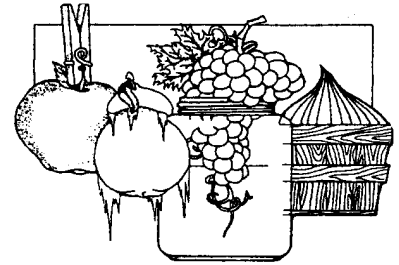


Quality for Keeps



Information for those who produce and preserve food

Putting up Snap, Italian and Wax Beans

While spring planting season has ended in many locations, fall plantings may be done in July or August—so the preserving season doesn't end any time soon!

Varieties matter when canning and freezing green beans. Some varieties are suitable for canning or freezing, while others are bred solely for eating fresh from the garden. To avoid disappointment, read seed package labels carefully before selecting green bean seeds for planting.

Common green bush varieties grown in Missouri include: Provider, Contender, Hialeah, Derby, Strike, Tendercrop, Top Crop and Royal Burgandy. Common yellow bush varieties include: Gold Crop, Slender Wax, Gold Mine, Gold Rush and Eureka. Runner types include: Mountaineer, State and Striped.

Preserving tips. When selecting green beans, choose filled but tender, crisp pods. To help prevent mushiness, choose green beans that are a little more mature than those selected for freezing or immediate table use.

Water that has been softened may also cause green beans to be mush, just as very hard water may toughen beans.

Like any other low-acid vegetable, green beans must be processed in a pressure canner. Never preserve low-acid foods in a boiling-water canner, because botulinum bacteria can survive the process. This holds true 100% of the time. Recommended processing times cannot be shortened if vinegar is used in canning fresh vegetables (this does not refer to pickled vegetables).

Canning green beans. For a 7-quart canner load, an average of 14 pounds of fresh beans will be needed. If processing a 9-pint canner load, an average of 9 pounds of fresh beans will be needed.

Procedure. Wash beans thoroughly and trim ends. Leave beans whole, or cut or snap beans into 1-inch pieces. Remove and discard diseased or rusty spots.

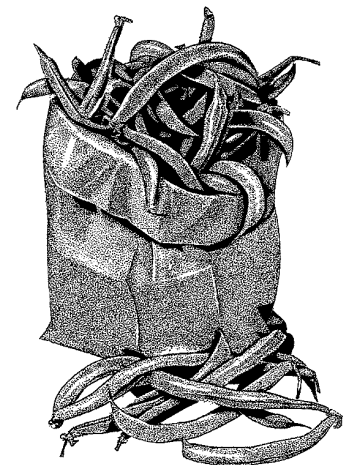
Hot pack. Place beans in a large saucepan and cover with boiling water; boil for five minutes. Fill jars loosely with green beans; leave 1 inch of headspace. Fill jars to 1 inch from top with boiling hot cooking liquid. Remove air bubbles and adjust lids.

(Cont'd on page 2)

Prepping green beans for immediate use

Store fresh green beans up to a week in the refrigerator. Do not wash beans before storing. Wash them in cold water immediately before using. For cooking, trim green beans and cut into 1-inch pieces. To maintain optimal color, flavor and nutrients, bring a small pot of water to a boil. Use no more than 1-inch of water for a pound of green beans. Add green beans once the water boils and cook uncovered for the first few minutes. Cover with a lid and continue to cook just until tender crisp. Overcooking can cause discoloration of the beans.

One pound of fresh beans will yield 5 to 6 servings and will only need about 13-15 minutes to cook.



Inside this issue:

| | |
|----------------------------|---|
| New canning products | 2 |
| Canning problems | 3 |
| Pickled green beans | 4 |

Beans *(Cont'd from cover page)*

Raw pack. Fill jars with raw beans and pack tightly, but do not crush beans. Leave 1 inch of headspace, then fill jars to 1 inch from top with boiling water. Remove air bubbles, wipe jar rims and adjust lids.

Process pint jars for 20 minutes at 11 pounds of pressure in a dial-gauge canner, 0-2,000 feet altitude. For a weighted gauge canner, process pints for 20 minutes at 10 pounds pressure, 0-1,000 feet altitude or at 15 pounds pressure above 1,000 feet altitude.

Process quart jars for 25 minutes at 11 pounds of pressure in a dial-gauge canner, 0-2,000 feet altitude and at 10 pounds pressure in a weighted-gauge canner 0-1,000 feet altitude, or at 15 pounds of pressure in a

weighted-gauge canner above 1,000 feet altitude.

