small amount of baking soda is needed – adding too much will make the beans mushy.

## *Ingredients*

dry soybeans  
water  
baking soda

## *Method*

1. Sort through the soybeans and remove any broken beans and debris, such as leaves or stones, that may be present. Rinse the beans.
2. **Blanch the beans:** Bring 5 cups water to a boil for each cup of soybeans. Add a pinch of baking soda to the boiling water and then add the soybeans. Cook at a low boil for 5 minutes. Drain and rinse the soybeans in cold water. (If you choose not to blanch the beans, soak for at least 8 hours, preferably in a refrigerator.)
3. **Cook the beans:** Bring 5 cups water to a boil for each cup of soybeans. Add a pinch of baking soda to the boiling water and then add the blanched (or soaked) soybeans. Cook at a simmer for 2 to 3 hours (about 1-1/2 hours for black soybeans). The time is approximate because factors such as the temperature of cooking and the age of the dry beans will affect cooking time. The beans will be firm but easily mashed when done. Drain the beans to eat as is or to use in a recipe.

# Soy Nuts

*Soy “nuts” are an excellent way to keep whole soybeans ready to eat. They are portable, tasty snacks on their own and also add interest to salads and cereals.*

3 cups whole dry soybeans, debris removed  
2 pinches baking soda (divided use)  
salt or other seasonings to taste (optional)  
oil

1. **Blanch the beans:** Bring 6 cups water to a boil in a large pot. Add a pinch of baking soda and the soybeans. Simmer for 5 minutes. Drain and rinse the beans in cool water.
2. **Parboil the beans:** Bring 10 cups of water to a boil. Add a pinch of baking soda and the blanched soybeans. Cook at a low simmer for 15 minutes. Drain and rinse the beans in cool water. Dry the beans using paper towels or a clean cloth towel.
3. **Fry the beans:** Heat enough oil to allow deep frying. Fry the beans in batches to avoid overcrowding and permit the beans to cook evenly. When the beans are light brown in color, remove and blot to remove the excess oil. Sprinkle the fried nuts with salt or other seasonings while still hot. Cool the beans and store in an airtight container. Soy nuts can be held airtight at room temperature for a few weeks to months. Heat and air will make them turn rancid more quickly.

*Variations:* Make flavored soy nuts by heating 1 teaspoon of oil in a skillet and adding 1 cup of plain soy nuts; stir to coat nuts with oil and remove from heat. Put nuts in a brown paper bag or plastic bag lined with a paper towel. Add spices and shake to coat well. One spicy seasoning is a mixture of ½ teaspoon each of salt, cumin, and ground red pepper.

# Mexican Soup Olé

1 onion, chopped  
2 tsp. minced garlic  
1 Tbsp. vegetable oil  
1½ cups cooked soybeans, rinsed and drained  
2 cups vegetable or chicken broth  
1½ cups (or 1 15-oz. can) refried beans  
1 can (14.5 oz.) diced tomatoes, undrained  
1 cup salsa or to taste  
1 tsp. chili powder or to taste  
Optional garnishes: shredded soy cheese, crushed tortilla chips

1. Sauté the onion and garlic in the oil in a large saucepan or soup pot.
2. While the onion is cooking, purée the soybeans in the blender with about 1 cup of the broth. Add the puréed mixture, the rest of the broth, and the refried beans to the soup pot and stir until smooth.
3. Add the remaining ingredients (except optional garnishes) and bring to a boil. Reduce heat and simmer about 15 minutes to let the flavors blend. Garnish individual bowls with cheese and crushed chips, if desired.

Makes 8 servings

Per serving: 149 calories, 9 g protein, 18 g carbohydrate, 5 g fat (0.6 g saturated), 4.9 g dietary fiber

# Nutrients

Soy contains high quality (“complete”) protein. In addition to traditional nutrients, soy is also rich in phytochemicals like isoflavones, saponins, and sterols that offer many health benefits.

## ½ cup cooked mature yellow soybeans

149 calories  
14 g protein  
9 g carbohydrate  
8 g fat (1.1 g saturated fat)  
5.2 g dietary fiber  
88 mg calcium

*Source: USDA Nutrient Database*

## ½ cup cooked mature black soybeans

120 calories  
11 g protein  
8 g carbohydrate  
6 g fat (1.0 g saturated fat)  
7.0 g dietary fiber  
73 mg calcium

*Source: ESHA Food Processor*

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