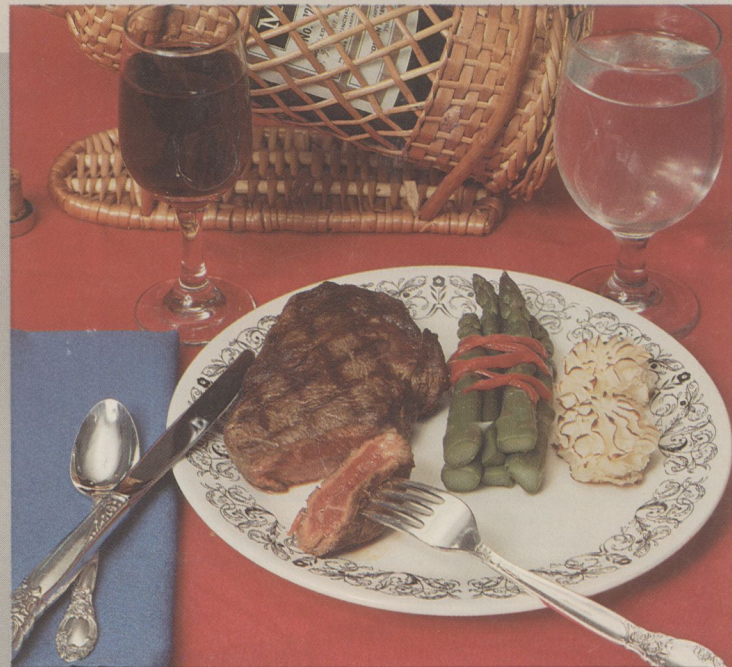


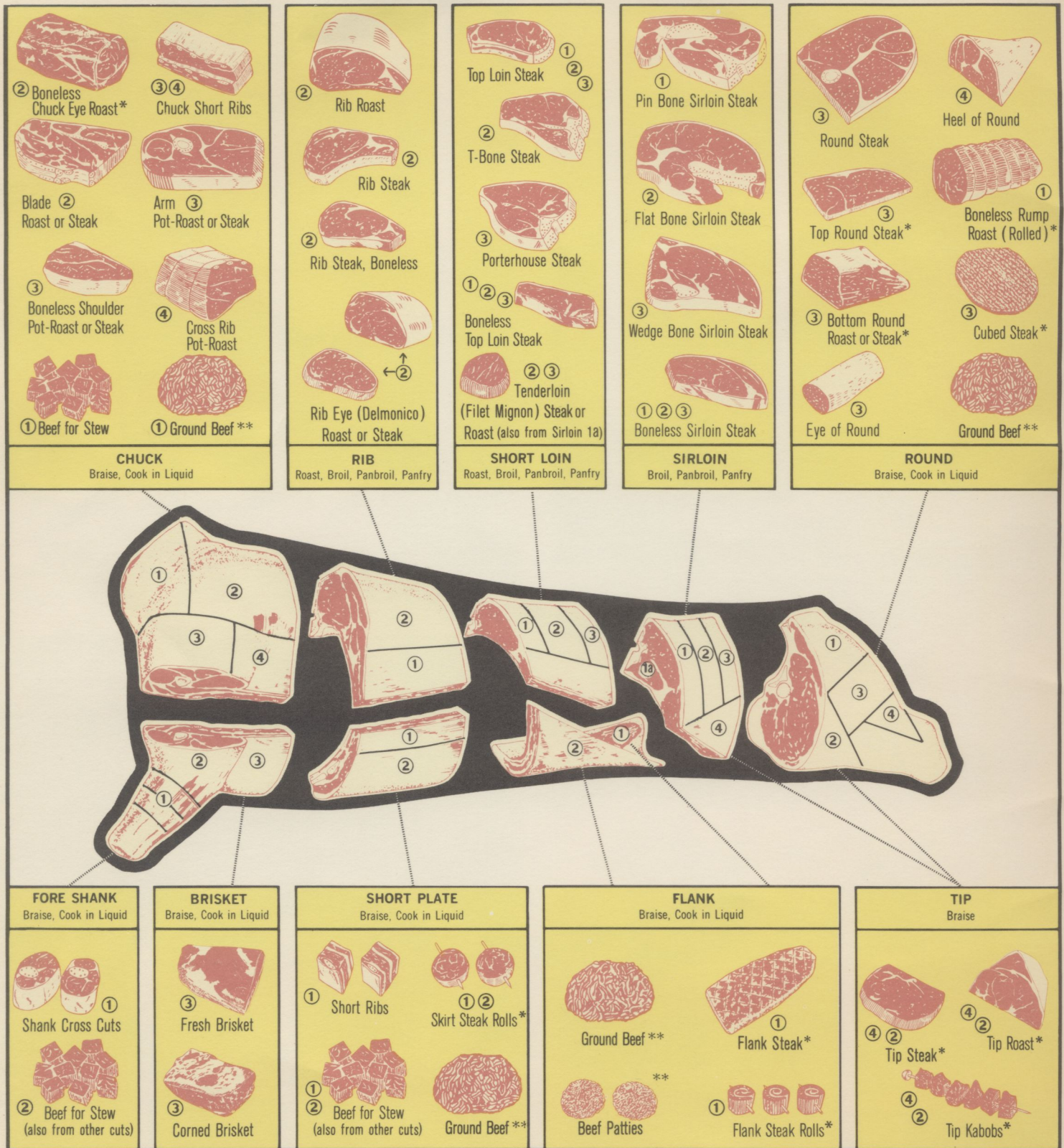
# *How to* Make the Most of Your Freezer





# RETAIL CUTS OF BEEF


WHERE THEY COME FROM AND HOW TO COOK THEM



\*May be Roasted, Broiled, Panbroiled or Panfried from high quality beef.

\*\*May be Roasted, (Baked), Broiled, Panbroiled or Panfried.

This chart approved by  
National Live Stock and Meat Board

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## Introduction

Properly used, your home freezer can help to keep the food budget down, add variety to meals, save time and work for you. For instance, you can:

1. Purchase large quantities of favorite foods such as frozen juice concentrates, poultry and meats when they are on sale.
2. Home freeze seasonal fresh fruits and vegetables.
3. Freeze breads—especially day-old breads as they cost less and freeze well. Freezing adds moisture back to the bread product.
4. Make better use of leftovers, which are always more appealing next week than the next day.
5. Bake several pies, cakes or cookie recipes instead of one. Additional servings can be frozen for later use.
6. Prepare favorite recipes in duplicate so that one can be eaten now and the other can be frozen and enjoyed at a later date.

Please take time to read your freezer's owner's guide and warranty as well as this freezer guide to obtain successful home freezing results.

### Microwave Ovens and Freezing

If you are fortunate enough to have both a microwave oven and freezer in your home, additional methods of food preparation are available to you. Specific uses of the freezer-microwave combination are:

1. Blanching vegetables in preparation for freezing.
2. Defrosting frozen bread doughs, meats, casseroles, and other frozen foods.
3. Cooking foods from the frozen state to the cooked state in the same freezer container.
4. Shortening the defrosting time of large quantities of frozen food such as turkeys.
5. Softening frozen foods such as ice cream, before serving.
6. Reheating home frozen dinners which you have created from leftovers of a previous meal.

Please read this guide for additional suggestions and directions on how the microwave oven can be used when preparing foods for freezing.

### Follow These Basic Freezer Rules

1. Read and use the specific freezing instructions for individual foods discussed in this guide.
2. Work under sanitary conditions to maintain the quality and safety of the food.
3. Freeze only top quality meats and freeze fruits and vegetables only at their peak of ripeness. Remember, your freezer will not improve the quality of meat, or compensate for underripe or "tired" fruits and vegetables.
4. Refrigerate meats, fruits and vegetables until ready to freeze. For maximum flavor and minimum vitamin loss, it is best to freeze them the same day as picked or purchased.
5. Cool foods before freezing.
6. Package foods in individual or family size portions. Use good packaging materials and techniques to make an airtight package. It makes little sense to spend money for foods and then use poor packaging materials and techniques.
7. Label all packages; include name of food, date, number of servings or weight. Keep a running inventory so you always know freezer contents.
8. Freeze only 2 to 3 pounds of fresh food per cubic foot of freezer space at one time.
9. Freeze packages in single layer on freezer shelves in upright freezers or placed against sides in chest freezers. Foods to be frozen should not be placed on top of those already frozen. Leave one inch space between packages until they are solidly frozen—usually overnight—then stack to save space.
10. Rotate foods. For the most economical use of your freezer, keep it full and use and replace foods two or three times a year.
11. Keep foods frozen until ready to use them. For best quality, flavor and texture do not refreeze thawed foods. In an emergency, foods that are very cold and still contain ice crystals may be refrozen but they will not have as high quality after refreezing and they should be used as soon as possible. Thawed fish, seafoods and casseroles never should be refrozen.





# Packaging

Proper freezer packaging materials are essential to maintain original food quality. Packaging materials must be waterproof so that liquids will not escape; moisture-vapor-resistant to prevent food from drying out. The cold dry air in your freezer will dry out improperly wrapped foods. Dried out portions show up as grey areas known as "freezer burn." This can cause meats not only to be dry, but also to be tough; and sometimes the fat becomes rancid. Odors and flavors can be transferred from strongly flavored to delicately flavored foods with poor packaging. Therefore, packaging materials should prevent air from passing through them, they should not absorb fats or liquids, and they should be easy to use and to store.

**NOTE:** Meats which are wrapped in butcher paper should be repackaged or overwrapped in freezer paper since butcher paper is not moisture-vapor proof.

There are many varieties of freezer packaging materials. Your choice depends in part upon what foods you plan to freeze and the particular reheating or cooking process which will be used. For example, avoid metallic and soft plastic freezer packaging for those food items that are to be reheated or cooked in the microwave oven. This will be a time saver since the food can then be heated in its freezer packaging. Refer to the special tips given in the freezer-microwave oven packaging section.

## Drugstore Wrap

When using sheet wrapping materials, such as specially-treated papers, aluminum foil, or films, wrap the food tightly to force out air. The best method is the drugstore wrap:

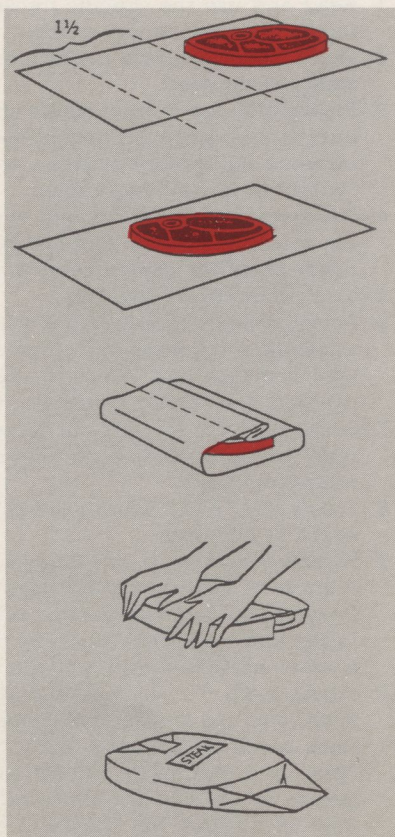
1. Use a sheet of freezer wrap about 1-1/2 times longer than food to be wrapped (long enough so edges may be folded down 3 times).

2. Place food in center of wrap. When using paper wraps, follow label directions indicating which side is to be placed next to the food. Put extra freezer paper over the bone ends to prevent puncturing of the wrapping.

3. Bring opposite two ends together above food and fold down in one-inch folds until wrap is tight against food. Except when using aluminum foil, seal the seam formed after folding with freezer tape (a special tape that sticks to wraps at freezing temperatures).

4. Expel air by molding foil to shape of food. With other wraps, squeeze wrap against food.

5. Turn package over. Fold end corners toward each other to form a point at each end, then fold ends toward center, making two tight folds over top. Secure with freezer tape. When using foil, crimp ends tightly to provide an air-tight seal.



Label each package clearly. Use special freezer marking pencils, pens or crayons so the label does not smear or rub off during storage. You can write on freezer tape, attach labels or tags with freezer tape, or write directly on some wraps.

## Freezer Packaging Materials

### 1. Sheet Wrapping Materials

- A. Heavy Duty Aluminum Foil is marked "for freezing" on the package. This is a good moisture-vapor-proof wrap that bans oxygen from food, is easy to mold, and does not require sealing with freezer tape. As you wrap using the drugstore method, mold or press foil to the food. Unless you use very heavy freezer foil, it is best to overwrap because foil may be punctured during storage. Regular-weight household foils should not be used for freezing because they tear or puncture very easily. Do not use foil to wrap salty foods such as cured meats, or those high in acid such as spaghetti sauce. These foods deteriorate foil and cause holes.

Freezer foil should be removed from those packages which will be reheated in the microwave oven. It may be more convenient and economical to wrap those foods in microwave safe packaging so that they can go directly from the freezer to the microwave oven. See the freezer-microwave oven section for safe packaging materials.

- B. Plastic Freezer Films are moisture-vapor-proof wraps. Seal these with freezer tape, overwrap for best results. (See #2 below.)
- C. Freezer Papers Waxed on One Side Only are satisfactory when storing foods for only one to two months. Most are moisture-vapor-resistant, but do not offer adequate protection for long-term storage. They should not be used with foods that are high in fats. Seal with freezer tape. Roasts and bulky packages should be overwrapped. Do not use regular household waxed paper.

- D. Coated and Laminated Papers are very good for long-term storage. Be sure to check label to see if the wrap is designed for long-term storage. Seal with freezer tape. It is not necessary to overwrap these packages.

### 2. Overwraps

A second layer of wrapping is used to protect the first wrapping material from tearing, puncturing, or becoming loose during storage.

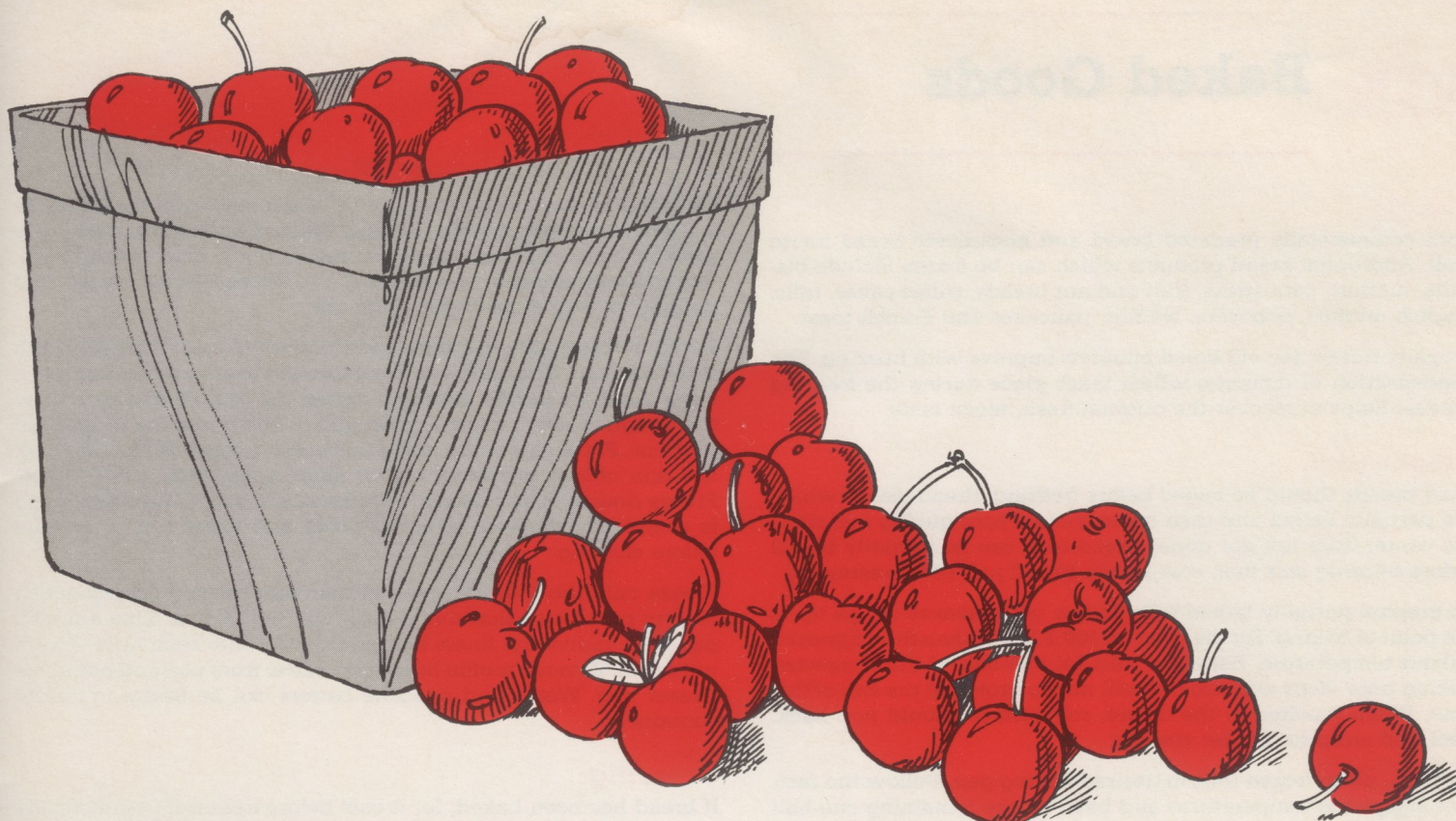
- A. Stockinette, or roll of cotton knit material, stretches to fit a package closely. When you first use stockinette, be sure to cut sufficient length to allow for shortening when stretched to fit over a package. To use, tie a knot in one end, slide stockinette over package, insert label, knot to close.
- B. Old Nylon Stocking also can be used to protect the wrap and to hold it close to the package. Use as you would stockinette.
- C. Freezer Bags can be used to hold several smaller packages.

### 3. Freezer Bags

- A. Bags in Boxes. Freezer bags fit into special folding boxes for protection during freezer storage. To seal bags, twist the top, fold end down and secure with special paper-covered metal twists, pipe cleaners or string. Remember that metal twists and pipe cleaners should be removed from those packages which will be heated in the microwave oven.
- B. Film-Type Freezer Bags are used without boxes, or several small bags can be stored in one larger bag. Freezer bags can be reused only if they can be thoroughly washed and are not punctured. Check bag seams carefully.

- C. Freeze-and-Cook Pouches (Polyester) may be used for freezing and then reheating foods by placing the pouch in boiling water or in the microwave oven. Must be sealed with a special electric heat sealer. They are excellent for foods frozen in sauces.





#### 4. Rigid Containers

Rigid Containers are probably the easiest to use and often the most economical, since most can be reused many times. Before purchase, check label for freezer use. Plastic freezer containers come in many shapes and sizes, but rectangular containers make better use of space than round ones. Foods may be reheated in polyolefin "boilable" plastic containers, since they withstand temperatures up to 240°F. See the freezer-microwave oven packaging section for information concerning the use of plastics in the microwave oven.

Plastic ice cube trays, used with or without dividers are good for homemade ice creams, to freeze small quantities of foods or liquids, such as soups. Purchase one or two plastic ice cube trays and reserve for such uses only. The metal ice cube trays of your refrigerator are specially coated so cubes can be easily released, but washing in hot water destroys this coating. Therefore, only plastic trays should be used.

Wide-mouth glass jars which permit removal of foods without complete thawing are available. Shortening and coffee cans with reusable plastic tops make good freezer containers for dry foods. Ice cream, milk and cottage cheese paperboard containers should not be reused for other foods because they have not been treated for long-term freezer storage.

#### Packaging Foods for Freezer-Microwave Oven Use

Follow the basic freezer rules and the packaging techniques given in this guide. Consider wrapping foods so that they can be cooked in the microwave oven with no or a minimum of rew wrapping. Follow these guidelines for the most efficient freezer-microwave use.

1. Foods frozen in cooking pouches designed to withstand boiling and freezing or conventional heat are safe for heating in the microwave oven. The pouch should be slit to allow steam to escape and set in a container to catch drippings. Do not attempt to cook in plastic storage bags. Remove food from plastic storage bag and cook in a microwave safe utensil.

2. Some plastic freezer containers can be used in the microwave oven on low power cooking (ex.: Freeze®). Foods with high sugar and fat content become very hot when cooked. These foods should not be heated in plastic freezer containers as they may cause the container to become soft, disfigured or pitted from the heat of the food. If in doubt about using a plastic container, transfer the food to a microwave safe utensil.
3. Remove all foil coverings and replace them with plastic wrap or waxed paper. Foods packed in foil containers deeper than 3/4 inch should be transferred to another container before heating. Commercially frozen dinners or home frozen dinners can be conveniently frozen and reheated in shallow foil trays less than 3/4 inch deep.
4. Large cuts of meat can be defrosted in the first quarter of defrosting time in moisture-vapor proof plastic or paper wrappings. Wrappings can easily be removed for the final defrosting period. If aluminum foil has been used as an exterior wrapping material, remove it before placing meat in the oven.

#### Amount of Food Which Can Be Frozen in One Day

There is a limit to the amount of fresh food which can be frozen in one day, because food should be cooled rapidly to a freezing-temperature. Overloading the freezer will raise the interior temperature above 0°F, slow down the rate of freezing, reduce the quality of the food being frozen, and place additional strain on the freezer mechanism.

Freeze only 2-3 pounds of fresh food per cubic foot of freezer space at one time. This will enable fresh foods to freeze within twenty-four hours. For example:

Freezer Size	Maximum Quantity of Fresh Food Per Day
10 cu. ft.	20-30 pounds
15 cu. ft.	30-45 pounds
20 cu. ft.	40-60 pounds

Keep space between packages so air can circulate between them. Each package should be in direct contact with a refrigerated surface. Leave the food in this position for twenty-four hours, then rearrange and stack as desired.





# Baked Goods

## Breads

Both commercially prepared bread and homemade bread freeze well. Additional bread products which can be frozen include biscuits, muffins, corn sticks, fruit and nut breads, coffee cakes, rolls, English muffins, popovers, waffles, pancakes and French toast.

Properly frozen day-old bread products improve with freezing. The condensation of moisture which takes place during the freezing process helps to recover the original fresh, moist taste.

## Preparation

Most breads should be baked before freezing. Bread loaves which are partially baked and then frozen yield a poor quality loaf since the center does not get done. (Some rolls can be partially baked before freezing and then completely baked just before serving.)

To prepare partially baked rolls, follow your favorite recipe up to the point of baking. Set the oven for 100°F **lower** than the suggested baking temperature. Bake the rolls for one-half of the suggested baking time. Rolls will rise but will not be brown at the end of this time. When touched in the center, roll surface should pop back. Cool and wrap for freezer storage.

To bake, place frozen rolls in desired baking pan. Follow the recipe's suggested temperatures and bake for the remaining one-half of the baking time. It may be necessary to bake the rolls an additional ten minutes to achieve the desired brownness.

