

Chapter 1

A Quick Overview of Canning and Preserving

In This Chapter

- ▶ Discovering the world of canning and preserving
 - ▶ Understanding the *whys* and *hows* of canning and preserving
 - ▶ Preparing yourself for safely canning and preserving your foods
 - ▶ Becoming a successful food canner and preserver
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Over the years, because of our busy lifestyles and the convenience of refrigeration and supermarkets, the art of canning and preserving has declined. Other than jams and jellies, many people started thinking of canning as sort of a novelty hobby. But today, many people have a renewed interest in learning this art. With the decline in the economy, more people are finding that canning and preserving foods is an inexpensive and easy way to have a full pantry.

This chapter gives you an overview of the four canning and preserving techniques presented in this book — water-bath canning, pressure canning, freezing, and drying — and explains the benefits, both practical and emotional, that canning and preserving your own foods can provide.

If you're new to canning and preserving, don't be overwhelmed or scared off by the rules. This book walks you through easy, step-by-step instructions for each technique. After you understand the basic procedures for a method, like water-bath canning, it's just a matter of concentrating on preparing your recipe.

Knowing the Benefits of Canning and Preserving Your Own Food

Canning and preserving are ways to protect food from spoilage so you can use it at a later time. Some preserving methods, like drying, date back to ancient times; others, like canning, are a little more recent. There's no doubt that being able to offer fresh-tasting, home-canned or -preserved foods to your family and friends throughout the year is definitely one of life's luxuries.

Whatever food-preservation method you choose (this book covers canning, freezing, and drying), your efforts will give you

- ✓ **A pantry full of fresh, homegrown foods.** Having a stocked pantry offers a cushion against the fluctuating cost of healthy foods. If you enjoy specialty foods from gourmet stores but dislike the high prices, home-canning is a safe and economical way to preserve large or small quantities of high-quality food.
- ✓ **Convenience:** You can build a pantry of convenience foods that fit into your busy lifestyle and that your family will enjoy.
- ✓ **Confidence in the ingredients that go into your food.** If you love fresh ingredients and like to know what goes into your food, doing your own canning and preserving is the answer.
- ✓ **Protection against rising food costs.** The whole idea of canning and preserving is to take advantage of fresh food when it's abundant. And abundant food generally means lower cost.
- ✓ **A sense of relaxation and accomplishment:** For many people working in the kitchen and handling food provides a sense of relaxation, and watching family and friends enjoy the products of your efforts gives you a great sense of accomplishment. Taking the time to select your recipe, choosing and preparing your food, and packaging and processing it for safety is fulfilling and a source of pride for you, the home-canner.
- ✓ **A good time:** Producing canned and preserved food in your kitchen is fun and easy — and who doesn't like fun?



The price of food has skyrocketed in the last few years. Food safety has become a concern for everyone. Canning is the answer to both the price dilemma and the desire to offer nutritious foods throughout the year. Home-canning and -preserving instantly rewards your efforts when you follow the proper steps for handling and processing your food.



Who's canning today?

Although home-canning and -preserving has skipped one or two generations, one thing is certain: It's on the rise. Men and women of all ages practice the art of home-canning. It no longer matters whether you live in the country or in the city or if you grow your own food. Fresh ingredients are available just about everywhere. Farmer's markets are commonplace in many cities and towns, making it easy to find the perfect foods to preserve for an affordable price.

Exact statistics regarding home-canning vary, but according to the largest manufacturer of home-canning products, Alltrista, approximately one out of four households in the United States cans food. Today, most home-canned products are used in the home where they're produced. In addition, a rising number of people are committed to eating locally, and these folks want to know what is in the foods they eat. By preserving their own foods, they can find the freshest food available and control what goes in their food.

Meeting Your Techniques: Canning, Freezing, and Drying

The techniques discussed in this book are safe for home use and produce superior results when you follow all the steps for each method. You compromise the quality and safety of your food if you make your own rules. An example of this is shortening your processing period or not timing it correctly. Either of these adjustments can cause food spoilage because the food doesn't heat long enough to destroy all of the microorganisms in it.



Review the basic techniques for your type of food preserving before you begin — and if you're already familiar with the techniques, review them annually just to refresh your memory. You'll experience fewer interruptions in your food-preserving process. Always do a trial run before canning. This ensures you have all your supplies and steps in order so that you can work quickly and efficiently.