To salt or not. Salt helps to season vegetables, but is not necessary for the safety of home canned vegetables. If desired, add one teaspoon of canning salt per quart jar, or 1/2 teaspoon of canning salt per pint jar. Most stores sell canning salt next to canning equipment or beside other varieties of cooking salt in the spice section. Do not use salt substitutes when canning since it may cause a bitter taste.

Salt substitutes should only be added to canned vegetables after jars are opened and when served.



Freezing. Select young tender bean pods with small seeds. Remove rust or diseased spots and wash thoroughly in cold water. Cut or snap beans into 2-inch to 4-inch pieces. Blanch in boiling water for 3 minutes. Cool beans promptly by placing them in ice water to stop the cooking process. Drain and package beans in freezer bags leaving 1/2-inch headspace. Before freezing, bags may be placed in rigid-plastic freezer containers for added protection from puncture and freezer burn.

Source: MF-1179, Preserving Green Beans, Kansas State University Extension.

Source: GH1454, Preserve Your Garden Delights: How to Can Fresh Vegetables, University of Missouri Extension.

New products for 2014 canning season

Blue and Green Jars. Blue and green historic canning jars have appeared on store shelves and are suitable for home use. However, do not use these colored canning jars for exhibits at local and state fairs. Colored glass makes it difficult to judge quality and safety of any product. Food exhibited in colored glass jars will be disqualified from judging.

FreshTECH Automatic Jam and Jelly Maker. This is a small appliance available from the Ball® Company. This electric pot comes with 10 recipes; 55 more recipes can be accessed for the jam and jelly maker at <http://freshpreserving.com/JamMaker.aspx>. Jam and jelly

recipes from other reliable sources can be used in this machine but are not guaranteed to gel.

The Jam and Jelly maker takes about 20-25 minutes to make products. Once the process is complete, jam or jelly can then be preserved by refrigerating up to three weeks, freezing or processing in a water bath canner.

The Jam and Jelly maker must cool for 30 minutes between batches. The unit sells online for about \$100, or it can be found in some retail stores.

Ball® FreshTECH Automatic Home Canning System. This is another electric unit recently introduced to the public. It is a water bath canner. Processing

times are about 30% less than traditional water bath canning process times. It is a good option for those who do small batches, as the machine will hold six–8 ounce jars, 4 pint jars or 3 quart jars.

This automatic canner can only be used with recipes designed specifically for it. 50 recipes are included with the purchase of the canner and 50 more are available online at www.freshpreserving.com.

Disclaimer: University of Missouri presents this information for education purposes only. It neither endorses nor rejects these products.

Troubleshooting canning issues

Sometimes problems are experienced when using a pressure canner. Two of the most common issues are jars not sealing or a loss of liquid during processing.

Why did the jar not seal?

- Using supplies that are not recommended for canning. Stick to standard canning jars and 2-piece lids (flat and ring band). Be sure ring bands are free from rust and dents and jars are free of nicks, chips and cracks. Flats should not be reused.
- Failure to follow recommended time of processing, pressure level and instructions for processing can cause jars to remain unsealed.
- Rings on jars are tightened down too tightly or not tight enough before processing. Rings should be tightened only to finger-tip tightness, no more no less.