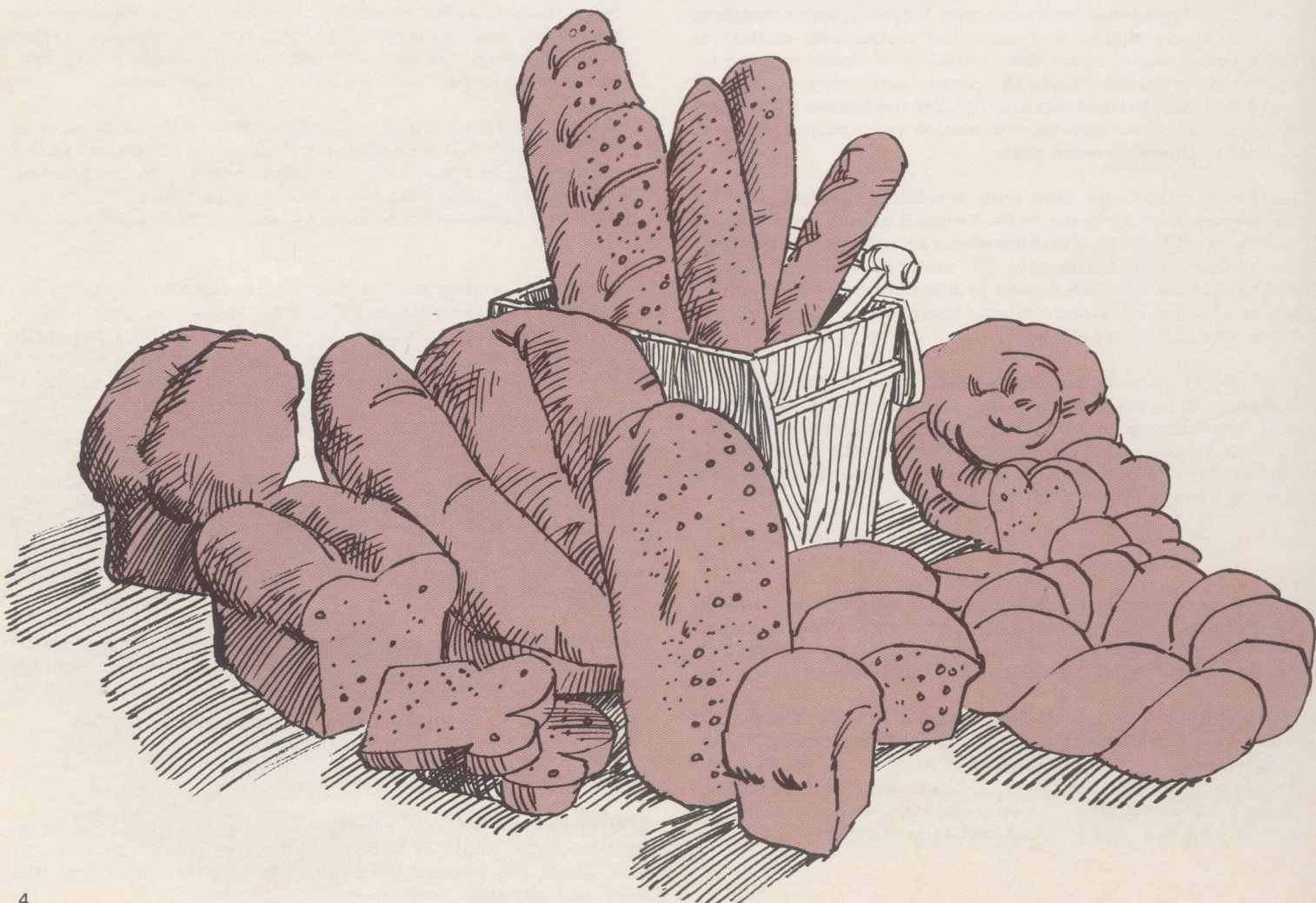
Unbaked batters and doughs can be frozen; however, there may be a slight loss of volume when baked. Batters and doughs should be thawed before baking; therefore, this is not a time savings idea. Yet as a money saver, you may want to freeze leftover batters and doughs instead of throwing them out.

It may be necessary to increase the amount of yeast if bread dough is to be frozen. You will have to experiment to determine how much extra yeast should be added to obtain the desired quality. Allow the dough to rise, punch it down and divide it into individual loaf portions. Pat each portion into a thin oblong shape. When thawing, the thin oblong shape will thaw much faster than a loaf shape. Freeze dough. Bread dough will rise as it thaws. When the dough is completely thawed, punch it down and allow it to rise again before shaping.

Freeze only those quick bread batters that contain double-action baking powder so that the volume will not be lost. Line a muffin pan with individual liners and pour batter into each liner. Freeze until firm. Remove muffin liners and batter from pan and place in a freezer bag. Waffle and pancake batters can be frozen in freezer containers.

## Freezing

If bread has been baked, let it cool before freezing. Commercially prepared bread should be rewrapped in a freezer bag to prevent moisture loss. Homemade bread products should be packaged in freezer wrap or bags as suggested in the following freezer chart. Label package and freeze.





## How to Freeze Bread Products

Bread Product	To Freeze	To Use**		Storage (months)
		Conventional Method	Microwave Oven Method*	
Biscuits Muffins Rolls	Baked product: Package in freezer wrap or bags.	Baked products may be placed unwrapped on baking sheet in 375°F oven for 10-15 minutes.  Baked products may be placed wrapped in aluminum foil in a 400°F oven for 15-20 minutes.	Wrap baked products loosely in wax paper or paper towels. Heat on low or defrost power level. Rotate 1/2 turn after 1/2 of defrosting time.	2 to 3
	Unbaked products: Allow them to freeze until firm in/on pan. Package in freezer wrap or bags.	Unbaked biscuits and rolls should be thawed and baked for 1/2 of the cooking time at an oven temperature 100°F lower than the suggested oven temperature.  Thaw muffin batter and bake at recommended temperature and time settings.	Not recommended.	1
Bread Toppings or Croutons	Cut bread in 1/2 inch cubes. Dry cubes in 325°F oven or microwave oven. During last few minutes of drying time sprinkle cubes with garlic salt, herb seasoning and melted butter. Freeze in freezer bag.	No preparation necessary for use.	No preparation necessary for use.	6
Coffee Cake Coffee Rings	Wrap baked product in freezer wrap.	To serve at room temperature, thaw, wrapped, on cake rack for 1-3 hours.  To serve warm place unwrapped frozen coffee cake in 350°F oven for 20-25 minutes. Frost coffee cake after heating.	Defrost or reheat coffee cake in freezer wrap or in loosely wrapped wax paper. Heat on low or defrost power level. No need to rotate.	3 to 4
Brown Bread (steamed)	Wrap baked product in freezer wrap.	Thaw, wrapped, at room temperature 1 hour. Unwrap and rewrap in aluminum foil, unless bread was wrapped in foil for freezing. Heat at 300°F for 15 to 20 minutes.	Bread to be defrosted should be wrapped in freezer paper, plastic bag or wax paper. Remove any metal ties. Heat on low or defrost power level. Turn loaf over after 1/2 of defrost time.	3
French Toast	Separate pieces with freezer wrap or waxed paper. Wrap all in freezer wrap or freeze on tray until firm then wrap.	1. Toast frozen or thawed slices. 2. Heat, unwrapped on baking sheet in 375°F oven, for 5 to 8 minutes. For soft tops spread with softened butter or margarine before heating.	Place French toast on paper towel. Heat on low or defrost power level. Rotate food 1/2 turn after 1/2 of cooking time. French toast will be soft, not crisp.	2
French or Italian Bread (loaf)	Cut in 1 inch diagonal slices, almost to bottom crust. Spread cut surfaces with butter. Sprinkle with grated cheddar cheese, if desired. Wrap in freezer foil, plastic wrap or freezer wrap depending on the method of heating.	Heat, wrapped in foil, at 400°F for 30 to 45 minutes. For crusty top, open foil during last 10 minutes.	Place wrapped loaf in oven. Heat on low or defrost power level. Rotate 1/2 turn after 1/2 of cooking time.	1
Pancakes Waffles	Separate layers with freezer wrap or wax paper. Wrap in freezer wrap or bag.	1. Toast frozen or thawed slices. 2. Heat, unwrapped, on baking sheet in 375°F oven for 5-8 minutes. For soft pancake tops, spread tops with butter and heat in oven.	Place pancakes or waffles on paper towels. Heat on low or defrost power level. Rotate food 1/2 turn after 1/2 of cooking time. Pancakes or waffles will be soft not crisp.	2
Yeast Breads	Wrap in freezer wrap or freezer bag.	1. Toast frozen or thawed slices. 2. Heat in 375°F oven, wrapped in foil, for 20 to 25 minutes.	Place wrapped loaf in oven. Heat on low or defrost power level. Rotate loaf 1/4 turn several times during the cooking time.	6

\*For best results, use a defrost or low power setting, if available. Follow oven manufacturer's instructions for specific power and time settings.

\*\*Not necessary to thaw before heating unless noted.

## Cakes

Angel food, chiffon, sponge, shortening-type and fruit cakes all freeze well, as do cupcakes, cake rolls, layers and sheet cakes. One-bowl cakes, such as butter or pound cake which have high proportions of sugar and fat, freeze extremely well and retain their moist quality. Fruit cakes improve in flavor when frozen.

## Preparation

For best results, cakes should be frozen after baking. Batter which is frozen, must be completely thawed before baking to permit even rising. Although the batter may be completely thawed, the leavening agent may be affected, making it difficult to achieve high-volume cakes and a satisfactory product.

Some spices and flavorings do not freeze well. When preparing a cake batter which contains cloves, reduce the amount of cloves used. This spice strengthens during the freezing process. Use pure vanilla instead of the artificial flavoring since the latter becomes bitter during freezer storage.

## Freezing

To freeze a baked cake, cool it as quickly as possible on a cake rack. Cake should be wrapped in moisture-vapor-proof wrapping and frozen until firm. When firm, pack cake in a freezer carton or metal cake tin to prevent crushing.

A frosted cake which is iced with a butter or candy-type icing freezes well. Seven minute and boiled or fluffy white frostings can be used however they have a shorter storage period (1 month) and are more difficult to store. Do not freeze cream or custard type frostings as they tend to seep into the cake upon thawing.

Before wrapping, freeze a frosted cake until firm. When the frosting is firm, package the cake in moisture-vapor-proof wrapping. Toothpicks should be inserted around the edge of cakes iced with fluffy frostings to prevent the wrapping from sticking to the frosting. You may wish to place this package in a freezer carton or metal container to prevent crushing.

## Thawing Cakes

Unfrosted cake can be thawed at room temperature, wrapped, in about an hour or in a 275°F oven wrapped in aluminum foil for 20-25 minutes. The latter method helps to redistribute moisture; however, the cake can become dried out if left in the oven past the suggested time. Unfrosted cakes may also be defrosted in a microwave oven following the oven manufacturer's instructions.

Frosted cake should be unwrapped before thawing so that the icing is not damaged by the freezer wrapping. To prevent the icing from sweating during the thawing process, cover the cake loosely with plastic wrap or a cake lid. Do not permit the covering to touch the frosted surface. Frosted two layer cakes will thaw in 1-2 hours; cupcakes in 30 minutes.



## How to Freeze Cakes

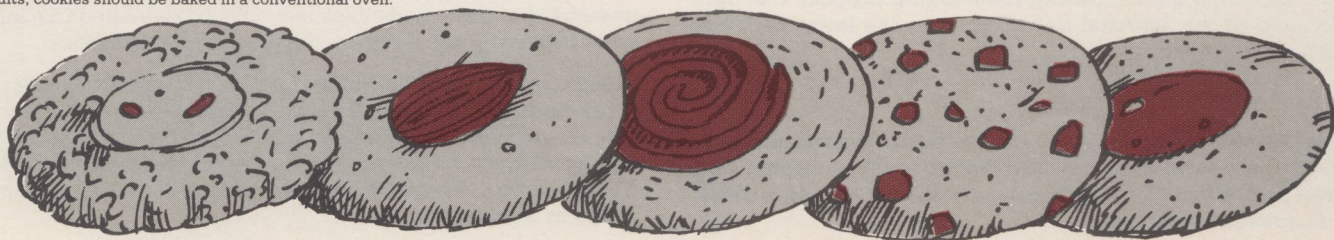
Cakes and Frostings	To Freeze	To Use		Storage (months)
		Conventional Method	Microwave Oven Method	
Cake Rolls, Sponge	Fill sponge cake roll with whipped cream, dessert topping mix prepared according to package directions or softened ice cream. Roll up. Freeze until firm. Wrap, label, freeze. Cake roll may also be frozen unfilled.	Thaw whipped cream or whipped topping-filled cakes in refrigerator while wrapped.	Thaw, unwrapped on low or defrost setting for recommended time. Rotate 1/2 turn several times during defrosting. Watch the icing and filling carefully so it doesn't melt. Allow cake to stand for 2-5 minutes before serving.	2 (filled) 6 (unfilled)
Cupcakes	Pack in freezer containers, freezer bags or wrap and seal cupcakes individually in freezer paper.	Thaw cupcakes, wrapped, making sure wrapping does not touch frosting surface.	Arrange cupcakes on plate in a circular formation. Thaw, unwrapped, on low or defrost setting for recommended time. Rotate 1/2 turn several times during defrosting. Allow to stand 2-3 minutes before serving.	2
Frosted Cakes	Cut cardboard circle 1 inch larger than cake. Cover with foil, secure with tape. Set cake on circle on baking sheet or tray. Freeze until firm. Remove from tray. Wrap, label, freeze.	Thaw, wrapped, on cake rack at room temperature—about 2 hours.	Thaw, unwrapped, on low or defrost setting for recommended time. Allow cake to stand 2-5 minutes before serving.	2
Butter or Candy-Type Frosted	Cut cardboard circle 1 inch larger than cake. Cover with foil, secure with tape. Set cake on circle on baking sheet or tray. Freeze until firm. Remove from tray. Wrap, label, freeze.	Thaw, wrapped, on rack at room temperature—about 3 to 4 hours. If cake is decorated, to avoid frosting sticking to wrap and to prevent moisture from collecting on frosting, unwrap and cover with cakekeeper lid or large bowl.	Thaw, unwrapped, on low or defrost setting for recommended time. Allow cake to stand 2-5 minutes before serving.	3
Whipped Cream Frosted	Cut cardboard circle 1 inch larger than cake. Cover with foil, secure with tape. Set cake on circle on baking sheet or tray. Freeze until firm. Remove from tray. Wrap, label, freeze.	Thaw, unwrapped, in refrigerator.	Thaw, unwrapped, on low or defrost setting for recommended time. Watch icing carefully so that it doesn't melt. Allow cake to stand 2-5 minutes before serving.	up to 1
7-Minute Boiled or Fluffy-Type Frosted	Place frosted cake, on cardboard circle, in cardboard bakery box or special cake freezer container. Overwrap bakery box with foil or freezer wrap. Freeze.	Thaw, wrapped, on cake rack at room temperature for 3-4 hours. Use as soon as possible after thawing. These cakes do not hold as well as butter-frosted cakes. To keep overnight, cover with	Thaw, unwrapped, on low or defrost setting for recommended time. Watch icing carefully so that it doesn't melt. Allow cake to stand 2-5 minutes before serving.	up to 1
Fruitcake	Wrap fruitcake in moisture-vapor-proof wrapping. For decorative purposes wrap the cake in plastic wrap and then overwrap with colored cellophane. Freeze.	Thaw wrapped on cake rack at room temperature for 3-4 hours.	Thaw, unwrapped, on low or defrost setting for recommended time. Allow cake to stand 2-5 minutes before serving.	12

## How to Freeze Cookies

Cookies can be frozen baked or unbaked depending on your preference. Either method of freezing will give satisfactory results. For best results, choose recipes that are rich and high in fat. Use the following chart as a guide when preparing cookies or cookie dough for freezing.

Cookies	To Freeze	To Use*	Storage (months)
Baked	Cool. Place in coffee cans with reusable lids, or rigid freezer containers. Separate soft or fragile cookies with double pieces of foil. Freeze crisp cookies separately from soft cookies. Freeze strong-flavored cookies in separate containers. If desired, wrap bar cookies, such as brownies, in one piece.	Thaw crisp and bar-type in container. Others may be unwrapped if desired. Then cookies do not need to be thawed.	9 to 12
Cream Puffs, Eclairs	Freeze baked and cooled cream puffs or eclairs shells on baking sheet until firm. Pack in freezer containers or bags. If desired, frost tops with chocolate butter cream frosting or freeze filled with ice cream.	Thaw, wrapped, at room temperature 1 hour. Fill with cream filling. Serve or refrigerate until ready to serve. If filled with ice cream, let stand at room temperature 10 minutes or in the refrigerator 30 minutes before serving.	1 to 2
Unbaked Bar	Spread dough evenly in greased pan and cover with plastic wrap or foil. OR Freeze dough in wide-mouth container which has an air tight lid. Seal and freeze.	Bake frozen dough at temperature suggested by recipe. A few extra minutes may be necessary to complete baking. Allow dough to thaw just enough for ease of spreading. Spread dough in pan and bake.	6 to 8
Drop	Drop dough on cookie sheet. Freeze until firm, then remove and place in rigid freezer container. Cover top layer with a double thickness of freezer foil or plastic wrap, then with container lid. OR Form dough, such as chocolate chip, oatmeal, butter cookies, into rolls. Wrap.	Bake while frozen, according to recipe directions.  Thaw, wrapped, at room temperature, 15 to 30 minutes. Cut in slices 3/4 to 1 inch thick; cut each into quarters. Place on cookie sheets (greased if recipe so directs). Bake as usual.	6 to 8
Refrigerator	Shape into rolls, wrap in freezer foil or plastic wrap.	Thaw, wrapped, 10 to 20 minutes or until soft enough to slice.	6 to 8
Rolled	Cut cookies. stack in freezer container with two sheets of freezer paper or foil between layers. OR Roll out dough on foil. Place on flat tray or cookie sheet. Cover with sheet of foil or plastic wrap. Repeat stacking layers of rolled dough with foil or plastic wrap. Wrap, tray included, in freezer foil or place in bag.	Bake while frozen, according to recipe directions.  Remove top sheet of dough. Let stand 15 minutes or until soft enough to cut into desired shapes.	6 to 8

Most cookie dough can be thawed in the microwave oven. Follow the oven manufacturer's instructions for specific power and time settings. For best results, cookies should be baked in a conventional oven.





## Pies and Pastry

Most pies, except cream and custard, freeze well. Custard and cream pies do not freeze well because they separate and curdle. Pies may be frozen in any of the following forms: baked, unbaked or with filling and pie shell frozen separately.

## Preparation for Freezing

A baked pie keeps twice as long as an unbaked pie. Remove the pie from the oven as soon as the top crust becomes light brown. Additional browning will take place during the reheating process. Allow the pie to cool completely before freezer storage. To protect the crust, invert a paper plate over the top of the pie surface, wrap in aluminum foil and overwrap pie by placing it in a freezer bag.

An unbaked pie is easier to freeze; however, if not properly prepared for freezing, it may develop a soggy undercrust. Pumpkin pie should be frozen unbaked. If frozen baked, the custard will separate and curdle. Fresh fruit, such as apples, apricots and peaches, should be treated with an ascorbic acid mixture to prevent browning. Refer to the "fruit section" of this booklet for specific instructions. Berries should be treated with sugar and flour before adding to the pie pan. Other thickening agents such as tapioca or cornstarch do not give satisfactory results after freezing. More flour is required since fruits become juicier. If the pie filling calls for cloves, reduce the amount used as this spice strengthens in flavor with freezing. Roll out pie crust as usual. Spread melted butter or margarine or a slightly beaten egg white over the bottom crust to prevent soaking. Cool cooked fillings before pouring into pie shells. Hot or warm filling will soak the pie crust. Do not cut slits in the top crust.

## How to Freeze Pies and Pastry

Pie	To Freeze	To Use		Storage (months)
		Conventional Method	Microwave Oven Method	
Double Crust Pies, Unbaked	Prepare as usual, except do not cut slits in top crust. Invert paper plate over top of pie surface. Wrap in double thickness of freezer foil or paper. If pie is fragile and hard to handle, freeze before wrapping.	Unwrap, cut slits in top crust. Bake frozen in glass pie plates, at 400°F for 50 to 70 minutes; in dull aluminum pans, or shiny foil pans at 425°F for same time. If rim of crust browns too quickly, cover with strips of foil.	Heat uncovered at high power for oven manufacturer's recommended period of time, (approximately 10 minutes). Complete remainder of cooking time in conventional oven at 450°F for 15-20 minutes or until crust is brown.	2 to 4
Double Crust Pies, Baked	Cool, wrap in foil or slip into freezer bag. Label. Place level in freezer to avoid juice dripping.	Unwrap. Heat in 325°F oven on lowest shelf until warm (approximately 35 to 40 minutes). Pie may be thawed unwrapped at room temperature for 6-8 hours.	Heat uncovered on low or defrost power level for oven manufacturer's recommended period of time. Turn pie 1/4 turn every 3 minutes. Allow pie to stand before serving.	4 to 6
Single Crust Pies, Unbaked	Line pie plate with pastry. Fill pie crust and cover with double thickness of foil. Freeze until firm. Wrap, label and freeze.	Unwrap. Thaw at room temperature 1 hour, then bake as usual.	Defrost using appropriate power level setting and time suggested by oven manufacturer. Bake as directed in a conventional oven.	2 to 4
Chiffon Pies	Refrigerate until set, then freeze until firm. Cover with inverted foil or paper plate, seal edges with freezer tape. Place in freezer bag and place pie in cardboard box for protection.	Unwrap. Thaw in refrigerator 3 to 4 hours.	Defrost using appropriate power level setting and time suggested by oven manufacturer.	1 to 2
Meringue Pies	Freeze pie without meringue topping. Cover surface with double sheet freezer wrap. Freeze until firm. Wrap, label, freeze.	Let stand wrapped at room temperature 1 hour. Unwrap, top with meringue. Bake at 425°F for 4 to 5 minutes. Or top frozen pie with meringue, bake at 350°F for 20 minutes. Let stand at room temperature for 1 hour. Serve or refrigerate.	Defrost using appropriate power level setting and time suggested by oven manufacturer. Top with meringue recipe suggested by oven manufacturer and cook at suggested power level and time settings.	2 to 3
Pastry, Unbaked, Pastry circles	Roll out pastry to desired size. Cut cardboard to the same size and cover with plastic wrap, wax paper or foil. Place pastry on top of covered cardboard, cover with two layers of plastic wrap, add another piece of pastry and repeat the process. Put pastry stack in freezer bag and tie shut. Freeze.	Remove top pastry circle on plastic wrap (which leaves a sheet of plastic wrap covering the next circle). Let stand 15 minutes until pliable. Place in pie plates, plastic wrap side up. Peel off plastic wrap, ease pastry into pie plates, being careful not to stretch. Bake as usual.	Follow the conventional method; however, pastry may be defrosted using the power level and time suggested by the oven manufacturer. Pastry can be baked following oven manufacturer's instructions.	2
Pastry-Lined Pie Plates	Line pie plate with pastry, flute edge to use with single crust pies. Do not prick bottom. Stack 3 or 4 together separated with 2 sheets of plastic wrap. Place in freezer bag and tie sheet.	Bake or fill while frozen. For baked shells, prick bottom and sides with tines of fork before baking.	Prick bottom and sides of pastry with tines and bake pastry following oven manufacturer's instructions.	2
Crumb Crusts	Freeze, baked or unbaked, follow pastry directions.	Fill frozen or thawed.	Same as conventional method.	2
Fruit Fillings	1. Freeze separately in containers, or 2. Line pie plate with foil or freezer paper, letting edges extend 5 inches beyond rim. Fill with filling. Freeze until firm. Remove from pie plate. Seal edges together, making double fold.	1. Partially thaw in container, then turn into pastry lined pie plate. Bake as usual. 2. Place filling, while frozen, in pastry-lined pie plate. Cover with top crust. Bake as usual. Allow approximately 10 to 20 minutes longer than for unfrozen fillings.	1. Pie fillings may be defrosted using the power level and time setting suggested by oven manufacturer.	2 to 3

A pie shell made from pastry or crumbs can be frozen successfully. Several methods of packaging can be used.

- 1) Baked pastry should be cooled immediately and frozen in rigid containers. Container should be overwrapped with moisture-vapor-proof wrapping.
- 2) Unbaked pastry can be frozen in flat rounds or shaped within a pie pan. To freeze in flat rounds, roll pastry out to size desired. Cut a piece of cardboard the same size and cover with plastic wrap, waxed paper or foil. Place pastry on top of covered cardboard, cover with two layers of plastic wrap, add another piece of pastry and repeat process until several layers have been formed. Put pastry stack in freezer bag and tie shut. Freeze. This process can also be used with pastry shaped in a pie pan. Frozen pastry shells can be stacked one inside another as long as the same size aluminum pans are used. (Cardboard can be omitted for this process.)

Frozen pie filling takes up less freezer space and can be easily combined with fresh or frozen pastry. For convenience, freeze the filling in a foil lined pie pan. When frozen, remove filling from pan, overwrap with freezer paper and return to the freezer.

Follow this chart for specific information concerning the preparation, thawing and using of frozen pastry and pie filling.





# Dairy Products



Most dairy products can be frozen. Some require special handling before freezing, while others may be frozen just as purchased. (see chart) All should be **thawed slowly in the refrigerator**.

## Butter and Margarine

When buying butter or margarine for freezing, make certain that it is fresh. Butter or margarine sold in retail markets may have been in storage several months. Butter or margarine should be wrapped in moisture-proof wrapping to prevent the change of flavor due to oxidation. Follow the specific chart instructions for wrapping and storage.

## Cheese

Some natural cheeses can be frozen in small pieces. Some Colby Cheeses freeze satisfactorily, but others become mealy. Blue Cheese crumbles, but is satisfactory for use in salad dressings or dips. Cream Cheese becomes crumbly but is satisfactory frozen when mixed with other ingredients for sandwiches or dips.

For best results, cheese should be frozen in the original, unopened package. Packages which are larger than 1/2 pound should be cut into smaller pieces and rewrapped tightly. Use moisture-proof wrap to prevent drying which is caused by evaporation. Freeze quickly at 0°F or lower. Slow thawing in the refrigerator in an opened package is recommended; if thawed at room temperature moisture condenses on the cheese and causes it to become pasty. For optimum flavor, use cheese as soon as possible after thawing.

Grated cheese or dry cottage cheese should be frozen in small freezer jars or containers. Dry cottage cheese should be thawed in the refrigerator before using; grated cheese need not be thawed before using.

Review the freezer dairy chart for specific freezing instructions and storage times.

