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See [www.pickyourown.org/allaboutcanning.htm](http://www.pickyourown.org/allaboutcanning.htm) for many other canning directions and recipes

## How to Make Homemade Canned Green Beans or Yellow Beans (also Lima Beans, Broadbeans, Snap Beans, Pole Beans, Runner Beans, etc.)



You think making and canning your own green or yellow beans is difficult or expensive? Not at all! The only trick is, you really do need a pressure canner. Every university food science department and the government will tell you that it just is not safe to use the water bath method; it takes the higher temperatures of the pressure canner to kill the botulism bacteria.

See this FAQ for details: [Can I use a water-bath canner instead of a pressure canner for low acid foods like green beans?](#)

BUT, with a pressure canner it's easy. And although a pressure canner costs \$100 to \$200 (see this page for pressure canners models, makes and prices), they last a lifetime, and your children and grandchildren may be using it. You can also find free information from the USDA in this PDF file (it will take a while to load!) about [selecting and using canners](#) here!

So, here's how to can green beans, yellow beans, snap beans, pole beans, runner beans, broadbeans,! After this, I'll just refer to the beans as "green beans". but the same instructions works for the other types of beans. The directions are complete with instructions in easy steps and completely illustrated. In the winter when you open a jar, the green beans will taste MUCH better than any store-bought canned green beans (although I think frozen beans will taste ten times better than canned).

Prepared this way, the jars have a shelf life of about 12 months, and aside from storing in a cool, dark place, require no special attention. If you'd rather freeze your fruit, see my page on [how to freeze green beans](#). Even easier than canning and they will taste just like fresh. but it does take up space in the freezer.

## Directions for Making Canned Green Beans

### Ingredients and Equipment

- Beans (see step 1)
- Jar grabber (to pick up the hot jars)
- Jar funnel (\$2 at Wal-Mart)
- At least 1 large pot
- Large spoons and ladles
- Ball jars (Publix, Wal-Mart carry them - about \$8 per dozen quart jars including the lids and rings)
- Salt (optional - I don't use any)
- 1 Pressure Canner (a large pressure pot with a lifting rack to sterilize the jars after filling (about \$75 to \$200 at mall kitchen stores, Wal-Mart, cheaper online; [see this page for more information](#)). For low acid foods (most vegetables, you can't use an open water bath canner, it has to be a pressure canner to get the high temperatures to kill the bacteria. If you plan on canning every year, they're worth the investment.

### Recipe and Directions

#### Step 1 - Selecting the green beans



The most important step! You need green beans that are FRESH and crisp. Limp, old beans will make nasty tasting canned beans. Guests will probably throw them at you.. Select filled but tender, firm, crisp beans. Remove and discard any soft, diseased, spotted and rusty pods.

## How many green beans and where to get them

You can grow your own, pick your own, or buy them at the grocery store. About 14 pounds of beans makes 7 quart jars; or 9 pounds is needed per 9 pints. A bushel, which produces anywhere from 13 to 20 quarts, weighs 30 pounds. That works out to an average of 2 pounds of beans per finished quart jar.



## Step 2 - Prepare the jars and pressure canner

### Wash the jars and lids

This is a good time to get the jars ready! The dishwasher is fine for the jars - put the lids into a pan of boiling water for at least several minutes. I just put the lids in a small pot of almost boiling water for 5 minutes, and use the magnetic "lid lifter wand" (available from WalMart, Target, and sometimes at grocery stores) to pull them out.

### Get a large pot of water boiling

We will use this water to pour over the beans and fill each jar with liquid, after we've packed them full of beans. I use the largest pot I have, so that there is plenty of clean, boiling water ready when I need it.



### Get the pressure canner heating up

Rinse out your pressure canner, put the rack plate in the bottom, and fill it to a depth of 4 inches with hot tap water. (of course, follow the instruction that came with the canner, if they are different). Put it on the stove over low heat, with the lid OFF of it, just to get it heating up for later on.

**Step 3 - Wash the green beans!**

I'm sure you can figure out how to rinse the green beans in plain cold or lukewarm water.



**Step 4 - Trim the ends and cut into smaller pieces**

Just take a sharp knife and cut off both ends



(about 1/4 of an inch, or half the width of an average woman's little finger). Then cut them into pieces of the size you prefer, usually about 1 inch long.

Of course, if you prefer French cut green beans, you can cut the beans lengthwise instead, or you can use a "bean Frencher". The "Frencher" enables you to prepare a huge quantity of beans quickly!



[See the bottom of this page for makes, models, prices and ordering info for bean frenchers.](#)



### **Step 5 - Packing the beans in the canning jars**

This is called "raw packing" because we don't cook the beans before packing them into the jars. Pack the jars fairly tightly, but be sure to leave 1 inch of space at the TOP of the jar. That is called "headspace" and is needed for expansion during heading.



### **Step 6 - Pour boiling water into each packed jar**



Use a ladle or pyrex measuring cup to carefully fill each packed jar with water from pot of boiling water. Fill to within 1 inch of the top. The beans should be covered and there should still be 1 inch of airspace left in the top of each jar. Be careful not to burn yourself, (or anyone else - children should be kept back during this step!)

### **Step 7 - Put the lids and rings on**

Put the lids on each jar and seal them by putting a ring on and screwing it down snugly (but not with all you might, just "snug").



### **Step 8 - Put the jars in the canner and the lid on the canner (but still vented)**



Using the jar tongs, put the jars on the rack in the canner. By now the water level has probably boiled down to 3 inches. If it is lower than that, add more hot tap water to the canner. When all the jars that the canner will hold are in, out on the lid and twist it into place, but leave the weight off (or valve open, if you have that type of pressure canner).