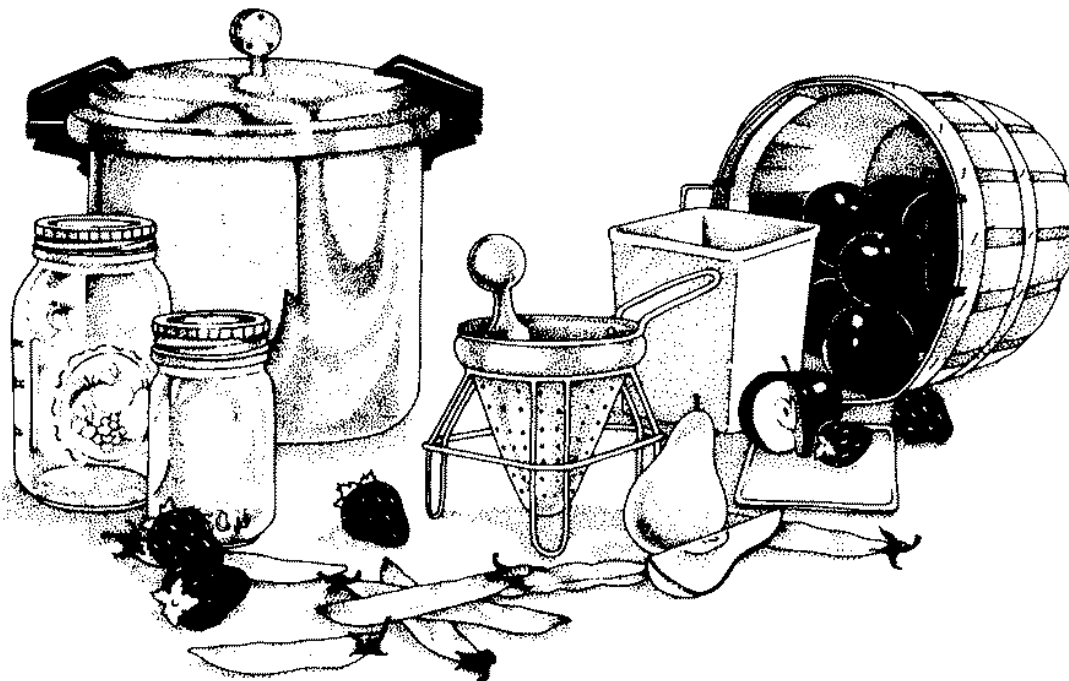
- Not cleaning the rim of jars. Jar rims should be wiped with a damp paper towel before flats and bands are placed on jars.
- Siphoning of liquid, causing particles of food to be lodged between lids and rims of jars. Sudden drops in pressure can cause siphoning of liquid.
- Lifting jars by the top or inverting jars while hot. Use a jar lifter for removing jars from pressure canner, grasping jars below the lip. Leave jars in an upright position at all times.

Why did the jars lose liquid during processing?

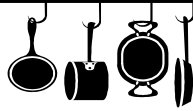
- Using supplies that are not recommended for canning. Use only standard canning jars, flats and rings.
- Food is packed too tightly in jars or the jars are too full—allow appropriate headspace.

- Pressure is too high.
- Fluctuation in pressure. Maintain a constant temperature throughout processing time to avoid fluctuations.
- Sudden decrease in pressure after processing period. Do not force the pressure down, allow pressure to drop to zero naturally. Follow pressure canning instructions and be patient.
- Starchy foods absorbed the liquid.
- Failure to remove air bubbles from jars before processing—using a plastic or rubber utensil, remove air bubbles by running the utensil around edge of jars, between the jar and the food.

Source: "So Easy to Preserve," fifth edition, Elizabeth Andress, PhD, Judy A. Harrison, PhD, Cooperative Extension/The University of Georgia/Athens.

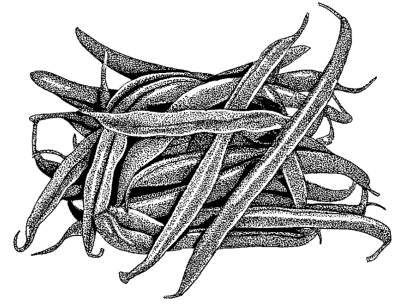


THE RECIPE BOX



Pickled Green Beans

- 2 pounds fresh green beans
- 1 tsp cayenne pepper
- 4 heads dill or 4 teaspoons dill seed
- 4 cloves garlic
- 2-1/2 cups water
- 2-1/2 cups vinegar (5%)
- 1/4 cup salt



Yield: 4 pints

Procedure: Sterilize canning jars*. Wash, trim ends and cut beans into 4-inch pieces.

Pack beans, lengthwise, into hot pint jars, leaving 1/2-inch headspace. To each pint, add 1/4 teaspoon cayenne pepper, one clove garlic, and one dill head or one teaspoon dill seed. Combine remaining ingredients and bring to boil. Pour boiling hot liquid over beans, leaving 1/2-inch headspace. Remove air bubbles. Wipe jar rims. Adjust lids. Process 5 minutes in a Boiling Water Bath. Let beans stand for at least 2 weeks before tasting to allow the flavor to develop.

*Jars that will be filled with food and processed for less than 10 minutes in a boiling water bath canner should be sterilized. To do this, boil jars for 10 minutes. If you are at an altitude higher than 1,000 feet, boil an additional minute for each 1,000 feet of additional altitude.

Source: "So Easy to Preserve," fifth edition, Elizabeth Andress, PhD, Judy A. Harrison, PhD, Cooperative Extension/The University of Georgia/Athens.

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