## Heavy Cream and Milk

Milk loses its homogenization (the fat separates out) during freezing and has a less desirable taste. Whole pasturized, homogenized milk, which has been frozen, may not taste as good as fresh milk when used as a beverage, but it most acceptable for cooking.

The fat in cream separates out during freezing, but separation may be discouraged by adding sugar. Sweetened cream or cream with fat separation does not whip; however, it is satisfactory for use in cooking. Individual servings of whipped cream freeze well.

Thaw both milk and cream in the refrigerator to discourage separation and spoilage.

## Cultured Dairy Products

Sour cream, plain yogurt, and buttermilk, which are cultured dairy products, do not freeze well. Freezing these products causes separation or the loss of their smooth texture.

Fruit-flavored yogurt can be frozen successfully if kept no longer than one and one-half months. Thaw yogurt in the refrigerator.

## Ice Cream: Commercial or Homemade

Commercial ice cream can be frozen for up to three weeks without overwrapping. For longer storage, the product should be overwrapped with moisture-vapor-proof paper.

Homemade ice creams which have a cooked custard, evaporated milk, gelatin, junket rennet or a high percentage of cream base freeze well. Package as described in the dairy products chart.

## Eggs

For best results when freezing, make sure they are fresh; and avoid those eggs which have cracks in the shell.

Whole eggs, or eggs separated into yolks and whites freeze well. Eggs must not be frozen in the shell because they expand during freezing, causing the shell to crack. For best results when freezing, make sure eggs are fresh; do not use eggs which have cracked shells. Whole eggs or yolks alone must be combined with salt or sugar (depending on the final end use) before freezing to prevent coagulation and ropiness. Frozen thawed egg whites beat up to excellent volume and may be used for angel food cakes, meringues, seven-minute frostings and other recipes.

Eggs should be frozen in the quantity or amount that will be used at one time. For convenience, whole eggs, yolks or whites can be frozen in an ice cube tray. When solid, eggs can be removed from the tray and packaged in a freezer bag. Each cube holds approximately one whole egg, two egg whites or two egg yolks. Use thawed eggs within a 24 hour period. Thawed eggs cannot be refrozen as they spoil very easily.

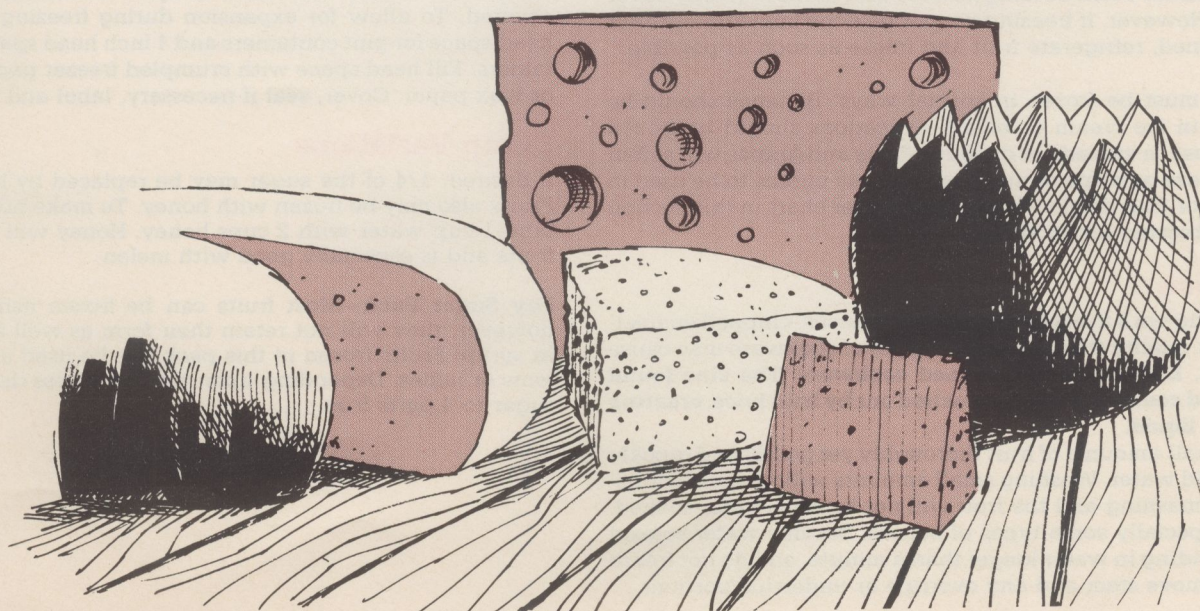
## Measurements for Frozen Eggs

- 1 cup thawed whole eggs = 5 or 6 fresh eggs
- 3 tablespoons thawed whole eggs = 1 fresh egg
- 1 cup thawed egg yolks = 14 to 16 fresh yolks
- 1 tablespoon thawed egg yolk = 1 fresh yolk
- 1 cup thawed egg whites = 7 or 8 fresh whites
- 2 tablespoons thawed egg white = 1 fresh white

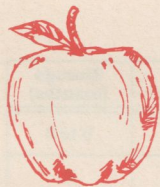


## How to Freeze Dairy Products

Dairy Products	To Freeze	To Use	Storage (months)
Butter, Margarine	Freeze in original waxed cartons. To keep longer than 1 month, overwrap.	Thaw, wrapped, in refrigerator.	5 to 6
Cheese Natural Brick, Camembert, Cheddar, Edam, Gouda, Liederkranz, Mozzarella, Muenster, Parmesan, Port Salut, Romano, Swiss	Cut in 1/2 to 1 pound pieces, 1/2 to 1" thick. Wrap in freezer wrap. Freeze in single layer. Then place in freezer bag to save space. Individually foil-wrapped wedges, such as Camembert do not need to be rewrapped.	Thaw, wrapped in refrigerator. When thawed, hold at room temperature about 1 hour to bring out flavor.	6
Processed	Freeze in small packages. Separate slices with freezer wrap for easy removal.	Thaw, wrapped, in refrigerator.	1 to 2
Unripened Cottage Cheese (Dry)	Freeze dry cottage cheese, salted if desired, in rigid containers. Leave 1/2" head space. (Creamed cottage cheese does not freeze well. It becomes crumbly and mealy.)	Thaw, wrapped, in refrigerator. May be thawed at room temperature, if used immediately. Serve plain, or add sweet or dairy sour cream.	2 to 3
Cream (Pasteurized) Heavy (35 to 40% Butter Fat)	For a smoother product and to discourage fat separation, add 1 tablespoon sugar to each cup cream before freezing. Freeze in 1/2 pint rigid containers or glass freezer jars. Leave 1" head space.	Thaw, covered, in refrigerator.	1
Whipped	Whip and sweeten cream to taste. Drop individual-serving-size mounds on chilled baking sheet; freeze until firm. Package in freezer bags or rigid containers.	Place, unthawed, on top of the dessert. Thaws in 10 to 15 minutes.	1
Milk, homogenized	You can freeze milk purchased in 1 quart wax-coated containers. For milk purchased in 2 quart paper containers, remove 1/2 cup to allow for freezing expansion. Seal top with freezer tape. The flavor may not be as good as fresh milk, but it is satisfactory for use in cooking.	Thaw in refrigerator.	3 weeks
Yogurt (fruit flavored only)	Freeze in original container.	Thaw in refrigerator. Stir before using.	1-1/2
Ice Cream	Commercially prepared ice creams may be stored in original carton for 1 month. For longer storage, overwrap with freezer wrap. Package homemade ice creams in rigid wide-mouth containers. Leave 1/2" head space. Place plastic wrap directly on surface, then cover with lid.	Remove from freezer 10 to 15 minutes before serving or place in refrigerator for 30 minutes. After serving, cover exposed surface of remainder with piece of foil or plastic wrap cut to fit.	1 to 2
Eggs Whole, for use in unsweetened recipes (scrambling, omelets)	Gently stir eggs with fork, to mix yolks and whites. Stir in 1/2 teaspoon salt for each 1 cup eggs (5 or 6). 1. Freeze in ice cube trays until firm. Remove from tray when frozen and pack in freezer bag. OR 2. Package in recipe-size amounts in freezer bags or 1/2 pint rigid containers. Leave 1/2" head space in wide-mouth containers, 3/4" in narrow top jars. Be sure to label packages with quantity and that salt was added.	Thaw, wrapped, in refrigerator or if packaged in plastic bags under cold running water. Stir before using. Use thawed eggs promptly, they spoil quickly. Adjust salt in recipe to allow for amount used in freezing. To Scramble: Treat as fresh eggs.	6 to 12
Whole, for use in sweetened recipes (Cakes, Custards)	Follow "to freeze in unsweetened recipes" procedure but omit salt. Add 1 tablespoon sugar or corn syrup for each 1 cup eggs. Be sure to label these eggs as sweetened.	Thaw as for "to use in unsweetened recipes." Adjust sugar or corn syrup in recipe to allow for amount used in freezing. Frozen, thawed, sweetened eggs may be used in mixes.	6 to 12
Yolks	Prepare as for whole eggs, but stir into each 1 cup yolks 1 teaspoon salt or 1 tablespoon corn syrup.	Thaw as for whole eggs.	6 to 12
Whites	Freeze without stirring or adding salt or sugar. Freeze in recipe-size amounts. Be careful not to include any egg yolk. Even a drop will prevent whites from whipping to full volume.	Thaw as for whole eggs. For best volume, let thawed egg whites stand at room temperature for 1 hour before beating.	6 to 12



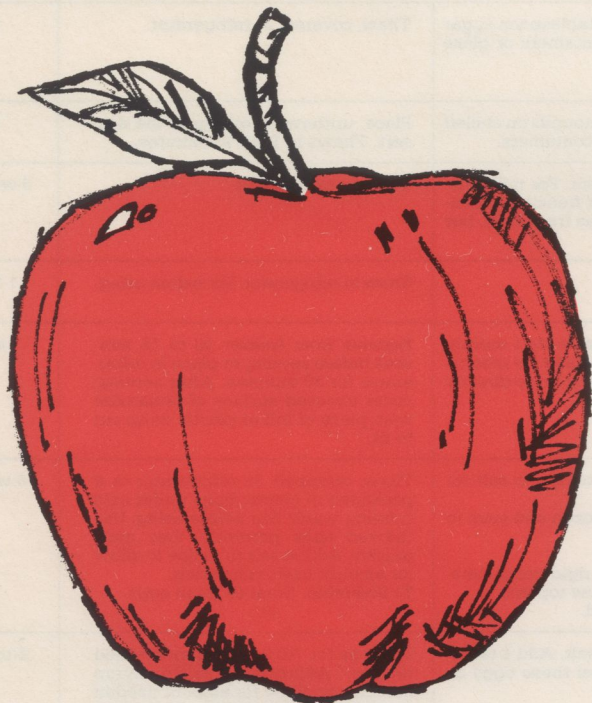




# Fruits

## Selection

Most fruits will freeze well but certain varieties freeze better than others. To find out the best variety for freezing in your area, contact your county agent or state agricultural college. If you do not know the variety, select fruits for freezing as you would for fresh eating; fruit which has a deep color, firm texture and pronounced aroma. For best quality, use most frozen fruits within 8 to 12 months and frozen citrus fruits within 4 to 6 months.



Freezing cannot improve the original quality of fruit or any food; underripe fruit will lack flavor while overripe fruit may have an "off" or decayed flavor. Most fruits are best when allowed to ripen on the vine, bush or tree; however, apricots, peaches, plums, figs and many types of berries become soft when ripened on the plant. These fruits should be picked at the "firm-ripe" stage and allowed to stand overnight on papers in a dark, clean place.

Speed is essential when freezing fruits so that the best quality flavor is retained. However, if freezing cannot be done immediately after fruit is obtained, refrigerate fruit and freeze as soon as possible.

Some fruits must be frozen in special ways. Bananas should be frozen only in ice cream or bread; avocados should be frozen mashed for use in spreads or desserts. Pears and grapes will soften if frozen. Freeze overripe or underripe fruit as purées to be used in jams, jellies or fruit drinks. Follow the freezer chart in this section for specific freezing instructions.

## Preparation

When working with fruits never use iron utensils, chipped enamelware or poor quality tinware—these types of cookware may cause "off" flavors. **Do not use galvanized cookware. The zinc found in galvanized cookware can be leached out by fruit juice, creating a poisonous liquid.**

1. Wash small amounts of fruit thoroughly yet gently and quickly in icy cold water. Washing small amounts will minimize bruising and mashing and the fruit will not become water-soaked. Fruit, especially some types of berries, become water-soaked after standing in water longer than a minute, and do not freeze well. Remove stem and any overripe or underripe portions.

2. Some fruits such as apples, peaches, pears will discolor or darken when exposed to air. These fruits should be treated within a solution which contains 1 teaspoon ascorbic acid and 1 tablespoon citric acid mixed in 1 gallon of cold water. After the fruit is peeled and prepared, place it in this solution for several minutes. Remove and place it in a freezer container and continue freezer preparation. It may be convenient to use a slotted spoon to add and remove fruit from the solution. Additional ascorbic acid should be added to the sugar or syrup solution to prevent discoloration.

If a commercial ascorbic acid mixture is used, follow the manufacturer's directions for specific amounts to dissolve in water.

3. **Drain** washed fruit on cookie sheets or trays which have been lined with paper towels.
4. Refrigerate, if possible, to firm the fruit.

## Packaging

Select the desired pack (see fruit freezing chart) and package accordingly.

**Syrup Pack**—There are several concentration levels of syrup packs. Heavier syrup concentrations prevent the fruit from being crushed and preserve the fruit form. This syrup concentration is good for dessert fruits. Lighter syrup concentrations permit natural fruit flavor and juices to come through. Choose the lightest syrup possible for packaging to reduce the intake of extra calories.

Type of Syrup Solution	Amount of Sugar	Amount of Water	Yield of Syrup
Light Syrup (30%)	2 cups	4 cups	5 cups
Medium Syrup (40%)	3 cups	4 cups	5-1/2 cups
Heavy Syrup (50%)	4-3/4 cups	4 cups	6-1/2 cups

Combine sugar and warm water, stirring until sugar dissolves. Chill, covered, in refrigerator. Syrup must be **cold** before adding fruit. Fruit which discolors easily should be pretreated as described previously and each quart of syrup solution should have one of the following added just before use: 1/2 teaspoon ascorbic acid, 4 (100 mg) tablets of vitamin C or 3 tablespoons lemon juice.

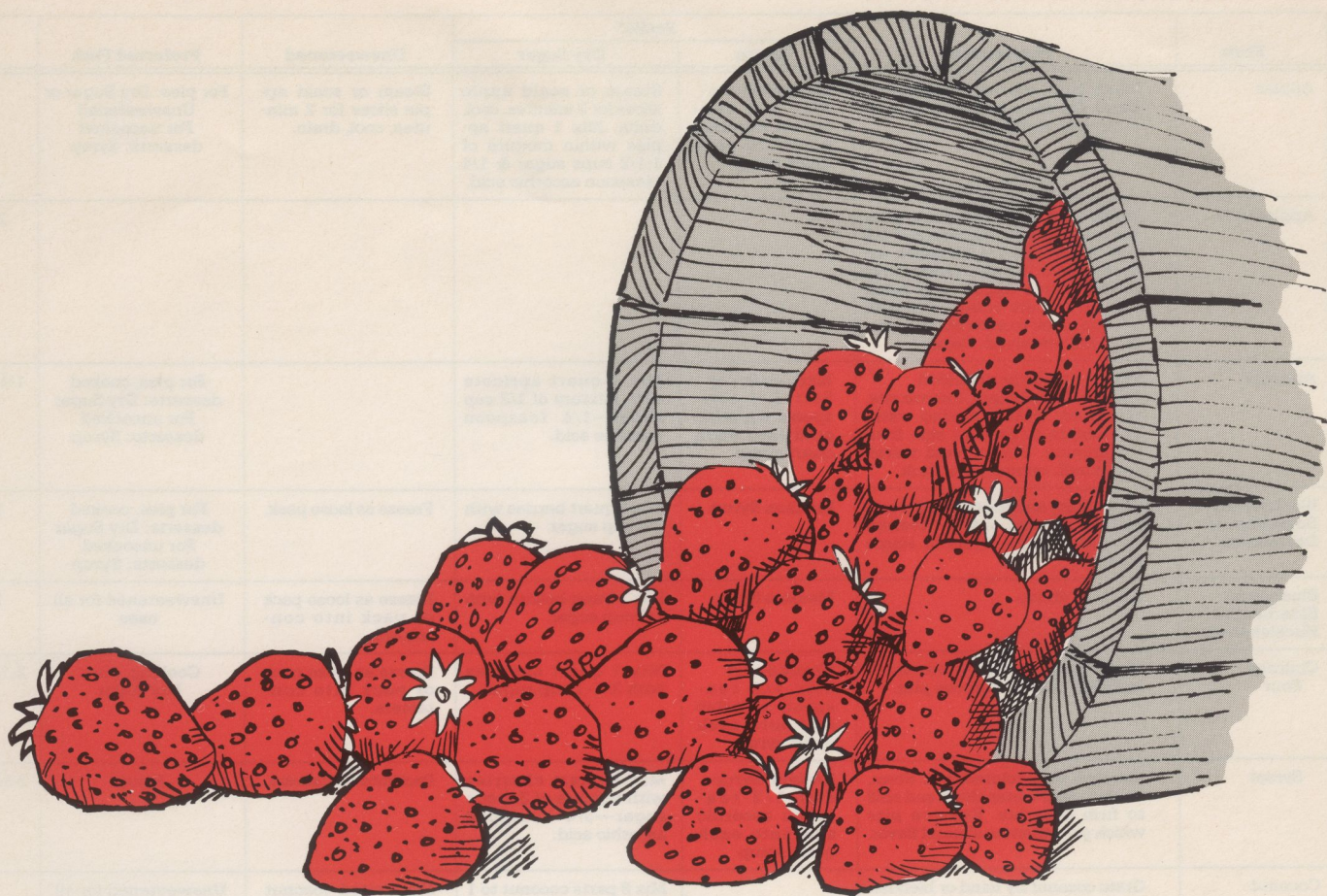
Fill freezer containers 1/4 full with syrup. Slice fruit directly into syrup. If necessary, add more syrup so that the fruit is completely covered. To allow for expansion during freezing, leave 1/2 inch head space for pint containers and 1 inch head space for quart containers. Fill head space with crumpled freezer paper, plastic wrap or wax paper. Cover, seal if necessary, label and freeze.

## Syrup Variations

If desired, 1/4 of the sugar may be replaced by light corn syrup. Fruits also may be frozen with honey. To make honey syrup, combine 1 cup water with 2 cups honey. Honey will impart flavor to fruits and is especially good with melon.

**Dry Sugar Pack**—Most fruits can be frozen using this method, however, they will not retain their form as well as when packed in syrup. Fruits frozen in this pack can be used as toppings or in jams or jellies. Depending upon the sweetness desired, use 1 part sugar to 4 parts fruit.





Fruit which discolors easily should be pretreated as described previously. In addition, 1/2 teaspoon of ascorbic acid should be added to each pound of sugar **before** the sugar is added to the fruit by either of the following methods.

**Method I**—Slice or spoon fruit into freezer container filling 1/4 full. Sprinkle with 1/4 of the sugar, repeat layers. Shake container to distribute sugar. Leave 1/2 inch head space for pint containers, 1 inch for quart containers.

**Method II**—Place sliced or whole fruit in a large mixing bowl, add sugar. Gently stir fruit and sugar until fruit is entirely coated. Spoon fruit into freezer container and leave 1/2 inch head space for pint containers, 1 inch for quart containers.

**Unsweetened Pack**—Most berries can be frozen without sugar or syrup but strawberries may be somewhat softened when frozen in this way. Some fruits can be frozen for loose packing. Spread fruit in single layer in shallow pan and freeze until firm. Then pack in freezer bags or rigid freezer containers, or place chilled fruit directly into freezer containers. Leave 1/2 inch head space for both pint and quart containers. Some fruits, especially those requiring ascorbic acid and sugar for preservation (see chart) will keep longer if covered with liquid, such as unsweetened fruit juices or water. Those fruits that normally require sugar for freezing will not keep as long if frozen unsweetened. Plan to use within three or four months.

Pack in freezer bags, rigid plastic containers, freezer jars, polyester pouches, or outer-waxed cartons with replaceable liners. Be sure to seal containers. To seal plastic bags, twist top, fold over and secure with wire ties. Glass freezer jars and some rigid containers are self-sealing; others may require freezer tape. Freeze in package sizes according to how you plan to use the fruit. For example, 1 pint container of frozen fruit makes 3 dessert servings, or 6 servings when used as a topping for ice cream or cake. To fill a 9 inch pie crust, 1 quart of fruit is required.

## Labeling

Label containers and freeze at once. Place in freezer directly on shelves, or against the sides in a chest freezer, with top sides up. Leave 1 inch of space between packages. After 24 hours, packages may be stacked for storage.

## Thawing and Preparing Frozen Fruit

To serve frozen fruit, thaw unopened freezer container in the refrigerator at room temperature or place container in cool water. A 1 pint package thaws in approximately 5 to 8 hours in the refrigerator (preferable, because the fruit thaws more uniformly); 2 to 4 hours at room temperature; 1/2 to 1 hour in cool water. Fruit may also be thawed in a microwave oven following the oven manufacturer's instructions.

For best flavor and texture, plan to serve fruit that is to be used in salads or fruit cups when it still has a few ice crystals remaining. Fruit used in pie fillings or cooked desserts should be thawed just enough to separate. **Do not refreeze thawed fruits.**

## Jams and Jellies

Jams and jellies have a fresher taste and truer color when they are prepared from frozen berries. The freezing and thawing process releases the juice and natural fruit color which contributes to a high quality jam or jelly. Frozen fruits may be used the same as fresh fruits in most recipes. Follow your favorite jam or jelly recipe.

Many recipes for frozen jams or jellies are available. These preparations have clear, bright colors since the fruit and juice is not cooked. (Be sure to follow the recipe for frozen jams or jellies that comes with the fruit section.) Before freezing, the jam or jelly should stand at room temperature until set. This may take up to 24 hours. If the frozen product is too stiff, stir gently to soften. Store opened jams and jellies in your refrigerator; they will spoil if held at room temperatures.