You'll have no doubts about preparing safe home-canned and -preserved food after you discover what each method does, which method is best for different foods, the rules for the technique you choose, and safe food-handling techniques. The pages that follow introduce you to the ancient and modern-day techniques that will help you can and preserve with ease.



Put by or *putting up* are terms that describe canning years ago, before there was refrigeration. They meant, “Save something perishable for use later when you’ll need it.”

About canning food

Canning is the most popular preserving method used today. Don’t let anyone tell you that home-canning is complicated and unsafe. It’s simply not true. Canning is the process of applying heat to food that’s sealed in a jar in order to destroy any microorganisms that can cause food spoilage. All foods contain these microorganisms. Proper canning techniques stop this spoilage by heating the food for a specific period of time and killing these unwanted microorganisms. Also, during the canning process, air is driven from the jar and a vacuum is formed as the jar cools and seals. This prevents microorganisms from entering and recontaminating the food.

Approved methods

Although you may hear of many canning methods, only two are approved by the United States Department of Agriculture (USDA). These are water-bath canning and pressure canning:

- ✓ **Water-bath canning:** This method, sometimes referred to as *hot water canning*, uses a large kettle of boiling water. Filled jars are submerged in the water and heated to an internal temperature of 212 degrees for a specific period of time. Use this method for processing high-acid foods, such as fruit, items made from fruit, pickles, pickled food, and tomatoes. Chapter 4 explains this method in detail.
- ✓ **Pressure canning:** Pressure canning uses a large kettle that produces steam in a locked compartment. The filled jars in the kettle reach an internal temperature of 240 degrees under a specific pressure (stated in pounds) that’s measured with a dial gauge or weighted gauge on the pressure-canner cover. Use a pressure canner for processing vegetables and other low-acid foods, such as meat, poultry, and fish. For more information about pressure canning, see Chapter 9.



Don’t confuse a pressure canner with a pressure cooker, which is used to cook food quickly. A pressure cooker does not have adequate room for both the canning jars and the water needed to create the right amount of pressure to preserve foods.



In both water-bath canning and pressure canning, you heat your filled jars of food to a high temperature in order to destroy microorganisms and produce an airtight, vacuum seal. The only way to reliably produce a safe canned product is to use the correct method for your type of food, follow your recipe instructions to the letter, and complete each processing step. For all the details you need about canning and a plethora of recipes, head to Parts II and Part III.

Canning methods to avoid

Older canning methods are unreliable and, for that reason, aren't used or recommended today for home-canning. Occasionally, these methods are "revived" as being faster and easier than water-bath or pressure canning, but using any of the following methods is like playing Russian roulette with your food safety. Just because your grandmother used one of the following methods doesn't make it safe to use today. If you see instructions that require you to use any of the following methods, do yourself a favor and pass by that recipe.

- ✔ **Oven method:** In this method, filled jars are placed in a hot oven. The method is unsafe because your food's internal temperature most likely won't become hot enough to destroy microorganisms and other bacteria that cause spoilage. There's just no guarantee that the food in the jars will reach the temperature you set your oven at. There's also a chance that your jars may explode from the sudden temperature change when your oven door is opened.
- ✔ **Open-kettle method:** In this method, food is cooked in an open pot and transferred to sterilized jars. The two-piece caps are quickly added in hopes of sealing the jars as the food cools. This process produces a low vacuum seal that may be broken as gas from spoiling food builds up in the jar. This occurs because your food isn't heated to destroy microorganisms. There's also a chance your food may become contaminated when transferring it into the jars.
- ✔ **Steam method:** This method uses a shallow, covered pan with a rack in the bottom. After the filled jars are placed in the pan, steam circulates around the jars. This method is unsafe because the jars aren't evenly heated and the steam isn't pressurized to superheat the food and destroy microorganisms. Don't confuse this method with pressure canning.
- ✔ **Microwave oven:** All microwave ovens heat differently. Because of this, there's no way to set standards for processing times that achieve a high temperature to penetrate the jars and destroy microorganisms that cause food spoilage.
- ✔ **Dishwasher:** Because there's no way to know the exact temperature of different dishwashers and because temperature fluctuates throughout the cleaning cycle, dishwasher canning is a no-no. You can't rely on it to produce a safely canned product. You can, however, use a dishwasher to wash your jars and let them sit in the hot dishwasher until you're ready to fill them.
- ✔ **Aspirin:** Don't laugh at this, but at one time, aspirin was used as a substitute for heat processing. It does contain a germicidal agent that acts as a preservative, but this agent doesn't destroy the enzyme that causes deterioration in food and food spoilage.
- ✔ **Wax or paraffin seal:** Using wax or paraffin was once thought of as a safe way to seal canned goods. It has been proven to be unreliable, and dangerous botulism spores can still develop.