**Step 9 - Let the canner vent steam for 10 minutes**

Put the heat on high and let the steam escape through the vent for 10 minutes to purge the airspace inside the canner.



**Step 10 - Put the weight on and let the pressure build**

After 10 minutes of venting, put the weight on and close any openings to allow the pressure to build to 11 pounds.

**Step 11 - Process for 25 minutes**

Once the gauge hits 10 pounds, start your timer going - for 25 minutes. Adjust the heat, as needed, to maintain 10 pounds of pressure.

Note: the chart at right will help you determine the right processing time and pressure, if you have a different type of canner, or are above sea level.

It is important to learn how to operate your pressure canner by reading the owner's manual that came with your particular canner. If you can not find your owner's manual, you can obtain find one online: Here is where to find some common manufacturer's manuals:

- [Presto canner manuals](#)

or by contacting the company that made your canner. Give the model number to the manufacturer, and they will send you the right manual. More [notes on pressure canners from Colorado State University](#).

Recommended process time for green beans in a weighted-gauge pressure canner.

		<b>Canner Pressure (PSI) at Altitudes:</b>	
<b>Jar Size</b>	<b>Process Time</b>	<b>0 - 1,000 ft</b>	<b>Above 1,000 ft</b>
Pints	20 min	10 lb	15 lb
Quarts	25	10	15

Recommended process time for Green Beans in a dial-gauge pressure canner.

		<b>Canner Pressure (PSI) at Various Altitudes</b>			
<b>Jar Size</b>	<b>Process Time</b>	<b>0 - 2,000 ft</b>	<b>2,001 - 4,000 ft</b>	<b>4,001 - 6,000 ft</b>	<b>6,001 - 8,000 ft</b>
Pints	20 min	11 lb	12 lb	13 lb	14 lb
Quarts	25	11	12	13	14

### Step 12 - Turn off the heat and let it cool down



After 25 minutes at 11 pounds, turn off the heat and let the canner cool down. After the pressure drops to zero (usually, you can tell but the "click" sound of the safety release vents opening, as well as but the gauge. Wait 3 more minutes, then open the vent or remove the weight and allow the

steam to escape.



### Step 13 - Remove the jars

Lift the jars out of the water and let them cool on a wooden cutting board or a towel, without touching or bumping them in a draft-free place (usually takes overnight), here they won't be bumped. You can then remove the rings if you like. You're done!

### Other Equipment:

From left to right:

1. Jar lifting tongs  
helpful to pick up hot jars
2. Lid lifter  
- to remove lids from the pot of hot water
3. Lid  
- disposable - you may only use them once
4. Ring  
- holds the lids on the jar until after the jars cool - then you don't need them
5. Canning jar funnel  
- to fill the jars



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## Frequently Asked Questions

Q. Is it safe to can green beans in a traditional water bath? If so how long do you do process them?

A. The answer, quite simply is no. Quoting from the [Ohio State University Extension's Fact Sheet](#):

"Pressure canning is the only safe method for home canning vegetables. *Clostridium botulinum* is the bacterium that causes botulism food poisoning in low-acid foods, such as vegetables. The bacterial spores are destroyed only when the

vegetables are processed in a pressure canner at 240 degrees Fahrenheit (F) for the correct amount of time.

*Clostridium botulinum* is the bacterium commonly found in vegetables and meats. It is harmless until it finds itself in a moist, low-acid, oxygen-free environment or a partial vacuum. Under these conditions, the bacterium can grow and produce toxins dangerous to people and animals.

*Do not process (low acid) vegetables using the boiling water bath because the botulinum bacteria can survive that method.*

And Clemson University provides these questions and answers:

**Can fruits and vegetables be canned without heating if aspirin is used?** No. Aspirin should not be used in canning. It cannot be relied on to prevent spoilage or to give satisfactory products. Adequate heat treatment is the only safe procedure.

**Is it safe to can green beans in a boiling water bath if vinegar is used?** No. Recommended processing methods must be used to assure safety. Recommended processing times cannot be shortened if vinegar is used in canning fresh vegetables. (This does not refer to pickled vegetables.)

Salt and sugar are not preservatives for vegetables: they are added to stabilize and improve flavor, but will not prevent spoilage.

Salicylic acid is also NOT a preservative. The [University of Illinois reports](#):

## **Using Aspirin for Canning**

Several years ago, a recipe circulated using aspirin to acidify tomatoes and green beans for canning. Aspirin is not recommended for canning. While it contains salicylic acid, it does not sufficiently acidify tomatoes or green beans for safe hot water bath canning. Green beans are low acid foods and may only be processed safely in a pressure canner. Lemon juice or vinegar is recommended to acidify tomato products for safe water bath processing.

Think of it like smoking. We all know someone who smoke their entire life and lived to be 90. But the cemeteries are filled with the vast majority who didn't. You'll hear people say "my grandmother did it that way for 20 years". But of course, the people who died from food poisoning aren't around and often didn't have descendents to tell their tale...

## **Pressure canners!**

If you want to can low-acid foods such as red meats, sea food, poultry, milk, and all fresh vegetables with the exception of most tomatoes, you will need a pressure canners. These foods fit into the low acid group since they have an acidity, or pH level, of 4.6 or greater. The temperature which must be reached and maintained (for a specified amount of time) to kill the bacteria is 240 F. Pressure canning is the only canning method recommended safe by the U.S.D.A. for low-acid foods such as vegetables, meats, and fish. Ordinary water bath canners can only reach 212 F and can not to kill the types of bacteria that will grow in low acid foods. This temperature can be reached only by creating steam under pressure as achieved in quality pressure canners.