## How to Freeze Fruits continued

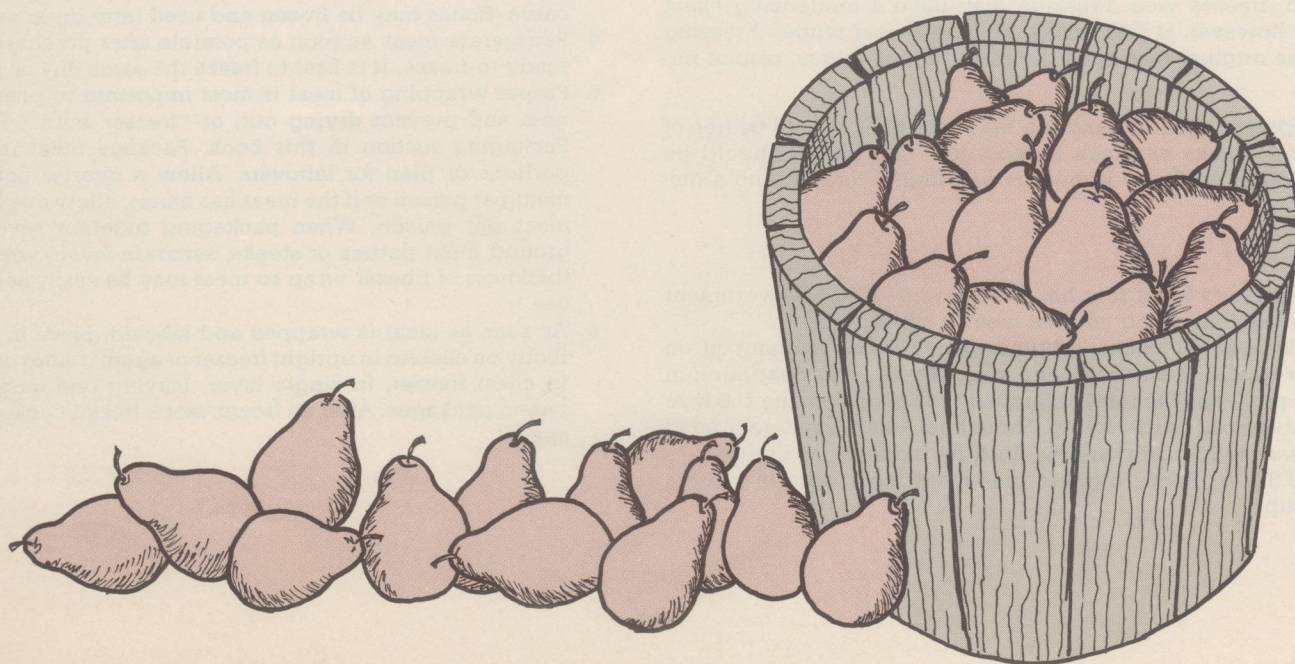
Fruit	Preparation	Packs*		Unsweetened	Preferred Pack	To Make 1 Quart
		Syrup	Dry Sugar			
Apples	Wash, pare, core and cut into 1/2" slices. Dip slices into ascorbic acid-citric acid water.	Medium Syrup Stir 1/2 teaspoon ascorbic acid into each quart syrup.	Steam or scald apple slices for 2 minutes, cool, drain. Mix 1 quart apples within mixture of 1-1/2 cups sugar & 1/4 teaspoon ascorbic acid.	Steam or scald apple slices for 2 minutes, cool, drain.	For pies: Dry Sugar or Unsweetened For uncooked desserts: Syrup	2 pounds
Applesauce	Wash, peel if desired, core, slice. For every quart of apples add 1/3 cup water and 1/4 teaspoon ascorbic acid. Cook apples until tender. Puree apples and package in 1 quart containers. Add 1/4 cup sugar to each quart sauce. Stir until dissolved. Cover.					2-2/3 pounds
Apricots	Freeze peeled or unpeeled. Peeled: Cut in halves, remove pits. Unpeeled: Heat in boiling water 1/2 minute to prevent skin from toughening. Chill in cold water, cut in half, remove pits. Pack.	Medium Syrup Stir 3/4 teaspoon ascorbic acid into each quart syrup.	Mix 1 quart apricots with mixture of 1/2 cup sugar—1/4 teaspoon ascorbic acid.		For pies, cooked desserts: Dry Sugar For uncooked desserts: Syrup	1-1/2 to 2 pounds
Blackberries Boysenberries Dewberries	Wash small amounts carefully and quickly in cold water. Remove caps and stems. Drain in single layer.	Medium Syrup	Mix 1 quart berries with 3/4 cup sugar.	Freeze as loose pack.	For pies, cooked desserts: Dry Sugar For uncooked desserts: Syrup	1-1/2 quarts
Blueberries Elderberries Huckleberries	Same as above.	Medium Syrup	Mix 1 quart berries with 1/2 cup sugar.	Freeze as loose pack or pack into containers.	Unsweetened for all uses	1-1/2 quarts
Cherries Sour	Stem, wash in cold water, drain and chill to firm. Remove pits.	Heavy Syrup Stir 1/2 teaspoon ascorbic acid into each quart syrup.	Mix 1 quart cherries with 3/4-1 cup sugar.	Freeze as loose pack or pack into containers.	Cooking, pies: Dry Sugar	2-1/2 to 3 pounds
Sweet	Use ripe, well-colored fruit. Stem, wash in cold water, drain and chill to firm cherries. Remove pits which give cherries almond flavor.	Medium Syrup Stir 1/2 teaspoon ascorbic acid into each quart syrup.	Mix 1 quart cherries with mixture of 3/4 cup sugar—3/4 teaspoon ascorbic acid.	Pack into containers.	Syrup	2-1/2 to 3 pounds
Coconut	Grate coconut by hand or blender.		Mix 8 parts coconut to 1 part sugar.	Mix grated coconut with its own milk and pack or pack coconut into container.	Unsweetened for all uses.	
Cranberries	Wash, drain, chill.	Heavy Syrup		Loose pack or into containers.	Unsweetened	1 pound
Currants	Wash, remove stems; drain, chill.		Mix 1 quart currants with 3/4 cup sugar.	Loose pack or into containers.	Unsweetened	1-1/2 pounds
Figs	Handle gently. Sort and discard bruised or soft fruit. Wash in very cold water. Use sharp knife to remove stems. Figs may be frozen peeled or unpeeled and left whole or cut in halves or slices.	Medium Syrup	Roll 4 parts halved or whole figs in 1 part sugar.	Place whole figs in freezer bag or container filling all space.	Unsweetened for all uses	—
Gooseberries	Remove stems and blossom ends, wash, drain. Use fully ripe fruit in pies; slightly underripe for jelly or preserves.		Mix 1 quart slightly crushed berries with 2/3 cup sugar.	Pack into containers.	Pies, preserves: Unsweetened	1-1/2 quarts
Grapefruit, Orange Sections	Peel and section well-chilled fruit, being sure to remove all membranes and seeds.	Medium Syrup Stir 1/2 teaspoon ascorbic acid into each quart syrup.		Cover with juices saved when sectioning; if needed, add commercially prepared juice or water to cover.	Syrup or Unsweetened	—
Grapes	Cut in half, remove seeds. Freeze seedless grapes whole. (Grapes become soft when thawed. Serve mixed with other fruits.)	Medium Syrup		Pack into containers. For short term storage, grapes may be frozen as a bunch if they are packed in freezer bags or containers.	For desserts: Syrup or Unsweetened For jam, jelly: Unsweetened	—
Juices Citrus Juices	Juice chilled fruit lightly to avoid pressing any oil from skins.		Stir into each quart of juice 1/4 teaspoon ascorbic acid and 2 tablespoons sugar. Leave head space.	Stir into each quart juice 1/4 teaspoon ascorbic acid. Leave head space.	Pack sweetened or unsweetened juice into glass or plastic freezer containers.	—
Other Juices	Most fruits can be made into frozen juices and will retain their flavor. Use your favorite juice recipe and package as suggested.		Same as above.	Same as above.	Jellies: Unsweetened All others: Unsweetened or Sweetened	—
Melons Cantaloupe Crenshaw Honeydew Persian Watermelon	Cut in half, seed, peel. Scoop out melon balls or cut into cubes, slices or wedges. Drain well. (Melon softens as it thaws, serve when a few ice crystals remain.)	Light Syrup (Honey syrup can be substituted for sugar syrup.)	Mix 1 quart melon with 2/3 cup sugar.	Cover with cold water, low-cal ginger ale or orange juice. Leave head space.	Dry Sugar or Syrup	2-2-1/2 pounds



## How to Freeze Fruits continued

Fruit	Preparation	Packs*		Unsweetened	Preferred Pack	To Make 1 Quart
		Syrup	Dry Sugar			
Nuts Almonds, Pecans, Walnuts	Select nuts as you would for fresh eating or baking. Shell and dry thoroughly. Thaw before using.			Loose pack in freezer bags.	Unsweetened	—
Peaches Nectarines	Select well-ripened fruit which should peel easily. Wash in cold water, handle gently to avoid bruising. Peel fruit by hand. Slice into ascorbic acid—citric acid mixture.	Heavy Syrup Stir 1/2 tea- spoon ascorbic acid into each quart syrup.	Mix 1 quart fruit with 2/3 cup sugar and 1/4 teaspoon ascorbic acid. Allow mixture to stand until sugar dissolves. (Approximately 10 min- utes.) Package fruit.	Add to each quart chilled water 1 tea- spoon ascorbic acid. Pour over fruit in containers. Place freezer wrap on top. Leave head space.		2-3 pounds
Pears	Select firm and crisp fruit. Wash, peel, cut into halves or quarters, core and drop into ascorbic acid—citric acid mixture. Transfer pears to a boiling medium syrup for 1 to 2 minutes. Pack in chilled syrup. (Pears tend to disintegrate when thawed. Boiling in syrup helps pears hold their shape.)	Light or Medium Syrup—Stir 3/4 teaspoon ascor- bic acid into each quart syrup.			Syrup	2-2-1/2 pounds
Pineapple	Select fruit which has bright yellow-orange color and fragrant odor. Top of pineapple should pull out easily. Peel, remove eyes and core. Slice, dice or cut into wedges, or shred.	Light Syrup Use part pine- apple juice if desired.	Mix 1 quart fruit with 1/2 cup sugar.	Pack into contain- ers. Frozen pineap- ple slices should be separated with freezer paper.	No preference. Frozen fresh pineapple does not work well in gelatin salads.	2-1/2 pounds
Plums	Select firm, ripe fruit which is soft enough to withstand slight pressure. Wash, cut in half, remove pit.	Medium or Heavy Syrup Stir 1/2 tea- spoon ascorbic acid into each quart syrup.	Mix 5 parts fruit with 1 part sugar. Allow fruit to stand until sugar is dis- solved. Carefully stir mixture.	Not recommended.	For uncooked desserts or as a sauce: Syrup	2-3 pounds
Raspberries Black Purple Red	Select fully ripe, firm berries. Wash small amounts carefully and quickly in icy cold water. Remove caps and stems and discard defective or underripened fruit. Drain at once. Refrigerate.	Heavy Syrup Prepare syrup with berry juice instead of water.	Mix 1 quart fruit with 1/2 to 3/4 cup sugar.	Loose pack.	Black Raspberries: Syrup Red Raspberries: Unsweetened	1 quart
Rhubarb	Stalks should be tender and crisp. Wash, trim away woody ends and tough portions. Cut in 1 to 2 inch lengths. To retain flavor and color, scald in boiling water 1 minute, chill in cold water, drain.	Medium or Heavy Syrup for raw or scalded rhubarb.	Mix 1 quart fruit with 1 cup sugar.	Pack raw or scalded rhubarb in con- tainers.	Scalded: Unsweetened	2 pounds
Strawberries	Berries should be firm, ripe and have a deep red color. Discard defective or underripe fruit. Wash small amounts in icy cold water. Drain. Remove hulls. Refrigerate to firm berries which will be packed whole.	Light or Medium Syrup	Mix 1 quart fruit with 1/2 to 1 cup sugar. Al- low fruit to stand until sugar is dissolved.	Loose pack.	For whole berries: Syrup For sliced or crushed berries: Dry Sugar	1-1/3 quarts

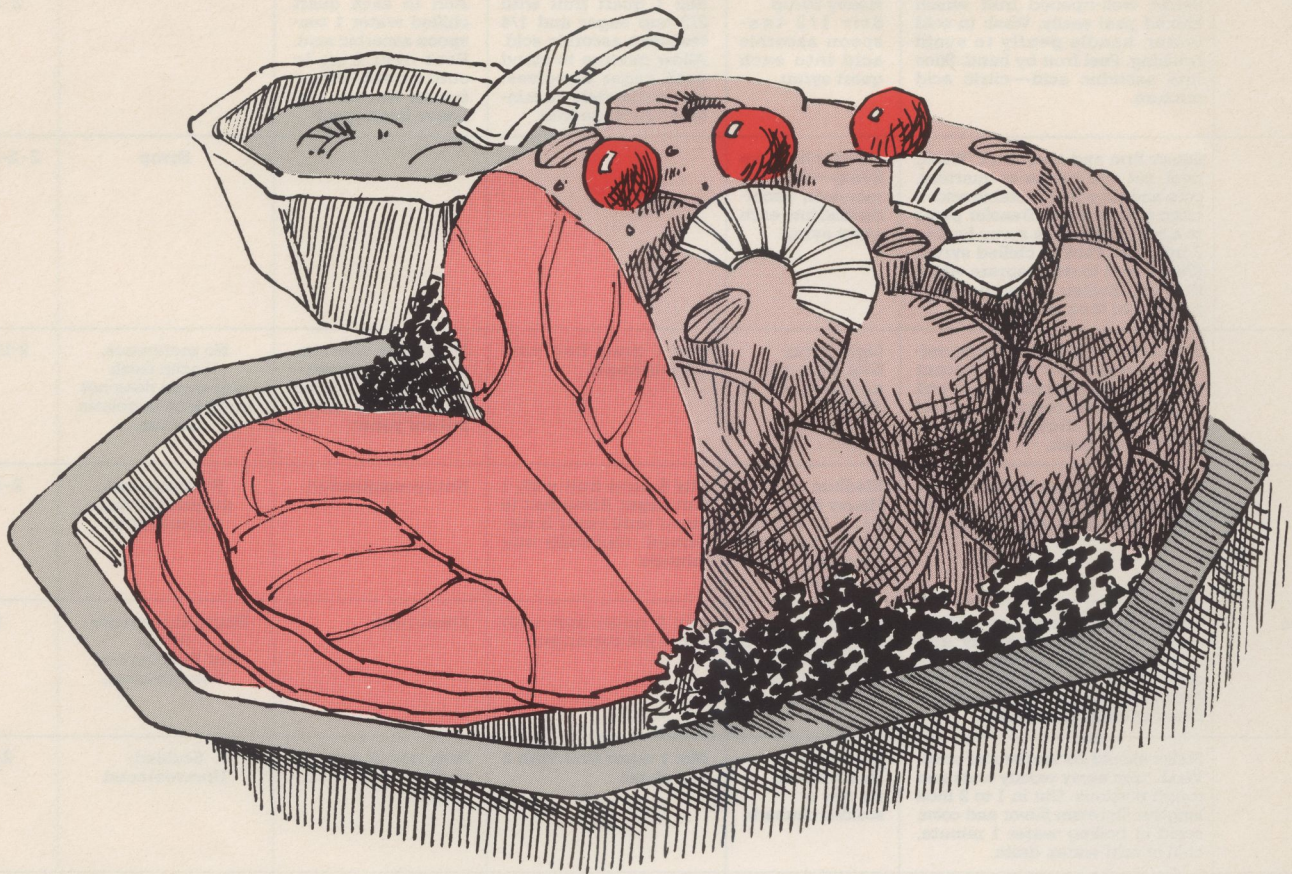
\*Follow specific instructions for preparing and packaging individual packs.







# Meats



Large quantities of meats, such as a quarter or half carcass, may be too much to freeze at one time in a home size freezer. Only 2 to 3 pounds of food per cubic foot of freezer space should be frozen at one time. For this reason you may prefer to have your local commercial locker plant cut, package and freeze the meat. The frozen packages, then, can be transferred to your freezer for storage.

Probably most of the meat you freeze will be purchased from your local market in smaller quantities. Good quality meat, correctly packaged, freezes well. Freezing may have a tenderizing effect on meat, however, it will not make tough meat tender. Freezing retains the original quality of the meat, but of course, cannot improve it.

Any equipment used in handling meat products should be free of seams and cracks as much as possible. Equipment should be scrubbed after each use in hot water using detergent and a disinfectant.

## To Freeze Meat (Beef, Lamb, Pork, Veal)

1. Select quality meat that has been stamped "U.S. Government Inspected," assuring you the meat is wholesome.
2. Check meat for packer's brand name, which is stamped on better-quality beef, lamb and veal. (There is less variation in fresh pork, so it is rarely stamped.) Or, check for the U.S.D.A. shield-shaped grade stamp. Some beef, lamb, veal are graded this way to indicate quality. Beef, for example, is graded:

U.S.D.A. Prime highest grade available only in limited supply.

U.S.D.A. Choice highest grade available in quantity in most retail markets.

U.S.D.A. Good high-quality beef which is slightly darker red and has less fat covering and marbling than Choice grade.

Prime, Choice and Good all freeze well.

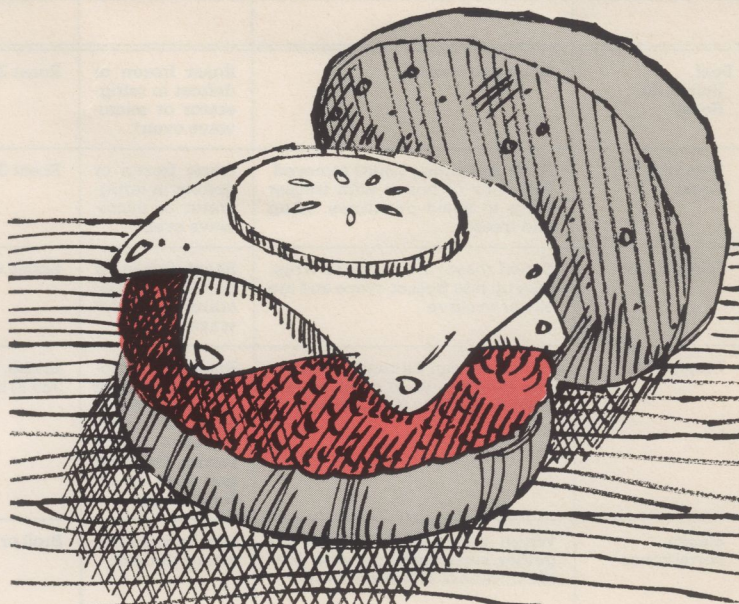
3. Have your butcher remove any large protruding bones and excess fat. You may prefer to have some roasts boned, as boneless roasts take up less freezer space, are easier to wrap and carve. Bones may be frozen and used later on in soup stock.
4. Refrigerate meat as soon as possible after purchase and until ready to freeze. It is best to freeze the same day as purchased.
5. Proper wrapping of meat is most important to preserve freshness and prevent drying out, or "freezer burn." Review the Packaging section in this book. Package meat in meal-size portions or plan for leftovers. Allow a quarter pound boned meat per person or if the meat has bones, allow one-half pound meat per person. When packaging together several chops, ground meat patties or steaks, separate layers with a double thickness of freezer wrap so meat may be easily separated for use.
6. As soon as meat is wrapped and labeled, place in freezer, directly on shelves in upright freezer or against sides or on bottom in chest freezer, in single layer, leaving one inch space between packages. After 24 hours, stack frozen packages to save space.



## Storage Life of Various Meats at 0°F

Labeling and dating all meat packages will help you keep a close check on how long meats have been in your freezer and remind you when it's time to use them.

Meat	Maximum Storage Time in Months
Beef	
Frankfurters	1—2
Ground Beef	3—4
Steaks	6—9
Veal (fresh)	6—9
Cooked Meats	3
Game	6
Lamb	4—8
Pork	2—6
Cured Pork	1
Fresh Pork	3—4
Ground Pork	1
Sausage	1
Roasts (beef, lamb, mutton, veal)	6—9
Soups and Stews	6
Variety Meats (kidneys, liver, heart, tongue)	3



## Methods of Preparing Frozen Meats

**Braise**—(Use partially thawed or thawed.) Meat should be partially thawed so that it can be browned easily. Add a small amount of liquid, cover pan and cook on low heat. Frozen meats require only slightly longer cooking times because they thaw more quickly in steam or hot liquid. Cuts which are to be coated with egg, crumbs or flour should be completely thawed.

**Broil**—(Use frozen or thawed.) Broil frozen chops or steaks 3-4" below heat source to make sure inside of steak gets cooked to desired doneness. Thawed meats are broiled just as fresh meats—2-3" below heat.

**Microwave Oven**—(Use frozen or thawed.) Follow the special meat preparation and defrost instructions given in the Microwave Oven and Freezer section.

**Pan-Broil**—(Use frozen or thawed.) Brown over high heat, turn over, lower heat and cook until done, turning several times.

**Pressure Cook**—(Use frozen or thawed.) Frozen meat requires one to two times more cooking than thawed or fresh meat, depending on the size and cut. Follow the instructions given by the pressure cooker manufacturer concerning frozen meat cookery.

**Roast**—(Use frozen or partially thawed.) Put roast on rack in uncovered pan with no water. Roast slowly. Roast may be prepared from frozen state. Frozen roasts require approximately a third to a half again as long for cooking as roasts which have been defrosted.

**Stew**—(Use frozen or thawed.) Brown, season, cook as usual. Add 1/3 to 1/2 more time for frozen meat. If meat was not cut for stewing, thaw first, then cut.



## Tips on Thawing and Cooking Frozen Meats

1. Always thaw meat in its freezer wrap.
2. Meat must be thawed before cooking if it is to be:
  - a. Breaded or coated with batter, since these do not stick to frozen meats.
  - b. Deep-fat fried.
  - c. Cut in pieces or combined with other ingredients before cooking.
3. For quality results and evenness in thawing, meats should be thawed in the refrigerator in their freezer wrapping. At room temperature, the center is apt to be frozen when the remainder is thawed. Meats should be cooked as soon as thawed and while still cold, which is another reason for thawing in the refrigerator. After meat has thawed, it begins to "drip" or leak juices which can result in dry, tough meat upon cooking. Meat should not be thawed in cold water unless it is to be cooked in water.
4. Allow 3 to 6 hours per pound to thaw roasts in the refrigerator; 1 to 2 hours per pound at room temperature. Refrigerate frozen steaks and chops overnight to thaw; or let stand, wrapped, at room temperature 2 to 4 hours. If you have a microwave oven, follow the instructions given in this section concerning defrosting meat in a microwave oven.
5. Cook thawed meats as you would fresh meats.
6. Do not refreeze thawed meats. If meats are only partially thawed and are still firm, they may be refrozen, but plan to use them soon. Partially thawed meats can also be cooked and then refrozen.
7. After cooking, meat can be frozen. As a guide, remember that meat should be successfully frozen only once when raw and only once after it has been cooked.

## Hints

1. Less tender cuts of meat may be treated with instant meat tenderizer, following package directions, before wrapping for freezing. Use within 6 months.
2. For soup, simmer bones in salted water to cover for three hours. Place pan in ice water to cool quickly. Remove bones. Refrigerate bones and broth, covered. Next day, skim off fat from broth. If desired, cook broth down to condense it; place pan in ice water to cool quickly. Trim meat from bones and place in rigid freezer containers. Fill containers with broth to within 1/2 inch from top of pint containers, 1 inch from top of quarts. Cover, label, freeze. To use, add water or tomato juice, vegetables and season to taste.

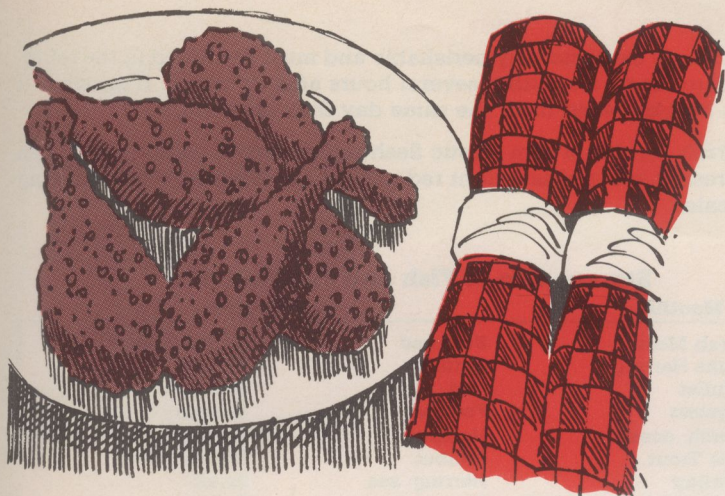


## How to Freeze Meats

Meat	To Freeze	To Use	Cooking Method	Conventional Cooking Time min./lb.		
				Thawed	Frozen	Internal Temperature
Beef Rolled Rib Roast	Wrap and freeze.	Roast frozen or defrost in refrigerator or microwave oven.*	Roast 300°F–325°F	Rare 32 Medium 38 Well Done 48	43-48 51-57 64-72	140°F - Rare 160°F - Medium 170°F - Well Done
Standing Rib Roast	Have protruding bones removed. Pad ends of bones with freezer wrap to avoid punctures. Wrap and freeze.	Roast frozen or defrost in refrigerator or microwave oven.*	Roast 300°F–325°F	Rare 23-25 Medium 27-30 Well Done 32-35	31-39 36-45 43-52	140°F - Rare 160°F - Medium 170°F - Well Done
Rump Roast	Boned roasts are easier to wrap, take up less freezer space and are easier to carve.	Roast frozen or defrost in refrigerator or microwave oven.*	Braise or roast at 325°F	Medium 25-30	33-40	150°F - 170°F
Chuck Roast	Pot roasts can be tenderized before freezing. Read meat tender-label for specific instructions.	Brown while frozen. Add small amount of water and simmer, covered, until tender. Or, thaw and cook as for fresh meats.	Braise in oven (300°F–325°F) or on top of range.	50-55	66-82	150°F - 170°F
Steaks, Porterhouse	When packaging several together, separate layers with double thickness of freezer wrap.	Can be used frozen or thawed.	Broil or pan broil.	Rare to Medium 3/4" thick 9-14 Rare to Medium 1" thick 14-18 Rare to Medium 1-1/2" thick 18-25	12-21 19-27 24-37	
Ground Beef 1 lb. package	For quick thawing, form in amounts needed in thin flat cakes.	Thaw meat in refrigerator or microwave oven if it is to be shaped before cooking (ex. meatloaf).* To use in casseroles, beef frozen in 1 or 2 lb. flat cakes can be sauteed over low heat while frozen. As meat thaws break it up.	Bake - Meatloaf Broil Pan-Broil Pan-Fry Saute			
Ground Beef patties (separated)	Form into patties 3/4" to 1" thick. Wrap in freezer wrap, separating layers with double thickness of freezer wrap.	Use frozen or thawed.	Broil Pan-Broil Pan-Fry			
Stew Meat	Package in recipe-size portions in freezer containers or freezer bags.	Thaw in refrigerator while frozen.	Stew	2-1/2–3 hours (total)	3–3-1/2 hours (total)	
Pork Loin Roast	Refer to beef roast packaging.	Cook frozen or defrost in refrigerator or in microwave oven.*	Roast 325°F–350°F	30-35	40-50	170°F
Rib or Shoulder	Refer to beef roast packaging.	Cook frozen or defrost in refrigerator or microwave oven.*	Roast 325°F–350°F	30-35	40-50	170°F
Fresh Ham	Refer to beef roast packaging.	Defrost in refrigerator or microwave oven.*	Roast 325°F–350°F	22-26	30-40	170°F
Pork Chops	When packaging several together, separate layers with double thickness of freezer wrap.	Brown frozen or thawed chops in skillet.	Braise Broil Pan-Broil	45-60 15-20 30 min. (total)	60-90 Thaw First 40-45 min. (total)	
Sausage (1 lb. package)	Package as individual patties (see ground beef patties) or cover entire package with freezer wrap.	Can be used frozen or thawed.	Pan-Broil	12-15 min. (total)	16-22 min. (total)	
Lamb Leg	Refer to beef roast packaging.	Can be used frozen or thawed.	Roast 325°F	Medium 30-35	40-55	175°F - 180°F
Rolled Shoulder	Refer to beef roast packaging.	Can be used frozen or thawed.	Roast 325°F	Medium 40-45	55-70	175°F - 180°F
Veal Leg	Refer to beef roast packaging.	Can be used frozen or thawed.	Roast 325°F	25-35	33-42	170°F
Loin	Refer to beef roast packaging.	Can be used frozen or thawed.	Roast 325°F	30-35	40-50	
Chops & Cutlets 1/2–3/4" thick	When packaging several together, separate layers with double thickness of freezer wrap.	Can be used frozen or thawed.	Braise on range surface.	45-55 min. (total)	60-80 min. (total)	

\*Follow microwave oven manufacturer's directions for specific time and power level.