About freezing food

Freezing foods is the art of preparing and packaging foods at their peak of freshness and plopping them into the freezer to preserve all that seasonal goodness. Freezing is a great way to preserve foods that can't withstand the high temperatures and long cooking of conventional canning methods.

The keys to freezing food are to make sure it's absolutely fresh, that you freeze it as quickly as possible, and that you keep it at a proper frozen temperature (0 degrees).



The quality won't get better just because you throw it in the freezer. Properly packaging food in freezer paper or freezer containers prevents any deterioration in its quality. Damage occurs when your food comes in contact with the dry air of a freezer. Although freezer-damaged food won't hurt you, it does make the food taste bad. Here are three things to help you avoid freezer burn:

- ✓ **Reduce exposure to air:** Wrap food tightly.
- ✓ **Avoid fluctuating temperatures.** Keep the freezer closed as much as possible. Know what you want to remove before opening the door.
- ✓ **Don't overfill your freezer.** An overly full freezer reduces air circulation and speeds freezer damage.

For information and instructions on freezing a variety of foods, go to Part IV.

About drying food

Drying is the oldest method known for preserving food. When you dry food, you expose the food to a temperature that's high enough to remove the moisture but low enough that it doesn't cook. Good air circulation assists in evenly drying the food.

An electric dehydrator is the best and most efficient unit for drying, or dehydrating, food. Today's units include a thermostat and fan to help regulate temperatures much better. You can also dry food in your oven or by using the heat of the sun, but the process will take longer and produce inferior results to food dried in a dehydrator. Go to Part V for drying instructions for fruits, vegetables, and herbs.

Key Tricks to Successful Canning and Preserving

Canning and preserving methods are simple and safe, and they produce food that's nutritious, delicious, and just plain satisfying to your taste buds. Becoming a successful food preserver takes time, effort, and knowledge of the rules. Follow these tips for achieving success as a home canner and preserver:

- ✓ **Start with the freshest, best products available.** Preserving doesn't improve food quality. If you put garbage in, you get garbage out.
- ✓ **Know the rules and techniques for your canning or preserving method before you start your work.** Don't try to learn a technique after you've started your processing.
- ✓ **Work in short sessions to prevent fatigue and potential mistakes.** Process no more than two items in one day, and work with only one canning method at a time.
- ✓ **Stay up to date on new or revised guidelines for your preserving method.** This book is a great start. You can also go to Web sites like www.freshpreserving.com, created by the makers of Ball canning supplies. Here you can find tips and directions for canning just about anything.
- ✓ **Use the correct processing method and processing time to destroy microorganisms.** The recipe will tell you what method to use, but it helps if you understand the difference between high- and low-acid foods and how the canning methods for each differ. Go to Chapter 3 for details.
- ✓ **Know the elevation you're working at.** Adjust your processing time or pressure when you're at an altitude over 1,000 feet above sea level. For accurate information on how to adjust for your altitude, refer to Chapter 4 for water-bath canning conversions and Chapter 9 for pressure canning conversions.
- ✓ **Put together a plan before you start your preserving session.** Read your recipe (more than once). Have the proper equipment and correct ingredients on hand to prevent last-minute shortages and inconvenient breaks (make a list of what you need and check off items as you gather them).



- ✓ **Test your equipment.** If you're using a pressure canner or an electric dehydrator, test out the equipment to ensure everything's working properly. And always check the seals on your jars.
- ✓ **Use recipes from reliable sources or ones that you've made successfully before.** Follow your recipe to the letter. Don't substitute ingredients, adjust quantities, or make up your own food combinations. Improvisation and safe food preservation aren't compatible. This also means you can't double your recipe. If you require more than what the recipe yields, make another batch. Always use the size jars that are recommended in the recipe as well. Trying to use a larger or smaller jar may throw off the yield and final result.

Now you're ready to take your food to its final destination in the preservation process. Whether you choose canning, freezing, or drying, proceed down your canning and preserving road with confidence.