## Poultry

Chickens, ducklings, geese and turkeys freeze well. Freeze them whole, split in halves, or cut-up. The giblets and livers should be frozen in separate packages because they cannot be frozen safely for as long a period of time. You may notice a red-brown discoloration around the joints of young birds. This is caused by seepage of hemoglobin from the bone marrow during freezing; it is not harmful and has no effect upon flavor.

## To Freeze Poultry

Your local locker plant or meat market can prepare poultry for freezing. Follow these suggestions when freezing poultry.

1. Select good-quality poultry that has been federally inspected if shipped from out of state. Be sure birds purchased locally were handled under sanitary conditions. Check the skin to see if it is free from pin feathers and bruises. In some localities chicken packages bear an open-dated label which gives the date by which chicken should be sold.
2. Refrigerate poultry as soon as possible after purchase, and until ready to freeze.
3. Birds can be frozen whole (unstuffed), cut in halves, quarters or pieces. When you purchase chickens for broiling, ask your butcher to remove the neck and back bone.
4. Before freezing, check to see that birds have been thoroughly cleaned and that the oil sac from base of tail has been removed. Remove giblet package. Wash, dry and chill.
5. Proper wrapping is very important to preserve freshness and prevent drying out during storage. Improperly wrapped poultry will be dry and tough when cooked.
6. To freeze whole birds, tie legs to tail and wrap string around wings to hold them close to the body. Wrap in freezer wrap using drug store method. Heavy polyethylene freezer bags are excellent. Place bird in bag, then place 3/4 down into a pan of hot—not boiling—water to collapse the bag, molding it firmly around bird. Twist top of bag, fold over and secure with wire "twists." It is best to overwrap birds to avoid puncturing during storage. Poultry should not be stuffed for home freezing because it takes too long for it to reach the freezing point thus making it an excellent medium for bacterial growth. Commercially frozen stuffed turkeys are prepared very quickly under rigid conditions which are not possible to duplicate at home.
7. To freeze halved or quartered birds, remove the necks and back bones before wrapping. Then package halves or quarters together, with a double thickness of freezer wrap between each layer so they can be easily separated.
8. To freeze birds cut into parts, cook wing tips, backs and necks for stock. Pack meaty parts in freezer bags or freezer wrap. If parts are to be used for fricasseeing or stewing, freeze in loaf pan. When frozen, let stand at room temperature 10 to 15 minutes. Then remove from pan and wrap tightly in freezer wrap.
9. As soon as birds are wrapped and labeled, place in freezer, directly on shelves in upright freezer or against sides or on bottom in chest freezer, in single layer, leaving one inch space between packages. After 24 hours, stack frozen packages to save space.

## Poultry Storage

Poultry	Description	Usually Frozen As	Storage (months)*
Chickens Rock Cornish Hens	Very young, small, about 6 weeks old, of 1 to 1 1/4 lbs. ready-to-cook weight.	Whole or split in halves.	12
Broilers-Fryers	Small, tender, about 9 weeks old of 1 1/4 to 4 lbs. ready-to-cook weight.	Whole, cut in halves, quarters, parts.	12
Roasting	About 12 weeks old 3 1/2 to 6 lbs. ready-to-cook weight.	Whole or cut up in parts.	12
Hens, Stewing Chickens, Bro-hens	Older, less tender with more fat, of 2 1/2 to 5 lbs. ready-to-cook weight. Bro-hens are older broiler-fryers of 4 1/2 to 6 lbs.	Cut up	12
Capons	Desexed male of 4 to 7 lbs. ready-to-cook weight. Tender with large amount of white meat.	Whole	12
Ducklings	Often sold frozen.	Whole, cut up	6 to 7
Geese	Vary from 4 to 14 lbs.	Whole	3 to 4
Guinea Hens	Gamey flavor; tender, drier than chicken. White, thick breast meat is choice part.	Whole	8 to 12
Squab	Young pigeon about 1 lb. each.	Whole or split in	8 to 12
Turkeys	Vary from 1 to 24 lbs.	Whole, cut in halves, quarters or parts.	6 to 8
Pre-Cooked Poultry	Various types.	Removed from bone, sliced, diced or cubed.	6

\*Plan to use poultry giblets within 2 to 3 months.

\*\*Broilers or fryers cut and packaged at the store may keep only 3 to 4 months.

## To Cook Frozen Poultry

1. For more even cooking, whole birds should be thawed before roasting. For commercially frozen stuffed turkeys, chickens or Rock Cornish hens, follow label directions. Halves, quarters or poultry parts can be broiled or oven-fried as soon as parts have thawed enough to separate. Frozen pieces of chicken or turkey for stewing may be simmered frozen.
2. Poultry is best and more evenly thawed if allowed to defrost in the refrigerator while still wrapped. If bird was frozen in a water-tight package or bag, it may be thawed in cold running water. To thaw at room temperature, place bird in its original wrap in a brown paper bag or wrap in several thicknesses of newspaper. The approximate thawing times for whole poultry are:

### THAWING

Thawing Weight (Lbs.)	Days in Refrigerator	Hours in Cold Water	Hours At Room Temperature*
4 to 5	1	2-3	6 to 8
6 to 10	1-2	4-6	10 to 18
10 to 20	2-3	6-8	18 to 30
20 to 24	3-4	8-12	

\*In brown paper bag.

3. Cook poultry as soon as it is thawed or refrigerate until ready to cook.
4. Cook thawed poultry as you would fresh.
5. Fully-thawed birds should not be refrozen. If they are partially thawed and still contain ice crystals, they may be refrozen, but plan to use soon. After cooking, poultry can be frozen.



## Game

Most states have laws governing the amount of game that may be frozen at one time and how long it may be stored. Contact your State Wildlife Department or local game warden to find out the laws in your state and for more information on game preservation. Game birds, rabbits and venison freeze well if they are handled correctly and quickly.

Game birds should be cleaned and cooked promptly. Do not pile into a sack or heap together, as birds need air circulation to prevent deterioration. It may be more convenient to have the birds quickly frozen at a locker plant near the game area before returning home. Refer to the poultry chart for individual poultry storage times.

Small game such as rabbits and squirrels, and large game such as deer (venison), moose and bear should be promptly and thoroughly bled, dressed and cooled. Game spoils rapidly, especially in muscles damaged by bullets. You may prefer to have large game cut, wrapped and frozen by a locker or meat plant if state laws permit. Plan to use small or large game meat within a six month period.



## Fish and Shellfish

Fish are exceptionally perishable and must be chilled in the refrigerator or on ice within several hours after catching. If possible, it is best to freeze them the same day they are caught.

Fresh fish has a firm elastic flesh which resists indentation when pressed, clear eyes, bright red gills, shiny skin and close adhering scales.

### Storage Life of Fish and Shellfish at 0°F

3 Months	4-6 Months*	
Crab Meat	Bullhead	Northern Pike
Lake Herring	Catfish	Pollack
Mullet	Cod	Rainbow Trout
Oysters	Flounder	Salmon
Perch; ocean	Haddock	Shellfish
Sea Trout	Halibut	Shrimp (raw)
Shrimp	Herring; sea	Smelt
(cooked and peeled)	Lake Trout	Tuna
Striped Bass	Mackerel	Whiting, drawn (4 mos.)

\*Storage life increased 1 to 2 months if glazed or frozen in ice.

7-9 Months	9 Months
Bass, lake	Blue Pike
Bluegills	Hake
Rockfish	Lingcod
Sunfish	Lutefisk
Whitefish	Yellow Perch
	Yellow Pike (walleye)

## Preparation for Freezing

1. Fish should be prepared as for cooking. Remove scales, entrails, fins, etc. Wash outside and cavity.
2. Small fish may be frozen whole; large fish should be cut into steaks or fillets.
3. Treat cut lean fish with a salt water solution to aid in preservation; treat oily cut fish with ascorbic acid solution. (Whole fish are not treated.)
  - a. **Salt solution**—Dissolve 1/4 cup salt in 1 quart cold water. Dip fish into solution for 20 seconds. Use for lean cut fish, such as bluefish, cod, flounder (sole), haddock, halibut, ocean perch, pickerel, red snapper, sea bass (black, blackfish, white), sea trout, smelt (New England), striped bass, swordfish, whiting, yellow perch. Dipping in salt solution helps reduce drip during thawing, helps retain flavor and firmness.
  - b. **Ascorbic acid solution**—Dissolve 1 teaspoon powdered ascorbic acid (available in drug stores) in 2 cups cold water. Dip fish into solution for 30 seconds. Use for oily cut fish, such as herring, lake trout, mackerel, rainbow trout, salmon, shad, smelt (Pacific Coast), tuna, whitefish. Dipping in ascorbic acid solution helps to prevent off-flavors during storage and "rusting" or yellowing of the fish. Oily fish are not treated with salt solution because it reacts with the fat in the fish to cause rancidity.
4. Package fish in:
  - a. **Moisture-vapor-proof sheet wraps, bags or containers.** Leave 1/2" head space in containers. If you wrap several fish or pieces of fish together, separate layers with a double thickness of wrap.
  - b. **Ice Glaze**—Place whole fish on tray. Freeze until firm. Dip in very cold water and return to freezer. Repeat 3 or 4 times, or until fish is covered with 1/8 inch thick coating of ice. Wrap in freezer wrap to prevent evaporation of ice.
  - c. **In Ice**—Small whole fish are easy to freeze this way. Place small whole fish in rigid freezer containers. Cover with cold water—leave head space. Cover, seal with freezer tape if needed. Label. Freeze. To use, thaw under cold running water. Fillets and steaks should not be frozen in ice because some vitamins and minerals will be lost.



## Shellfish

### 1. Clams, oysters, scallops

- Freeze only **live** clams or oysters.
- Wash thoroughly.
- Shuck—saving liquid from clams or oysters.
- Dissolve 1 tablespoon salt in 1 quart cold water and wash shucked clams or oysters in salt solution.
- Place in rigid freezer containers.
- Cover with reserved liquid. (If necessary, add fresh salt solution to cover.) Cover scallops with fresh salt solution. Leave head space. Place crumpled freezer wrap on top to keep meat submerged in liquid. Cover, label and freeze.

### 2. Crabs and lobsters

- Use only **live** crabs or lobsters that have been freshly cooked before freezing.
- Cooked lobster and crab meat freezes best. Steam or boil 15 to 20 minutes. Cool; remove meat, separating leg, body, claw meat for easier packing.
- To avoid large ice crystals forming which toughen the meat, pack meat tightly in rigid containers. Freeze immediately.

### 3. Shrimp

- To freeze raw (recommended):  
Wash thoroughly, remove heads and black sand veins. Shell or not, as desired. Pack in freezer bags or rigid containers.
- To freeze cooked:  
Cooked shrimp toughens quickly during storage and should be held no longer than 2 weeks. Pack cleaned, peeled, cooked shrimp in freezer bags.

- Thaw fish in its original wrapping. It takes approximately 8 hours per pound when thawed in the refrigerator and 4 hours per pound at room temperature.  
Lobster takes slightly more defrosting time whereas scallops, oysters, shellfish and uncooked shrimp take slightly less time. Shrimp does not have to be thawed before deep fat frying.
- Fillets and steaks may be thawed just enough to separate and then bake or broil.
- Fish may be cooked frozen if it is to be boiled, broiled, baked, poached or used in chowders or stews. Unthawed fish must be cooked longer and at a lower temperature than fresh fish, approximately one and one fourth times as long.

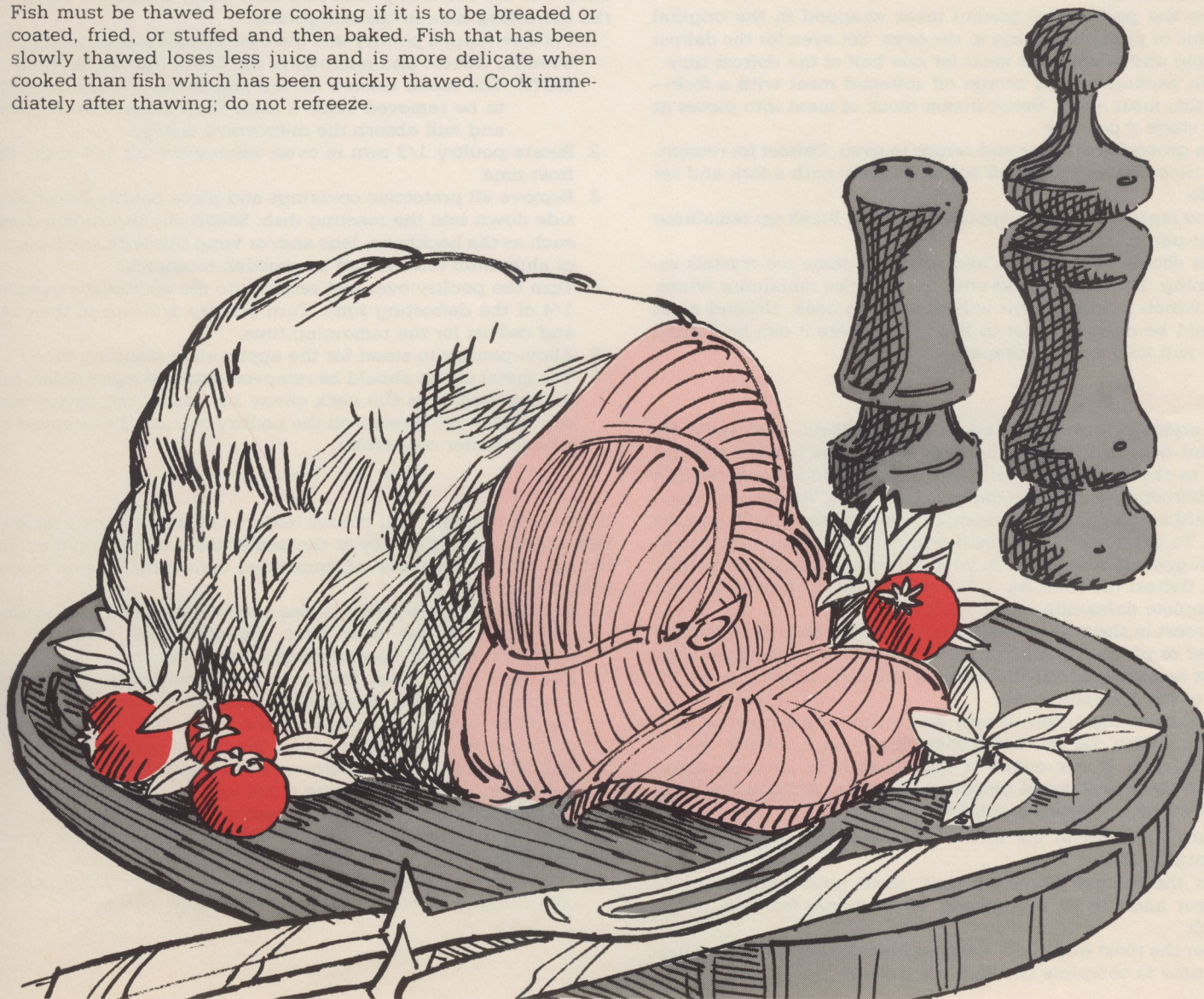
## Microwave Defrosting of Frozen Meats, Poultry and Fish

Meat which must be defrosted before preparation, can be safely and quickly defrosted using a microwave oven. To avoid unnecessary toughness of meat, do not cook meat in the microwave oven directly from the frozen state—defrost all large pieces of meat. Special defrosting techniques must be used to redistribute microwave energy, such as stirring, rotating, separating and turning to help food defrost evenly and quickly. Attempting to defrost meat without redistributing the microwave energy may cause edges of the meat to begin cooking while the center of the meat is not yet defrosted. If cooking begins to occur, make sure meat is cooked immediately after defrosting. Standing times are a necessary part of a defrosting process and must be observed.

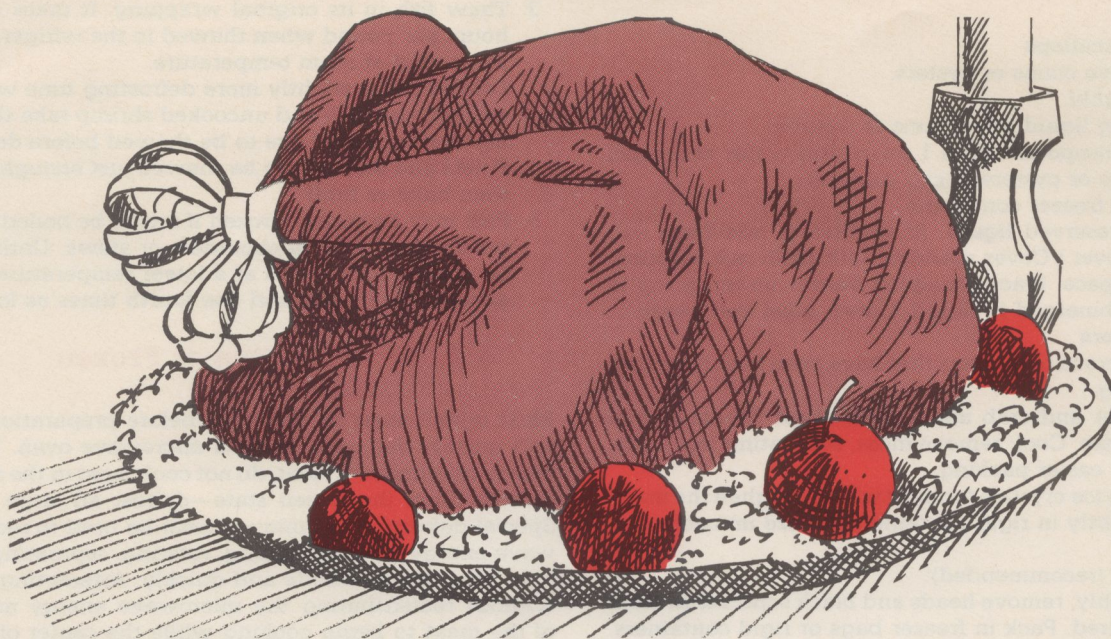
**Because different brands of microwave ovens have different wattage outputs, please follow the defrosting times given in your microwave oven cookbook.**

## To Thaw and Cook Frozen Fish

- Fish may be cooked frozen or thawed.
- Fish must be thawed before cooking if it is to be breaded or coated, fried, or stuffed and then baked. Fish that has been slowly thawed loses less juice and is more delicate when cooked than fish which has been quickly thawed. Cook immediately after thawing; do not refreeze.







## Defrosting Ground Meat

Ground meat comes in various size packages and defrosting times will vary depending on the package size. Small, flat packages of meat approximately 1—1-1/2 inches thick will defrost more evenly and quickly. All packages of ground meat can be defrosted by following these steps.

1. Place the package of ground meat wrapped in the original plastic or paper wrapping in the oven. Set oven for the defrost setting and microwave meat for one half of the defrost time.
2. Open packaging and scrape off softened meat with a fork—set this meat aside. Break frozen block of meat into pieces at this stage if possible.
3. Turn ground meat over and return to oven. Defrost for remaining time. Again scrape off softened meat with a fork and set aside.
4. Allow meat to stand for appropriate time. Break up remaining meat particles.
5. Meat should appear cool and soft with some ice crystals remaining. It should be red with fat particles remaining white. Fat which is transparent is beginning to cook. Ground meat should be defrosted just to the point where it can be formed and will hold its own shape.

## Defrosting Roasts

Special attention should be given to roasts (beef, veal, pork) for successful defrosting. The shape and size of the roast is directly related to the amount of defrosting time (rolled roasts require longer defrosting times than flat-shaped roasts). Turning the roast and shielding thinner areas must be done during the defrosting process. To complete the defrosting process, the roast must stand for the suggested time given in your microwave cookbook. If time permits, defrost the roast for 3/4 of the defrosting time and allow it to complete defrosting in the refrigerator.

1. Put roast in the microwave oven. It is not necessary to remove paper or plastic wrappings, however, foil or metal wrappings must be removed. Set the oven for defrost and microwave for 1/2 of the defrosting time.
2. Unwrap the roast, turn it over and place it on a trivet set in a roasting dish. Do not use a trivet if the roast is more than 5 inches high. If any edges or thin areas have become warm, shield them with small pieces of aluminum foil that has been secured by a wooden toothpick.
3. Return the roast to the microwave oven and defrost for the remaining time.
4. After the second defrosting time, meat juices may begin to appear and the fat will glisten. Meat should feel cool to the touch.
5. Cover the roast and allow it to stand for the appropriate standing time to complete the thawing process.

## Defrosting Poultry

Poultry can be defrosted in the microwave oven. For successful defrosting, poultry should weigh no more than twelve pounds. Larger birds will require more defrosting time and careful shielding of protruding areas. It may be appropriate to defrost larger birds for 3/4 of the defrosting time and then allow poultry to complete the defrosting time in the refrigerator.

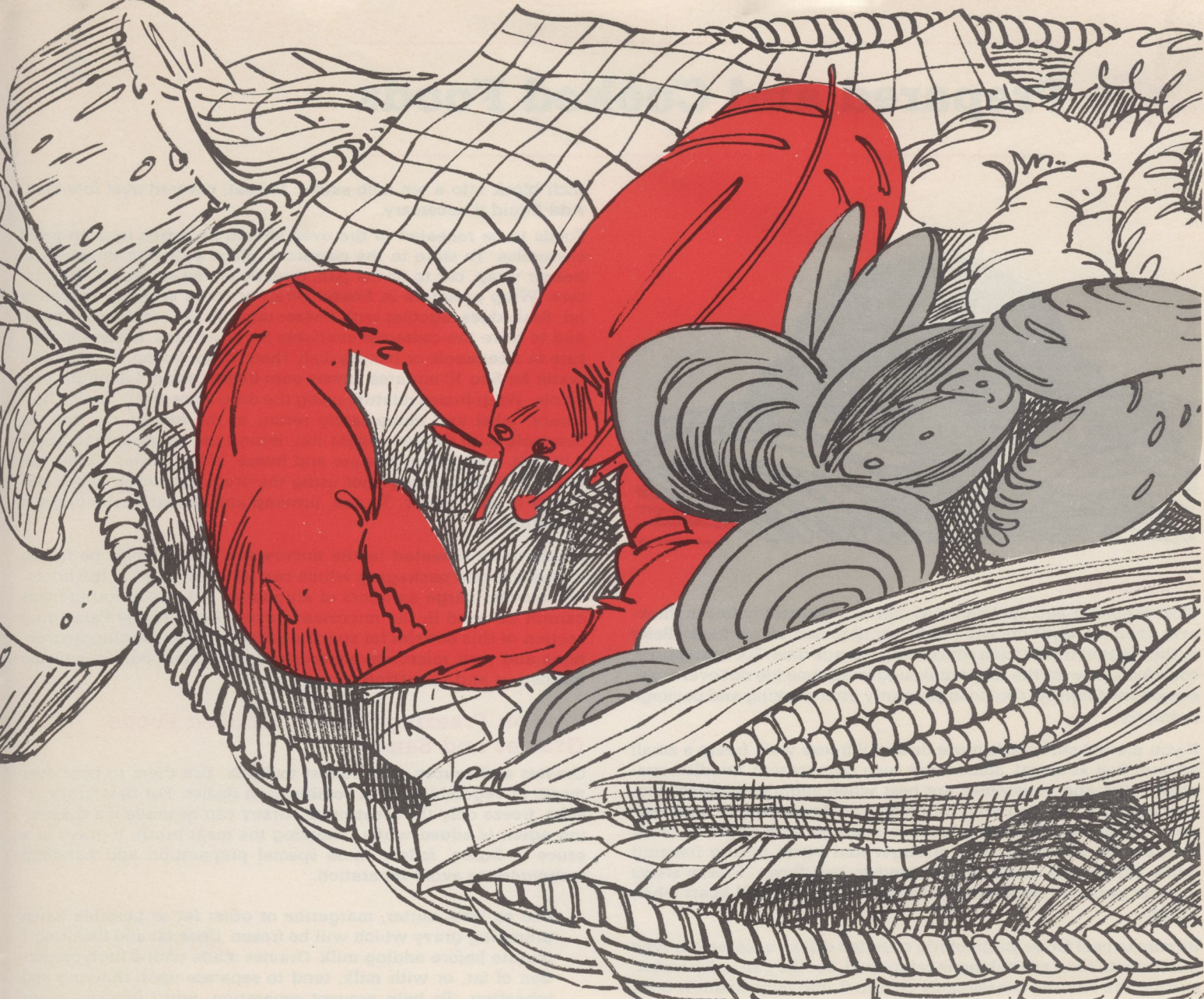
1. Put unwrapped poultry into the oven, breast side down. Set the oven for defrost and microwave for 1/4 of the defrost time.  
NOTE: The metal closure on the plastic cover does not have to be removed since a large food mass is in the oven and will absorb the microwave energy.
2. Rotate poultry 1/2 turn in oven. Microwave for 1/4 of the defrost time.
3. Remove all protective coverings and place poultry breast skin side down into the roasting dish. Shield any protruding areas such as the backbone, legs and/or wing tips with small pieces of aluminum foil secured by wooden toothpicks.
4. Turn the poultry over and return it to the microwave oven for 1/4 of the defrosting time. Turn poultry 1/2 turn in the oven and defrost for the remaining time.
5. Allow poultry to stand for the appropriate standing time.
6. The metal clamp should be removed from the legs. Giblets can be removed from the neck cavity by rinsing the cavity with cold water. Ice crystals on the poultry can also be removed by rinsing under cold water.

## Defrosting Fish Fillets and Steaks

Because of the light and porous texture of fish, it defrosts rapidly. Fish should be slightly icy at the end of the defrosting period. Do not defrost fish past the recommended defrosting time as toughness may occur.

1. Depending on the package size and shape, the defrosting time will vary. Follow your oven manufacturer's direction for specific times and recommended power levels.
2. Fish which has been frozen in microwave safe commercial wrappings may be defrosted in these containers without the use of an additional utensil. Home frozen fish should have a container placed directly under the fish to collect drippings.
3. Half way through the microwave oven defrosting period, turn the package over and rotate it 1/4 turn.
4. At the end of the minimum amount of defrosting time, unwrap fish fillets and check for pieces which can be easily loosened. Fish should not feel warm.
5. The remaining fillets can be separated by holding them under cold running water. Remove fillets as they loosen.





### Defrosting Whole Fish

Whole fish whether commercial or home frozen can be successfully defrosted in the microwave oven. Follow these directions.

1. Depending on the fish size and shape, defrosting time will vary. Follow your oven manufacturer's directions for specific times and recommended power levels.
2. Unwrap fish and place it in a microwave-safe utensil—a rectangular glass dish works well. Defrost fish for half of the minimum recommended defrosting time.
3. Fish should be turned over and rotated 1/2 turn. Defrost fish for second half of the minimum recommended defrosting time.
4. At the end of the defrosting period, fish should be cold yet pliable. Ice crystals may remain in the cavity. The crystals should be rinsed out under cold running water.

### Defrosting Loose Pack Shellfish (shrimp, scallops, etc.)

1. Arrange shellfish in microwave safe utensil. Shellfish should not overlap and should be evenly spread out.
2. Defrost for 1/2 of the minimum defrosting time, using the power level and defrosting time suggested by your oven manufacturer.
3. Rearrange shellfish and defrost for the remaining time.
4. Check shellfish after the minimum defrosting time—it should be cool and flexible yet still translucent.

### Defrosting Shellfish Frozen in Blocks (crabmeat, scallops)

1. Transfer frozen block of shellfish to a covered microwave safe utensil.
2. Defrost shellfish for 1/2 of the minimum defrosting time using the power level and defrosting time recommended by your oven manufacturer.
3. Block should be turned over. Break off outside loose pieces with a fork. The center of the block may still be firm.
4. Defrost for the remaining time. Break off additional loose pieces. Shellfish will still feel icy. Allow shellfish to stand. Break apart the remaining block.

### Defrosting Large Shellfish (whole crabs, whole lobsters, lobster tails)

1. Place shellfish in microwave-safe utensil and defrost for 1/2 of the minimum defrosting time using the power level and defrosting time recommended by your oven manufacturer.
2. Check shellfish for any warm areas. Shield these areas with small pieces of aluminum foil. Defrost shellfish for the remaining defrosting time.
3. Some ice crystals will still remain at the end of the defrosting time. Allow shellfish to stand to complete the defrosting process. Areas of the shellfish, such as a lobster tail, should be flexible at the completion of the defrosting period.





# Prepared and Cooked Foods



## Preparation

Most prepared and cooked foods can be successfully frozen, however, their storage time will be shorter than that of raw foods. Refer to the chart in this section concerning storage time. For best results, cook food only for the minimum suggested time (do not overcook), season food lightly, cool food promptly after cooking and package promptly.

If you are not sure if a favorite dish will freeze well, freeze a small amount first as a trial. Some foods such as macaroni, noodles, spaghetti, rice and vegetables are best when slightly undercooked. This prevents the food from softening and developing a "warmed-over" taste when reheated. Some seasonings, such as garlic, black pepper and cloves become stronger and bitter during freezing while celery and green pepper tend to lose flavor. Freeze stews without potatoes because they become soggy and fall apart when frozen.

Be sure to cool foods, particularly creamed dishes or casserole-type mixtures as soon as cooking is completed. Set the pan in ice water, stirring the mixture occasionally or turn it into large shallow pans and refrigerate, uncovered. Package the food as soon as it is cool.

## Packaging and Storing

When packaging prepared foods, plan ahead and consider the cooking method involved when reheating the food item. Freezing foods in a form and packaging which can be used in the thawing and reheating process can save time and money.

Foods to be reheated in a double boiler, such as creamed dishes and delicate foods, should be frozen in rigid freezer containers. To reheat, thaw the mixture in the refrigerator or place the container in cool water until the contents can be removed. Heat the food in a double boiler over simmering water.

Foods to be reheated in boiling water, such as sauces, should be frozen in boilable polyester pouches which are heat sealed. To reheat, fill a saucepan with enough water to surround the package and bring the water to a boil. Add the package to boiling water and cook until the food reaches the desired serving temperature.

Foods to be reheated in a skillet can be frozen in eight or nine inch cake pans. When frozen, let the container stand at room temperature for 15 minutes or until the food is soft enough to remove from the pan. Loosen the edges with a spatula and invert onto freezer paper. Remove the pan. Wrap the frozen mixture using the drug store wrap, seal, label and return it to a freezer. To reheat, place the unwrapped eight inch block into a nine inch skillet; or nine

inch block into a ten inch skillet. Reheat, covered over low heat. Add liquid if necessary.

Foods to be reheated in the oven should be frozen in oven-proof casseroles. To store in the casserole, place a double thickness of freezer wrap, cut to fit the pan, directly on the surface of the mixture. Wrap casserole in freezer wrap or cover with the casserole lid. Seal edges together with freezer tape. To save on freezer space, and to have the casserole available for other uses, freeze the mixture in a casserole or baking dish; then, when frozen, set it in cool water for 5 to 10 minutes. Invert onto freezer wrap. Lift off the casserole. Wrap frozen mixture using the drug store wrap. Seal, if necessary, label and immediately return to the freezer. Or, line the casserole with freezer-weight foil, letting the edges extend about 5 inches. Pour in the mixture and freeze. When frozen, lift out the mixture. Seal ends together using the drug-store wrap, label, and return to the freezer. To use, unwrap and reheat in the original casserole.

Foods to be reheated in the microwave oven should be frozen in utensils and packaging which can be safely used in the microwave oven. Large amounts of aluminum foil and metal utensils cannot be used in the microwave oven. Refer to the Packaging section of this booklet for specific microwave packaging instructions and your microwave manufacturer's cookbook for specific defrosting and reheating time.

## Tips on Freezing Specific Cooked Foods Gravies and Sauces

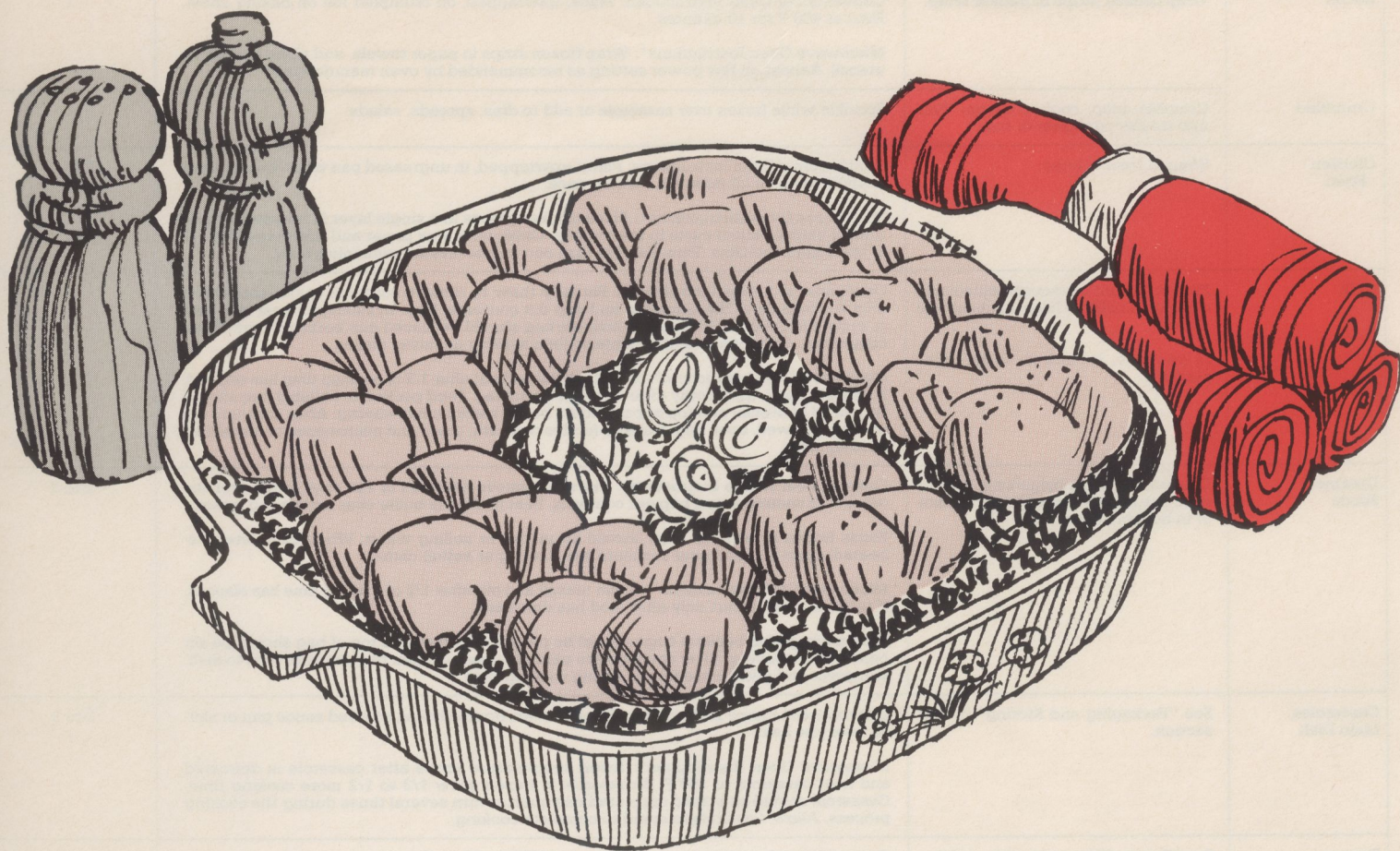
Gravies and sauces add interest to foods. Use them to pour over meats or vegetables, or in combination dishes. For best gravy results, freeze only the meat broth. Gravy can be made if a thickening agent is added while reheating the meat broth. If gravy or a sauce is frozen, follow these special preparation and handling techniques to avoid separation.

1. Use as little butter, margarine or other fat as possible when preparing gravy which will be frozen. Cook fat and flavoring 1 minute before adding milk. Gravies made with a high proportion of fat, or with milk, tend to separate upon thawing and reheating. To help prevent separation, whirl finished sauce in the blender or beat it with an electric mixer at high speed before freezing.
2. Sauces and gravies made with chicken or beef broth or tomato juice freeze well.
3. Natural cheeses tend to produce a rough texture, and also increase the tendency of milk sauces to separate. Smoother sauces result if processed cheese or cheese food is used.

## Casseroles

1. For those with a white sauce base, such as macaroni and cheese, refer to the preceding section on gravies and sauces.
2. When using macaroni, noodles or spaghetti in casseroles, be sure to undercook them slightly. They will finish cooking during the reheating process.
3. Most casseroles are best if frozen before baking.
4. Freeze casserole toppings in separate packages to add during the last 40 minutes of baking time.
5. To bake a frozen casserole, place the casserole, unwrapped and uncovered in a preheated oven while frozen, or after partially thawing for 3 hours at room temperature or overnight in the refrigerator. A casserole should not be thawed entirely at room temperature because of the possibility of food poisoning. The casserole may also be thawed using the defrost setting on a microwave oven and then cooked on the appropriate power level. Follow your microwave oven manufacturer's instructions for specific times and power levels.





Baking times for a frozen casserole prepared in a conventional oven are as follows:\*

Container Size (Deep Casserole)	Time (approximate)
1 quart	1¼ hours
2 quarts	1½ to 2 hours
3 quarts	2 to 2½ hours

\*Frozen casseroles cooked in a microwave oven will require 1/3 to 1/2 additional cooking time. Use the temperature probe, if available, and heat casserole to 150° to 160°F. Probe should be inserted when center of food is thawed enough to permit easy insertion. Do not force probe into the center of a frozen casserole as the probe could be damaged. Casserole should be stirred several times during the cooking process to insure even heat distribution. Casseroles which cannot be stirred, such as lasagne, should be turned one quarter turn several times during the cooking process. At the completion of the cooking time, cover the casserole, and observe the standing period suggested by the oven manufacturer so that cooking will be completed.

6. If the casserole seems dry during baking, pour 1/4 to 1/2 cup milk or broth over the top.

### Cooked Roasts, Poultry

1. Remove any stuffing from the poultry.
2. Refrigerate roasts, loosely covered, as soon as possible. It is not necessary or safe to let them cool slowly at room temperature.
3. When cool, cut into meal-size portions, or cut into slices, or remove the meat from the bones in large pieces.

4. Wrap meal-size portions of meat slices and/or pieces in freezer wrap. Seal, if necessary, label and freeze.
5. Slices and small pieces may be frozen in rigid containers or in aluminum foil pans, covered with broth or gravy.

### Frozen Dinners

Freeze your own individual dinners which can be reheated in your conventional oven or microwave oven. Depending on the method of reheating, package the dinners in either divided foil trays left from commercially frozen dinners or heavy-weight partitioned paper plates and cover them with freezer-weight foil or heavy-weight freezer paper.

Leftover meats and vegetables may be used if juicy and not overcooked. Cover slices of cooked turkey, meat loaf, roasts with gravy or sauce to keep them moist. Dot vegetables with butter or margarine.

To reheat in a conventional oven, remove foil from the entrees such as fried chicken, macaroni and cheese, mashed potatoes (if a crusty top is desired) and from any food that should brown. Top casseroles with buttered bread crumbs, grated cheese or sprinkle with paprika.

To reheat in a microwave oven, place tray wrapped with freezer wrap in microwave oven at the power level and cooking time suggested by the oven manufacturer. Tray should be rotated one-half turn after one half of the cooking time. Some foods, such as french fried foods, batter coated foods and foods which contain a high amount of dough, do not microwave well. These dinners should be heated in a conventional oven.



## How to Freeze Prepared Foods

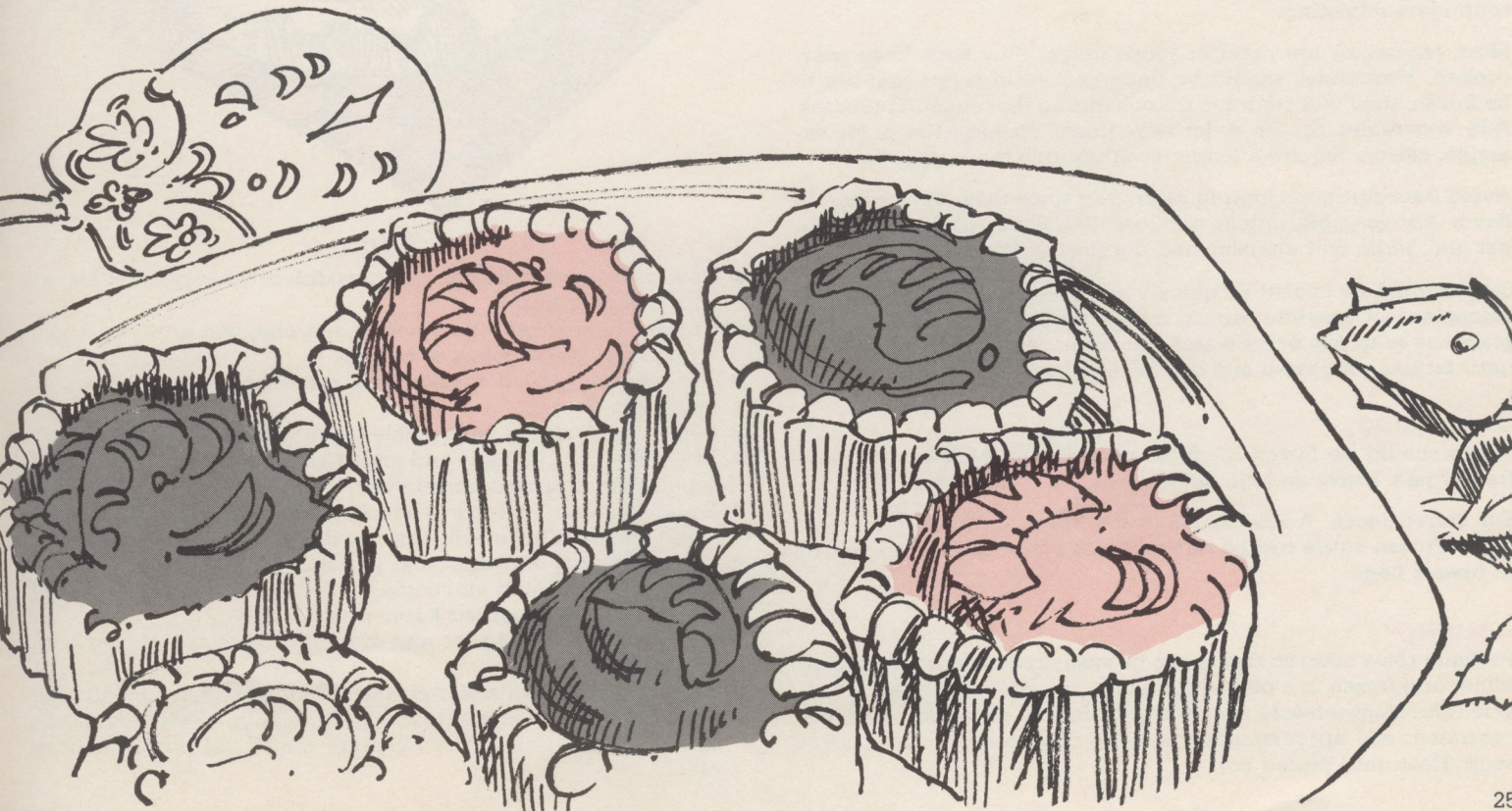
Food	To Freeze	To Use	Storage (months)
Bacon	Wrap cooked strips in freezer wrap.	Conventional Oven Instructions: Place, unwrapped, on crumpled foil on baking sheet. Heat at 400°F for 10 minutes.  Microwave Oven Instructions*: Wrap frozen strips in paper towels, and place in cooking utensil. Reheat on low power setting as recommended by oven manufacturer.	1
Crumbled	Crumble crisp, cooked bacon. Turn into freezer container or bag.	Sprinkle while frozen over casserole or add to dips, spreads, salads.	1
Chicken Fried	Wrap in freezer wrap.	Conventional Oven Instructions: Place, unwrapped, in ungreased pan while frozen. Heat in 400°F oven for 20 minutes, turning once.  Microwave Oven Instructions*: Place chicken pieces in a single layer in microwave safe utensil with meatiest parts to the outside. Cover with wax paper and microwave for 1/2 of the suggested time. Turn dish 1/2 turn and microwave for remaining time.	2 to 3
Chili	Pack in airtight freezer containers and cover or in boilable bags and heat seal closed.  If desired, freeze in individual portions.	Conventional Range Instructions: Partially thaw to remove contents or run cool water over the outside of the container and pop out contents. Heat in saucepan over low heat or in double boiler. Chili frozen in boilable bag should be placed into boiling water. When completed, open bag and pour contents into serving or eating dishes.  Microwave Oven Instructions*: Cover utensil and stir after 1/2 of cooking time has elapsed. If probe is used, insert only after food has defrosted. Food packed in boilable bag should be placed in utensil and top of bag should be slit before microwaving. After contents are partially thawed, open bag, transfer food to dish, stir, cover and microwave for remaining cooking time.	2
Creamed Foods	Cool promptly in refrigerator. Pack in rigid containers leaving head space or in boilable bags.	Conventional Range Instructions: Thaw to remove contents or run cool water over the outside of container and pop out contents. heat in double boiler over simmering water.  Foods frozen in boilable bags should be placed in boiling water. When completely reheated, open bag and pour contents into serving or eating dishes.  Microwave Oven Instructions*: Cover utensil and stir after 1/2 of cooking time has elapsed. If probe is used, insert only after food has defrosted.  Food packaged in boilable bags should be placed in utensil and top of bag should be slit before microwaving. After contents are partially thawed, open bag, transfer food to dish, stir, cover and microwave for remaining cooking time.	2 to 3
Casseroles, Main Dish	See "Packaging and Storing" in this section.	Conventional Range Instructions: Heat in oven, double boiler, covered sauce pan or skillet over low heat.  Microwave Oven Instructions*: Insert temperature probe after casserole is defrosted and heat casserole to 150°F. If casserole is frozen allow 1/3 to 1/2 more cooking time. Casserole should be stirred or rotated one quarter turn several times during the cooking process. Allow casserole to stand to complete cooking.	2 to 3
Frozen Dinners	See "Frozen Dinners" in this section.	Conventional Oven Instructions: Bake at 400°F for 25 to 40 minutes.  Microwave Oven Instructions*: Remove foil from commercially prepared dinners. If foil tray is over 3/4" high, remove food from container and place in cooking utensil. Put tray back in box and place box or cooking utensil in oven. Homemade frozen dinners, wrapped in freezer paper may be put directly into the oven. Follow oven or food manufacturer's power level and time suggestions. Turn dinner 1/2 turn after 1/2 of cooking time.	1 to 2
Meat Loaf Baked	Freeze baked and cooled loaf whole or cut into slices. Separate slices with double thickness freezer wrap.	To serve cold, thaw wrapped, overnight in refrigerator. If slices were separated: unwrap, place on tray, cover, refrigerate until thawed.  Microwave Oven Instructions*: If oven is equipped with a defrost setting, defrost meat loaf following oven manufacturer's instructions.	2 to 3
Unbaked	Prepare favorite recipe using half as much salt as usual. Line dish with 2 pieces of wax paper allowing the paper to extend past all sides of the dish. Shape meat in baking dish, cover with wax paper and place in freezer. When frozen, remove meat and package in freezer wrap.  Individual portions may be frozen on a cookie sheet which is lined with wax paper. When solid, package in freezer bags or wrap.	Conventional Oven Instructions: Place frozen meat, unwrapped, in lightly greased pan while frozen. Bake at 350°F for 1-1/2 to 1-3/4 hours. Use less time for smaller servings.  Microwave Oven Instructions*: Cover pan with plastic wrap leaving a small opening which will vent steam. Cook meat loaf for 1/2 time, rotate 1/2 turn. Temperature probe may be inserted at this point if meat loaf is completely defrosted. Cook meat loaf for remaining time or to internal temperature of 170°F.	4
Meat, Poultry Slices or Pieces, in Broth	Freeze in rigid containers, oven-proof baking dishes, or boilable bags.	Conventional Range Instructions: Partially thaw, in rigid containers, in refrigerator, or run cool water over the outside of the container and pop out contents. Heat in covered skillet or sauce pan over low heat or in ovenproof dishes in a 350°F oven.  Microwave Oven Instructions*: Cover utensil and stir after 1/2 of cooking time has elapsed. Food packaged in boilable bags should be placed in a utensil and top of the bag should be slit before microwaving. After contents are partially thawed, open bag, transfer food to dish, stir, cover, and microwave for remaining cooking time.	6
Un sliced	Cool quickly in refrigerator, uncovered. Wrap in freezer wrap.	Thaw, wrapped, overnight in refrigerator or defrost in a microwave oven. (Excellent for cold plates.)	3 to 4



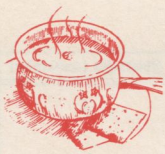
How to Freeze Frozen, Prepared Foods continued

Food	To Freeze	To Use	Storage (months)
Peppers Baked Stuffed	Stuff peppers as usual (do not parboil peppers). Wrap individually in freezer wrap or place in baking dish and cover the top with freezer wrap.	Conventional Oven Instructions: Unwrap and bake while frozen in shallow baking dish, uncovered, at 375°F for 1 hour.  Microwave Oven Instructions: Cover pan with plastic wrap leaving a small opening which will vent steam. Cook peppers for 1/2 time, rotate 1/2 turn, cook for remaining time.	2
Potatoes Baked Stuffed	Bake and stuff as usual. Refrigerate until cool. Freeze on tray until firm. Wrap in freezer wrap.	Conventional Oven Instructions: Unwrap and bake on cookie sheet or shallow baking dish at 350°F for 30 minutes. Sprinkle with grated cheese, if desired, and bake 5 minutes until cheese melts.  Microwave Oven Instructions*: Cover with wax paper and reheat for recommended time. Rotate dish, 1/2 turn, after half of cooking time.	2
Rice, cooked	Pack in freezer containers or bags.	Conventional Range Instructions: Heat in double boiler over simmering water.  Microwave Oven Instructions*: If reheating a small quantity, add a pat of butter or margarine to top of rice. If reheating a large quantity (more than 2 cups) add 1 to 2 table- spoons water. Cover tightly. Reheat. Stir after 1/2 of cooking time to separate and fluff rice.	4
Soups	Pack in freezer containers or boilable bags.	Conventional Range Instructions: Partially thaw to remove contents or run cool water over the outside of container and pop out contents. Heat in sauce pan over low heat or in double boiler. Soup frozen in boilable bag should be placed in boiling water; when completely reheated, open bag and pour contents into serving or eating dishes.  Microwave Oven Instructions*: Cover utensil and stir after 1/2 of cooking time has elapsed. Food packaged in boilable bags should be placed in utensil and top of bag should be slit before microwaving. After contents are partially thawed, open bag, transfer food to dish, stir, cover and microwave for remaining cooking time.	1 to 3
Spaghetti Sauces Meat Sauces	Cool quickly. Pack in rigid containers or boilable bags; leave head space.	Conventional Range Instructions: Heat in sauce pan over low heat or in double boiler.  Microwave Oven Instructions*: Cover utensil and stir after 1/2 of cooking time has elapsed. Food packaged in boilable bags should be placed in utensil and top of bag should be slit before microwaving. After contents are partially thawed, open bag, transfer food to dish, stir, cover and microwave for remaining cooking time.	3 to 4
Stews	Freeze without potatoes. Undercook other vegetables or add when re-heating. Cool quickly. Pack in rigid containers or boilable polyester freezer bags.	Conventional Range Instructions: Partially thaw to remove contents or run cool water over the outside of container and pop out contents. Heat in sauce pan over low heat or in double boiler. Stew frozen in boilable bag should be placed in boiling water. When completed, open bag and pour contents into serving or eating dishes.  Microwave Oven Instructions*: Cover utensil after 1/2 of cooking time has elapsed. If probe is used, insert it only after food has defrosted. Food packaged in boilable bags should be placed in utensil and top of bag should be slit before microwaving. After contents are partially thawed, open bag, transfer food to dish, stir, cover and microwave for remaining cooking time.	1 to 3

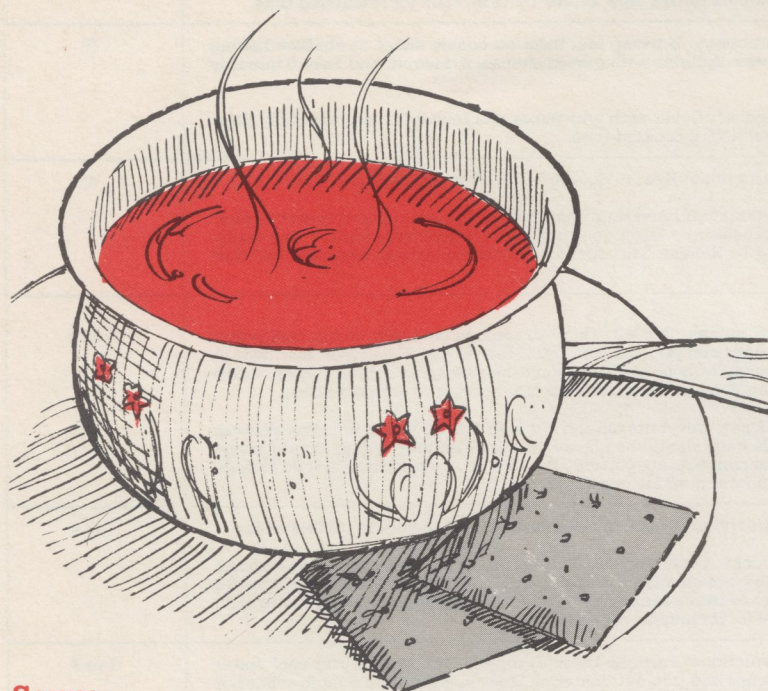
Microwave oven's wattage output differs from one manufacturer to another.  
\*Follow oven manufacturer's suggested cooking times and power levels for best results.







# Soups, Salads and Sandwiches



## Soups

Most soups freeze well. Some of the most satisfactory soup recipes for freezer to table use contain dried beans, split peas, oysters, lobster, chicken, beef cubes and/or vegetables. Cream soups tend to separate after freezing, but usually become smooth if stirred during the reheating process. For best flavor and quality, plan to use frozen soups within 2 to 3 months.

## Preparation

Prepare your favorite soup recipe. If freezer space is limited, you may wish to concentrate the soup by eliminating one-half of the liquid required in the recipe. This liquid should be added to the soup upon reheating.

Most vegetables are good in soups unless they have been overcooked. Vegetables should be undercooked in soups that are to be frozen; they will continue to cook during the reheating process. Add vegetables in the order of required cooking times, for example, carrots require a longer cooking time than potatoes.

Avoid freezing soups high in seasoning since they may change in flavor. For example, onions will lose their flavor while green pepper and garlic will intensify and develop off-flavors.

Soup should be cooled as quickly as possible to prevent the development of bacteria which causes spoilage. To cool quickly, place the soup pan in ice water. Stir occasionally. Refrigerate soup until fat has congealed and can be skimmed off the top.

## Packaging

Soups should be frozen in rigid containers or wide-mouth glass freezer jars. Leave enough head space, cover and freeze.

For convenience, freeze concentrated broths in plastic ice cube trays. Frozen cubes can be removed upon freezing and packaged in freezer bags.

## Serving

Partially thaw soup so that it can be easily removed from the container or if frozen in a plastic container, run cool water on the outside until soup releases from the container. If soup has been concentrated, add approximately one cup of water for every pint of soup. Heat until piping hot.

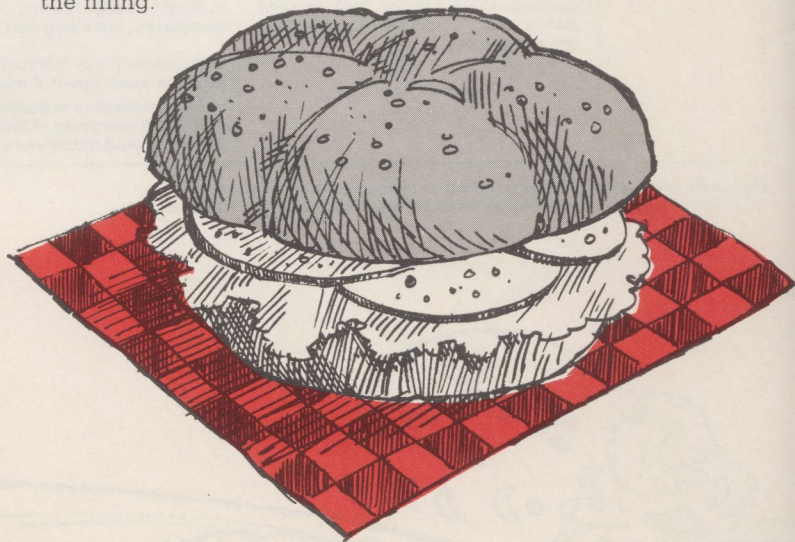
## Sandwiches

Frozen sandwiches are great time-savers for lunch boxes or parties. All breads freeze well, but some fillings do not. Select sliced cooked meats, cold cuts, cheese, peanut butter, meat or fish spreads. Omit crisp salad type vegetables, such as lettuce, tomatoes and carrots since they lose their crispness during freezing. Cooked egg white should not be frozen as it becomes tough and develops off-flavors. Sliced natural cheese may become crumbly after freezing. To avoid the crumbling, grate the cheese before freezing or use a processed cheese which does not crumble.

Use mayonnaise or salad dressing sparingly, as both tend to separate during freezing and make sandwiches soggy. To check your favorite brand of commercial or homemade mayonnaise, freeze a small amount in a covered custard cup overnight. Let mayonnaise thaw and check it for any separation or watering. You may find that homemade mayonnaise freezes better than commercial. For variety in flavor, try using bottled French, Russian or Italian dressings as filling binders. They add flavor and freeze well.

## Preparation

To prevent sogginess, spread butter or margarine evenly on one side of each slice of bread, making sure that the entire surface is covered. Then spread filling on one side of bread. Top sandwich with remaining slice of bread which has the buttered side facing the filling.



## Suggested Sandwich Fillings

- Cold sliced cooked meats, cold cuts, fish or meat spreads, cheese slices, peanut butter.
- Cooked hamburgers that have been chopped and moistened with sweet pickle relish or catsup.
- Chopped or grated frankfurters moistened with mustard or mayonnaise.
- Deviled ham mixed with pickle relish and cream cheese.
- Dried beef chopped fine and mixed with cream cheese and seasoned with prepared horseradish.
- Equal amounts of tuna or chicken and shredded Cheddar or Swiss cheese, plus mayonnaise to moisten.
- Equal amounts of peanut and peach or apple butter.
- Equal amounts tuna and cottage cheese moistened with sweet pickle relish and bottled Russian dressing.
- Mixture of grated cheese and crumbled bacon combined with cream cheese.
- Mixture of sharp Cheddar cheese shredded and combined with cream cheese and pimento and seasoned with worchestershire sauce, tabasco sauce, dry mustard, garlic salt and/or minced onion.



## How to Freeze Sandwiches

Sandwiches	To Freeze	To Use*
For Lunch Boxes	Wrap individually in foil, plastic or freezer paper. Do not use waxed paper or sandwich bags, as neither is moisture-proof.	Pack, while frozen, in lunch box. Sandwiches will be thawed and fresh-tasting by lunch time.
Hot Sandwiches	Spread buttered bread with desired filling. Cover with double thickness freezer wrap then with top slice bread. Wrap.	Remove top slice and wrap. Place filling side up on broiler pan. Broil 7 inches from heat 8 to 10 minutes. Cover with top slice and broil 1 minute.
Party Sandwiches	Freeze on tray until firm. Place in freezer container or box in 2 or 3 layers, separating each with 2 sheets freezer wrap; or lay on foil covered cardboard circle and slip into freezer bag. If box is used, wrap with freezer wrap.	Unwrap and place on serving tray or platter, cover and thaw 30 to 60 minutes. Serve, or refrigerate, covered, until ready to serve.
Rolled or Layered Sandwiches	Freeze, uncut, wrapped in freezer wrap or containers.	Thaw, wrapped, in refrigerator or at room temperature 1 to 2 hours. Cut in slices 1/2 to 3/4 inch thick. Place on serving tray. Serve or refrigerate covered.

\*For best quality store only one month.

Although most foods should be frozen directly on one of the freezer shelves, sandwiches are the exception. Freeze them on top of other packages to avoid having the bottom slice become soggy upon thawing.

Regular sandwiches which are left in their wrappings will thaw in 2 to 3 hours. Sandwich filling packed in containers should be thawed overnight in the refrigerator so that it will be spreadable the next morning. Small open face sandwiches and tea sandwiches will thaw at room temperature in their original wrapping in 30 to 60 minutes. Do not refreeze thawed sandwiches. Use frozen sandwiches within 1 month.

## Additional Suggestions

- For lunch box variety, instead of bread use frankfurter or hamburger buns. Nut and fruit breads spread with cream cheese softened with cream, milk or fruit juice also add variety.
- If you plan to freeze sandwiches for lunch boxes for no longer than 5 days, they may be wrapped individually in plastic sandwich bags or double thicknesses of waxed paper. Place in a freezer bag. Place bag across other packages in freezer.
- Jams and jellies tend to soak into breads. When using, first spread both slices of bread with softened butter, cream cheese or peanut butter. Or, try combining equal parts peanut butter and marmalade.
- Freeze sandwich filling in rigid containers or spread in 8" square pan. Mark off in 4 squares. Freeze. When frozen, remove each square with spatula. Separate with freezer wrap. To use, place each between 2 slices of buttered bread. Wrap. Let thaw at room temperature for 1 hour. A frozen filling square can be placed on buttered bread and toasted under broiler seven inches from heat for 8 to 10 minutes.
- Crackers become soggy and tough, so freeze spreads to use on them separately. Place thawed spread on crackers just before serving, or serve in bowl and let guests spread their own.
- For unexpected guests, keep a one-half pound roll of liver sausage or Braunschweiger in your freezer. To use, thaw wrapped at room temperature. Spread on crackers, Melba toast.

## Special Sandwiches

Tea sandwiches freeze well. To prepare, use thinly-sliced breads which have the crusts removed. If desired, cut the bread into fancy shapes with cookie cutters. Spread one side of each bread shape with softened butter or margarine and then with the desired sandwich filling.

Rolled tea sandwiches can be prepared by removing the crusts from the thinly-sliced bread. Roll each bread slice lightly with a rolling pin; this helps to make the bread easier to roll up. Spread one side of each bread slice with softened butter or margarine, then with the desired sandwich filling. Place thin strips of pickle, pimento or cheese along one edge of the buttered side. For additional variety use Vienna sausages, frankfurters or cheese strips as a filling. Roll and wrap. Slice when ready to serve.

Layered tea sandwiches can be prepared by using three slices of bread. (Variety breads of the same size are good selections.) Spread butter or margarine on one side of the outside bread slices; spread butter or margarine on both sides of the middle bread slice. Place filling on top of bread slice which has the buttered side up, add middle slice of bread, place additional filling on top of this bread slice, then add the third slice of bread, buttered side down. If desired, alternate thin strips of pimento or pickle strips across the sandwich filling. Firmly press the stack of bread slices together, trim crusts and cut into desired lengths.

## Salads

Most molded salads which have a cheese, cream or milk base freeze well. Salad greens, celery and tomatoes do not freeze well because they lose their crispness. Mayonnaise or home-cooked dressing tend to separate when frozen in salads. If these dressings are used, mix a small amount of them with cream cheese or whipped cream to prevent separation. Commercial salad dressings freeze well when combined with meat, fish or poultry for freezing. For best results, using more than the required salad dressing for a frozen salad as it tends to be absorbed by the food during freezing.

## Preparation

Keep in mind the following facts when preparing salads for freezing.

- Molded gelatin salads will freeze well if handled properly. Reduce the amount of liquid used by one fourth unless the recipe has been specifically developed for freezing. For example, if the directions call for 2 cups of liquid, use 1-1/2 cups.
- Meat, poultry, fish and seafood pieces can be frozen separately or in molded salads.
- Mixed fresh fruits can be frozen together, partially thawed and then mixed with salad dressing for serving.
- Nuts become bitter and discolored during freezing. Add these items to the salad after thawing.
- Some fruits do not freeze well. Bananas and apples soften and become mushy during freezing. Add these items at serving time.

Salads may be frozen in large blocks or in individual portions. Allow the salad to freeze in a flat pan or a cylindrical container. When frozen, overwrap the entire salad or cut into individual portions, separate with wax paper and overwrap for freezing.

Salads may also be frozen in individual muffin liners or paper cups. Line a muffin pan with individual liners, fill each with salad and allow them to freeze. When frozen, remove from muffin pan and package in a freezer bag or other freezer container.

## To Use:

Never allow frozen salads to thaw completely; serve salad when a few ice crystals remain. Garnishes and salad greens should be added just before serving.





# Vegetables

Most vegetables can be frozen, except those ordinarily eaten raw such as salad greens, celery, onions, tomatoes, radishes, etc. because they do not retain their crispness. Celery, onions, and cabbage, however, may be frozen for use in cooked dishes. For optimum quality, plan to use most frozen vegetables within 8 to 12 months.

To find out the best variety of a vegetable for freezing in your area, contact your local county agent or state agriculture college. When you purchase vegetables for freezing, be sure they are really fresh and in prime condition so when they are frozen correctly they will have garden-fresh taste. The less time between harvesting and freezing, the better the frozen vegetable. For maximum quality, taste and nutritive value, vegetables should be frozen within 2 to 3 hours after picking.

Prepare vegetables for freezing as you would when serving them fresh. Wash vegetables thoroughly in cold running water; discard imperfect and overripe ones. In general, underripe vegetables have not fully developed their sweetness and flavor, while overripe produce has poor flavor and texture. Freezing preserves the flavor, but it cannot improve it. Sort according to size, so that the contents of each package will be uniform.

## Preparation

With two or three exceptions, vegetables must be blanched (scalded) before freezing. Vegetables which are used exclusively for their flavor in cooking such as green onions, hot peppers and herbs need not be blanched.

Blanching is necessary to stop the enzyme action which is responsible for the vegetable maturation process. If the enzyme action is not stopped, the vegetables will continue to mature and the fresh flavor will be destroyed within one month of freezer storage. Blanching also removes surface dirt and organisms, heightens the color of the vegetable and helps to retain the nutritive value of the vegetable.

Blanching may be done using your conventional range or microwave oven. The following directions are for the conventional range. For specific microwave blanching instructions, see the section on Blanching Vegetables in the Microwave Oven.

Vegetables may be blanched by one of two methods, in boiling water or over steam. The boiling water method is preferable as it provides an even method of blanching. Steam blanching can be used for those vegetables such as broccoli, that are delicate and leafy.

## Blanching With Boiling Water

1. In a large pan (do not use iron or copper utensils) with a tight-fitting lid, bring 1 gallon of water to a full boil. If blanching leafy greens, bring 2 gallons of water to a full boil.

NOTE: Water should be changed after 3 or 4 blanching periods. If reusing water, maintain the water at the proper level. Vegetables which have strong odors or colors may require more frequent water changes.

2. Place 1 pound prepared vegetables into colander, wire basket or cheesecloth bag. Immerse in actively boiling water, cover. (Start timing immediately.) Keep the heat on high and follow the blanching time given in the chart. It is important to follow these times as underblanching stimulates the activity of the enzymes and is worse than no blanching at all. Overblanching causes loss of color, nutritive value and flavor.
3. As soon as blanching time is up, lift vegetables from boiling water and place in enough icy cold water to cover. This will stop the cooking process. Let cool for the same amount of time as the blanching time. Periodically stir vegetables during cooling time. Vegetables should be cold in center when cooling time is completed.

NOTE: Cooling water may be reused, however, additional ice should be added to keep water as cold as possible. The frequent addition of ice will help to reduce the time vegetables must be held in cold water.

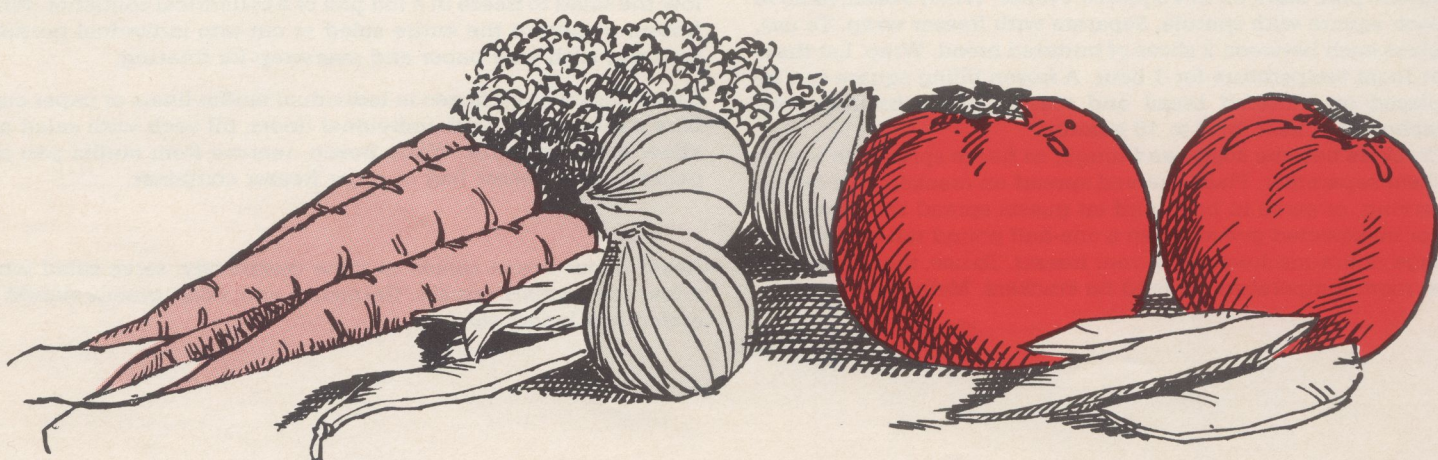
## Blanching With Steam

1. Pour 1 to 3 inches of water in a large pan (do not use iron or copper utensils) and bring the water to a full boil.
  2. Place a single layer of the prepared vegetable into a wire basket or cheesecloth bag. Suspend this rack or bag over the boiling water. Place the cover on the pan and start timing immediately.
- NOTE: Blanching vegetables by the steaming process will take longer than the boiling water process.

3. Cool as directed above for blanching in boiling water.

## Packaging

Remove vegetables from cooling water and drain in a single layer on paper towels or clean dish towels. Excess moisture that is not removed will freeze into ice crystals which can crush the vegetable cells and soften the texture of the vegetable making it less desirable. Vegetables may be packaged by either of the following methods.





**Dry Pack** — Pack drained vegetables in freezer containers, leaving 1/2" head space for pint containers of solidly packed vegetables such as greens, mashed squash or pumpkin. Refer to freezer chart for specific packaging information.

**Loose Pack** — Spread drained vegetables in single layer on tray. Freeze until solidly frozen. Pack in freezer bags or heat-seal pouches. After vegetables are in bag, press out as much air as possible. Fasten bag with a wire tie or heat seal bag closed. This is a convenient way to pack small vegetables such as peas, lima beans and cut green beans. Individual portions can be removed from the bag and cooked as needed.

## Labeling

Label containers with the vegetable name, date, method of preparation and intended end use and freeze at once. Place in freezer, directly on shelves or against sides or on bottom in chest freezer. Package should be placed in a single layer, top side up, leaving 1 inch space between packages. After 24 hours, packages may be stacked for storage.



## How to Freeze Vegetables

(All vegetables will keep satisfactorily for at least 6-12 months at 0°F unless otherwise noted.)

Vegetable	Preparation	Pounds of Vegetable Necessary to Make 1 Pint	Recommended Method of Blanching/ Blanching Time in Minutes	Packaging	Time Necessary To Cook 1 Pint*	Serving Suggestions
Artichokes	Freeze only tender, uniformly colored artichokes with compact globes and tightly closed heads. Remove outer leaves until light yellow or white leaves appear. Cut off tops of buds, trim to a cone. Wash and drain.	-----	Water Blanch To prevent darkening, add 1T lemon juice to each quart scalding water. Hearts 2-3 Whole 8-10	Freezer bags or containers.	5 to 10	Serve chilled in salads.
Asparagus Spears	Select young tender tips. Wash, remove woody stem parts and scales. Sort by thickness.	1 to 1-1/2 lbs.	Water Blanch Small Spears 3 Large Spears 4	Freezer wrap alternating tip and stem ends.	5 to 10	For low calorie season use lemon wedge in place of butter.
Cut up	Cut in 2 inch lengths.	1 to 1-1/2 lbs.	Water Blanch 2-1/2-3	Loose pack in freezer bags or dry pack in freezer containers.	3 to 4	Sprinkle with grated Parmesan cheese.
Beans Green or Wax	Select young tender pods. Sort according to size. Wash. Snip off ends. Cut in 1 inch lengths or leave whole.	2/3 to 1 lb.	Water Blanch 3	Loose pack in freezer bags or dry pack in freezer containers.	12 to 18	Toss with shredded swiss or cheddar cheese or garnish with crumbled bacon.
Lima	Shell and sort according to size.	2 to 2-1/2 lbs.	Water Blanch Baby Limas 3 Large Limas 4	Loose pack in freezer bags or dry pack in freezer containers.	15 to 20	Sprinkle with crisp bacon bits.
Beets	Select small tender beets. Cook until tender; remove skins. Slice, dice or leave tiny beets whole.	1 - 1/4 lbs. without tops	Water Blanch cook until tender.	Loose pack in freezer bags or dry pack in freezer containers.	Heat to serving temperature desired.	Top with sour cream and Blue Cheese.
Broccoli	Wash and trim off outer leaves and imperfect stalks. Soak in solution of 1 teaspoon salt to 1 gallon water for 1/2 hour to remove any insects. Rinse and drain. Separate into sections.	1 lb.	Steam Blanch Med. pieces 4 Large pieces 5	Freezer wrap alternating blossom and stem ends, loose pack in freezer bags or dry pack in freezer containers.	5 to 8	Serve with lemon butter or toasted chopped pecans.
Brussel Sprouts	Soak in salt solution for 1/2 hour (see broccoli). Rinse thoroughly. Trim off stem ends. Sort to size.	1 lb.	Water Blanch Med. 4 Large 5	Loose pack in freezer bags or dry pack in freezer containers.	4 to 9	Sprinkle with celery seed.

\*Cook in 1/2 cup water which has been lightly salted. Exceptions: Lima beans require 1 cup water. corn on the cob should be covered with water.

## Cooking Frozen Vegetables

Frozen vegetables cook in one-half to two-thirds of the time required for fresh vegetables, since they have been partially cooked during blanching. All vegetables, except frozen corn on the cob, may be cooked while frozen. You may prefer to thaw asparagus spears, broccoli and greens partially for easier separation.

Select a cooking method appropriate to the vegetable and the meal. Vegetables should be served immediately upon completion of cooking time since nutritive value is lost if vegetables stand after cooking. In any vegetable cooking process make sure that a tight-fitting lid is used to keep the air volatile vitamin loss to a minimum.

1. Vegetables may be cooked in a minimum amount of water or steamed. To cook, place one pint of frozen vegetables in saucepan with 1/4 to 1/2 cup salted water. Cover. Bring to a boil over high heat. Cook for minimum suggested time.
2. Vegetables may be cooked with 1 to 2 tablespoons butter or margarine and 2 to 3 tablespoons water using a heavy saucepan with a tight-fitting lid.
3. Vegetables may be steamed using a wire basket which fits into a saucepan. A minimum amount of water is placed in the bottom of the saucepan. Water level should be below wire basket. Bring water to a boil, add vegetable and cover. Vegetables should cook 3 to 5 minutes longer than vegetables in boiling water.
4. Vegetables may be oven baked. Place vegetable in covered casserole which has been buttered, season as desired. After 15 minutes vegetables should be separated, and returned to the oven for additional 45 minutes.
5. Vegetables may be cooked in a microwave oven. The quickness of this method of cookery preserves the bright color and the nutritive value of the vegetable. Refer to your oven manufacturer's guide for specific instructions.



## How to Freeze Vegetables continued

Vegetable	Preparation	Pounds of Vegetable Necessary to Make 1 Pint	Recommended Method of Blanching/ Blanching Time In Minutes	Packaging	Time Necessary To Cook 1 Pint*	Serving Suggestions
Carrots	Select young, tender carrots which are medium sized. Wash and scrape. Slice or dice into 1/4 inch pieces. Very small carrots may be left whole if scalded for 5 minutes.	1-1/4 to 1-1/2 pounds	Water Blanch 3-3-1/2	Loose pack in freezer bags or dry pack in freezer containers.	5 to 10	Sprinkle with parsley flakes, dried dill or mint flakes.
Cauliflower	Choose compact heads. Cut off leaves and break into one inch flowerettes. Soak in salt solution for 1/2 hour (see broccoli). Rinse and drain.	1 lb.	Water Blanch 3 minutes (To preserve white color, add ascorbic acid to water.)	Freezer containers.	3 to 8	Top with buttered, toasted bread or cracker crumbs.
Corn on the cob	Husk, remove silk, wash, trim tops. Sort by size. After blanching, chill twice as long as blanching time to insure that the cob is thoroughly chilled.	-----	Water Blanch Small ears 8 Large ears 11	Package up to 6 ears in freezer wrap or bags.	Thaw at room temperature 2 hours. Cook 3 to 4 minutes. Do not overcook.	Brush melted butter or margarine over cooked ears. Salt and pepper to taste.
Corn Cut, Whole Kernel	Blanch on cob, cool in ice water, drain. Cut corn from cobs at about 3/4 depth of kernels.	6 ears	Water Blanch 4-1/2	Freezer bags or containers.	3 to 5	Sprinkle with shredded cheddar cheese.
Cream Style	Blanch on cob, cool in ice water, drain. Cut corn from cobs at about 1/2 depth of kernels. Scrape cobs with dull size of knife to remove juice and heart of kernels.	6 ears	Water Blanch 4-1/2	Freezer bags or containers.	3 to 5	Sprinkle with chili powder, garlic salt or paprika.
Eggplant	Peel, cut in 1/2" slices or cubes.	1 lb.	Water Blanch 4 Blanch, then dip in 1 teaspoon ascorbic acid to 1 quart water. Chill in cold water; drain.	Separate slices with double thickness of freezer wrap.	Dot with butter. Broil or bake 5-10 minutes.	Sprinkle with grated Parmesan cheese.
Greens Collards Kale Mustard Spinach Swiss Chard Turnips	Freeze only tender, young greens. Cut off stems. Wash thoroughly. Scald in 1/2 pound lots to avoid matting.	1-1-1/2 lbs.	Water Blanch 2 minutes. Steam Blanching (recommended for collards and stem portion of Swiss Chard) 3-4 minutes.	Freezer containers. Leave 1/2 inch head space.	Thaw and steam 5-15 minutes.	Sprinkle with crumbled bacon or serve with vinegar.
Herbs	Wash leaves thoroughly. Drain.	-----	Do Not Blanch.	Small glass jars or bags.	-----	Snip with scissors while frozen.
Kohlrabi	Pick when young and tender. Cut tops and roots off. Peel and leave whole, cut into 1/4" slices or dice into 1/2" cubes.	1-1-1/2 lbs.	Water Blanch Whole—3 minutes Slices or Cubes—1-2 minutes	Freezer bags or containers.	8 to 10	-----
Mushrooms Uncooked	Wash, trim off stem ends. Immerse small, whole mushrooms or sliced mushrooms in solution of 1/2 teaspoon ascorbic acid to 1 quart cold water 2 minutes. Drain, chill. Use within 2 months.	1/2 lb.	Do Not Blanch.	Loose pack or pack in freezer bags or rigid containers.	Sauté 10-12 minutes	Sauté, frozen, in melted butter over high heat until liquid evaporates. Then brown over medium heat; season with salt; lemon juice, nutmeg.
Sautéed	Sauté small, whole mushrooms or sliced mushrooms in butter or margarine for 3 to 4 minutes. Chill.	1 lb.	Do Not Blanch.	Pack in serving size portions.		Heat, frozen, in skillet over moderate heat, stirring often.
Okra	Freeze only young tender pods. Wash thoroughly—remove stem end, being careful not to cut into seed section. Freeze whole or slice after blanching.	1-1/2 lbs.	Water Blanch Whole medium size pod 3-4 minutes Whole large size pod 5 minutes	Pack, alternating top and tip ends in freezer containers or bags.	5 to 8 minutes.	Bake with tomatoes.
Onions	Peel, wash and chop.	1/2 lb.	Do Not Blanch.	Freezer bags.	-----	Use in cooking.
Parsnips	Freeze only tender parsnips free from woodiness. Wash, pare, cut in 1/2" cubes or 3/4" slices.	1-1/4 to 1-1/2 lbs.	Water Blanch Cubes—2 minutes Slices—3 minutes	Freezer bag or container.	5 to 10	Cook with sliced carrots.
Peas Field (Blackeye)	Freeze only tender field peas, discarding any dry ones.	2 to 2-1/2 lbs.	Water Blanch 2 minutes	Freezer bag or container.	40 to 50	Sprinkle with poultry seasoning, onion, salt or garlic powder.
Green	Freeze only tender, not fully matured green peas. If there is difficulty in shelling peas, scald pods in boiling water for 1 minute.	2 to 2-1/2 lbs.	Water Blanch 1-1/2 to 2 minutes	Freeze as loose pack.	3 to 8	Cook with sliced or diced cucumber.



## How to Freeze Vegetables continued

Vegetable	Preparation	Pounds of Vegetable Necessary to Make 1 Pint	Recommended Method of Blanching/ Blanching Time in Minutes	Packaging	Time Necessary to Cook 1 Pint*	Serving Suggestions
Peppers (cont.) Green or Red	Wash, remove stem ends and seeds. Cut in halves or coarsely chop.	2/3 lb. or approximately 3 peppers	Do Not Blanch.	Separate halves with double thickness wrap. Freeze chopped pepper as loose pack.	-----	Stuff while frozen. Bake uncovered, until tender. Chopped—use thawed or frozen.
Hot	Wash, small peppers can be packaged whole or chopped.	-----	Do Not Blanch	Package whole in freezer bags. Chopped should be frozen as loose pack in freezer bags.	-----	Use in chili and taco sauce and Spanish rice.
Potatoes Sweet	Cook until tender. Skin. Slice, cut in halves or mash. To prevent darkening, dip slices and halves in 2 tablespoons lemon juice to 1 cup water; mix 1 tablespoon orange or lemon juice with each pint mashed potatoes.	2/3 lb.	Do Not Blanch	Freezer containers or pack slices or halves in syrup or roll in sugar.	Heat to serving temperature.	Sprinkle lightly with nutmeg or mace or top with toasted, chopped pecans.
French fried	Peel potatoes, cut into small strips. French fry for 5 minutes until tender (most brown). Drain.	-----	Do Not Blanch	Loose pack.	Bake at 450° for 10 to 15 minutes.	Sprinkle with salt, pepper and Parmesan cheese.
Hash-browned	Prepare favorite recipe frying until almost tender (very light brown).	-----	Do Not Blanch	Freezer containers.	Fry until golden brown.	Sprinkle with Parmesan Cheese or bacon bits.
Mashed	Prepare as usual. Beaten egg white may be added to increase fluffiness. Cool.	-----	Do Not Blanch	Pack in freezer containers or freeze individual mounds and package in cartons.	Heat to serving temperature.	Sprinkle with grated cheese.
Whole	Tiny potatoes may be frozen whole.		Water Blanch 4 to 5 minutes	Freezer bags or containers.	7 to 10 minutes	Sprinkle with parsley and paprika.
Pumpkin	Peel, dice and cook until tender, then puree.	1-1/2 lbs.	Do Not Blanch	Freezer container, leave head space.	-----	Thaw; then use for pies or cakes.
Squash Summer	Pick when small (5-7 inches long). Wash, remove stem end. Cut in pieces not more than 1-1/2 inch thick.	1 lb.	Water Blanch 1/4" slices—3 min. 1-1/2" slices—6 min.	Freezer containers.	5 to 8 minutes	Cook yellow squash and green zucchini together.
Winter	Peel, cut in pieces. Cook until tender; mash, or bake.	1-1/2 lbs.	Do Not Blanch	Freezer containers or freeze mashed in foil baking pans.	In pans, bake uncovered at 400°F for 35-45 minutes.	Thaw, place in baking pans. Sprinkle with brown sugar, butter and nutmeg. Brown under broiler.
Tomatoes Juice	Cook tomato pieces until tender. Strain.	-----	Do Not Blanch	Freezer containers. Leave 1 inch head space.	-----	Garnish with celery stick and/or lemon wedge.
Stewed	Wash, remove stems and skins. Simmer 3 to 10 minutes. Cool. If desired, add 1/2 teaspoon salt per pint. Washed tomatoes, whole or in pieces, can be frozen but they collapse when thawed. Thaw 10 to 20 minutes, then peel off skins. Use for cooking only within 2 months; longer freezing times cause loss of flavor and ropiness.	1-1/4 lbs.	Do Not Blanch	Freezer containers, leave 1 inch head space. Pack raw tomatoes in freezer containers or bags.	Heat to serving temperature uncovered.	Add a pinch of basil or thyme while heating. Croutons or grated cheese can be added just before serving.
Turnips	Remove tops, wash, peel and slice or dice in 1/2 inch cubes.	1-1/4–1-1/2 lbs.	Water Blanch 2-1/2 minutes	Freezer container or loose pack in freezer bags.	8 to 12	Top with butter and parsley.
Vegetables Purees	Cook vegetable until tender. Mash or puree in a blender. Use for special diets, cream soups, or sauces.	-----	Do Not Blanch	Pack in serving size portions in freezer containers, leave 1/2" head space.	Heat to serving temperature.	Top with toasted seasoned croutons.

\*Cook in 1/2 cup water which has been lightly salted. Exceptions: Lima beans require 1 cup water. Corn on the cob should be covered with water.

## Blanching Vegetables in the Microwave Oven

Vegetables must be blanched before freezing. The microwave oven can be used to blanch large or small quantities of vegetables and eliminates the need for hot steamy pots of water which must be used when vegetables are blanched conventionally. To blanch vegetables follow these steps:

1. Wash, peel, slice, dice or chop vegetables as you would for conventional blanching as soon as possible after picking and/or purchase.
2. Use the appropriate casserole size and measure the amount of vegetables and water into the utensil as directed by the following chart. (Do not add salt.)—Vegetables should be salted after complete cooking. Salting before cooking causes the surface of the vegetables to darken and dry out. Cover the utensil.

3. Set microwave oven on high power for the minimum blanching time. Stop the oven half-way through the blanching time to stir or rearrange vegetables. Cover the utensil and return it to the microwave oven for the remaining blanching time. Vegetables should have a uniform bright color, if they do not, return covered casserole to the oven for the maximum amount of blanching time. Drain vegetables thoroughly.
4. Plunge all vegetables into ice water to stop further cooking. Spread the vegetables on paper towels to drain and blot away excess moisture with additional paper towels.
5. Package vegetables in a loose or bulk pack. See specific instructions given for packaging in the Vegetable section of this guide.



## How to Blanch Vegetables in the Microwave Oven

Set the microwave oven for the minimum amount of blanching time. At the end of this period, vegetables should be an even bright color yet still firm. If more blanching time is needed, return vegetables to oven and check for doneness every additional 30 seconds.

Vegetables	Special Preparation Techniques	Amount of Veg.	Casserole Size	Amount of Water	Blanching Time on HIGH Power (minutes)
Asparagus	Trim off woody portions—do not use. Cut into 1-1½ inch pieces.	1 pound	2 quarts	1/4 cup	2-1/2-4
Beans (yellow or green)	Remove ends and cut into desired lengths.	1 pound	1-1/2 quarts	1/2 cup	4-6
Broccoli	Soak in solution of 4 teaspoons salt to 1 gallon water for 1/2 hour to remove any insects. Rinse and drain. Remove woody portions. Piece size should be no more than 1" across and 4-5 inches long.	1-1/4 to 1-1/2 pounds (1 bunch)	2 quarts	1/2 cup	4-6
Carrots	Clean and peel carrots. Slice carrots approximately 1/4 inch thick.	1 pound	1-1/2 quarts	1/4 cup	3-1/2-6
Cauliflower	Soak in salt solution (see broccoli), rinse and drain. Break cauliflower head into flowerets.	1 head	2 quarts	1/2 cup (To prevent discoloration add 1/8 teaspoon ascorbic acid to the water.)	4-5-1/2
Corn on the Cob	Cut corn off cob before blanching. Cool blanched corn by setting casserole in ice water, stir corn until cool.	4 ears	1 quart	1/4 cup	3-1/2-4-1/2
Peas	Shell peas.	2 pounds	1 quart	1/4 cup	3-1/2-6
Spinach	Wash spinach leaves to remove sand and soil. Shake, but do not dry.	1 pound	2 quarts	NONE—Water clinging to leaves is sufficient.	2-1/2-3-1/2
Squash Summer Zucchini	Squash may be peeled or unpeeled before blanching. Cut in 1/4 inch slices.	1 pound	1-1/2 quarts	1/4 cup	2-4
Turnips	Peel and cube turnips.	1 pound	1-1/2 quarts	1/4 cup	3-4/1-2

## More Foods to Freeze

1. Brown sugar and confectioners' sugar can be stored in the freezer to prevent the formation of lumps and to retain the moisture content.
2. Candies: Fudge, chocolates (those with hard or nut centers may crack or chip), caramels, after-dinner mints, hard candies and most others keep fresh in your freezer. Pack in freezer containers or freeze wrapped bars and candies in freezer bags. To use, thaw, wrapped at room temperature.
3. Chopped green peppers and chopped onions, packed in plastic bags, are handy to have on hand in your freezer.
4. Coconut, dried fruits, nuts, candied fruits and peels can be frozen in freezer containers.
5. Cranberry sauce, your own or canned, freezes well.
6. Grated or thin strips of orange, lemon, lime peel are handy to have in your freezer for use in baking and beverages.
7. Herbs are nice to have in your freezer. To use, chop or snip with scissors while frozen.
8. Horseradish holds its flavor longer when frozen.
9. Marshmallows may be frozen in their original bag. To use, snip with scissors while frozen.
10. Potato chips, pretzels, crackers, popcorn freeze well. Place unopened bags or boxes in freezer bags. If opened and still crisp turn into freezer containers or coffee cans with reusable plastic lids. Seal, if necessary.
11. Tea or coffee which is left over can be frozen in ice cube trays for use in iced coffee or iced tea.
12. Tomato paste and cocktail sauce for seafood keep well in the freezer.

## Foods Not Recommended for Freezing


No matter how advanced and accomplished your freezing techniques are, there are some foods that just don't freeze well. To avoid wasted time and energy, as well as frustration, do not freeze the following foods.

1. Boiled potatoes frozen by themselves become mushy upon thawing.
2. Salad greens such as lettuce, celery, cabbage, etc. frozen by themselves become limp upon thawing.
3. Large pieces of hard cooked egg white toughen upon freezing—ground egg white freezes well.
4. Meringues toughen upon freezing.
5. Cream custards, fillings and puddings separate upon thawing and have a thin texture.
6. Milk sauces frozen by themselves may curdle.
7. Mayonnaise (not frozen in salads) may separate during the freezing and thawing process.
8. Cooked shellfish, especially shrimp, may toughen during freezing.
9. Broiled or quickly cooked meat and fish. These foods can be easily overcooked upon reheating.
10. Stuffing frozen in cooked or raw poultry is a health hazard.
11. Cured meats such as frankfurters, bologna, luncheon meat do not freeze well. The high proportion of salt used in these meats can cause the meat to become rancid more quickly.
12. Fried foods lose their crispness upon freezing.
13. Gravy, frozen separately, with a high proportion of fat, may separate upon thawing. Use less fat in gravy which you intend to freeze and stir it well during the reheating process.
14. Cake icings made with a high proportion of egg whites weep upon thawing.
15. Cake batters, muffins and quick breads which have been frozen may not rise as high upon baking.
16. Jelly sandwiches may become soggy upon thawing.
17. Gelatin salads which do not contain fruit or vegetable fillings weep upon thawing.
18. Salt loses its flavor upon freezing and tends to increase the rancidity of any frozen food item which contains fat.
19. Bay leaves, cloves, pepper and synthetic vanilla become bitter when used in cooked foods which are frozen. Use real vanilla in those foods which you intend to freeze.
20. Curry seasoning may develop a musty, off-flavor in frozen foods.
21. Celery seasoning, garlic, fresh onion, pepper and sage become stronger flavorings during freezing. Substitute dried minced onion for fresh onion in those foods that will be frozen.




# RETAIL CUTS OF PORK

WHERE THEY COME FROM AND HOW TO COOK THEM




1 Cubed Steak\*




Pork Cubes

— Braise, Cook in Liquid, —  
Broil




2 Blade Steak




2 Smoked Shoulder Roll

Braise, Panfry

Roast (Bake), Cook in Liquid




2 Boneless Blade Boston Roast



2 Blade Boston Roast

Braise, Roast

**BOSTON SHOULDER**



4 Fat Back

Panfry, Cook in Liquid



1 4 Lard

Pastry, Cookies, Quick Breads, Cakes, Frying

1 **CLEAR PLATE**

4 **FAT BACK**



1 Blade Chop



2 Rib Chop



2 Loin Chop



3 Sirloin Chop



Cubed Steak\*



2 3 Butterfly Chop



2 Top Loin Chop



3 Sirloin Cutlet

Braise, Broil, Panbroil, Panfry



1 Country-Style Ribs



1 2 Back Ribs



2 Smoked Loin Chop



1 2 3 Canadian-Style Bacon

Roast (Bake), Braise, Cook in Liquid

Roast (Bake), Broil, Panbroil, Panfry



1 2 3 Boneless Top Loin Roast



1 2 3 Boneless Top Loin Roast (Double)



2 3 Tenderloin

Roast

Roast (Bake), Braise, Panfry



1 Blade Loin




2 Center Loin




3 Sirloin

Roast

**LOIN**




1 2 3 Boneless Leg (Fresh Ham)




1 2 3 Sliced Cooked "Boiled" Ham

Roast

Heat or Serve Cold




1 2 3 Boneless Smoked Ham




1 2 3 Canned Ham

Roast (Bake)




2 Boneless Smoked Ham Slices




2 Center Smoked Ham Slice

Broil, Panbroil, Panfry



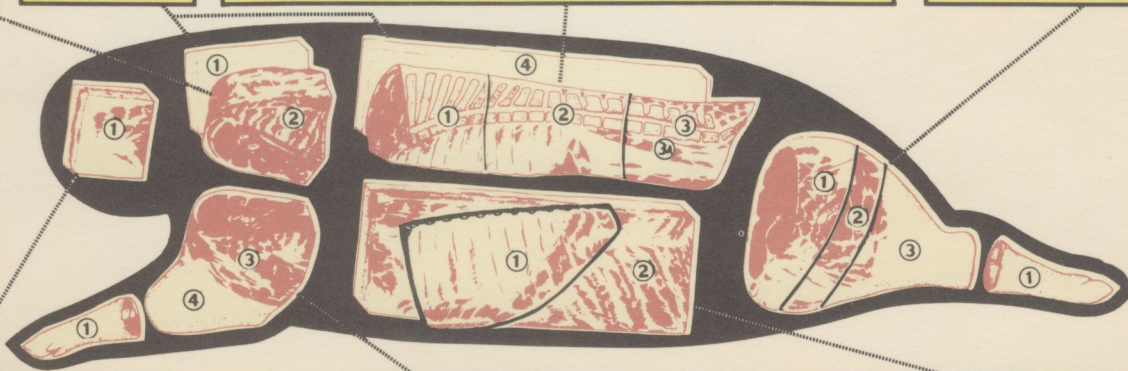
1 2 Smoked Ham, Rump (Butt) Portion




3 Smoked Ham, Shank Portion

Roast (Bake), Cook in Liquid

**LEG (FRESH OR SMOKED HAM)**



**JOWL**



1 Smoked Jowl


Cook in Liquid, Broil, Panbroil, Panfry




1 Pig's Feet

Cook in Liquid, Braise


**PICNIC SHOULDER**




3 4 Fresh Arm Picnic



3 4 Smoked Arm Picnic



3 Arm Roast




Ground Pork\*

Roast


Roast (Bake), Cook in Liquid

Roast


Roast (Bake), Panbroil, Panfry




Fresh Hock




Smoked Hock




2 3 Neck Bones



3 Arm Steak



Link Sausage\*



Roll Sausage\*

Braise, Cook in Liquid

Cook in Liquid

Braise, Panfry

Panfry, Braise, Bake

1 SPARERIBS



1 Spareribs

2 BACON (SIDE PORK)



2 Slab Bacon



1 Salt Pork



2 Sliced Bacon

Bake, Broil, Panbroil, Panfry, Cook in Liquid

Bake, Broil, Panbroil, Panfry

\*May be made from Boston Shoulder, Picnic Shoulder, Loin or Leg.

This chart approved by  
National Live Stock and Meat Board

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