Fresh, perishable foods should be used soon after harvest or purchase. If storage is necessary, maintain the proper temperature and humidity. Use fresh foods as soon as possible, before they undergo a loss of quality. Even under the best storage conditions, freshness and nutritive value can be lost if foods are stored too long.

Under poor storage conditions, foods held too long often spoil. Some kinds of spoilage are harmful to health; others are not. It is not always possible to distinguish between the two kinds.

Indications of spoilage that make food unpalatable but not hazardous to health are the rancid odor and flavor of fats caused by oxidation, slime on the surface of meat, and the fermentation of fruit juices due to yeast growth.

Among the signals that indicate dangerous bacterial spoilage are off-odors in foods and a sour taste in bland foods.

Low temperatures are required in the storage of many perishable foods. Low temperatures retard quality losses and delay spoilage by slowing the action of enzymes naturally present, and by slowing the growth of spoilage organisms that may be present.
STORAGE NEEDS VARY

Foods vary in the degree of temperature and the amount of moisture needed to retain quality in storage.

Although most fresh, perishable foods keep longest and best in the refrigerator, certain varieties of apples and some root vegetables keep well in a cool basement or outdoor cellar or pit. A few fruits and vegetables can be kept successfully at room temperatures.

Green leafy vegetables keep their crispness and nutrients best in cold, moist air. On the other hand, too much moisture in the air around cherries and berries encourages the growth of mold and rot.

Check the storage facilities you have. Do you have a cool, dark place to store root vegetables? If not, purchase only small quantities of these vegetables.

Do you have adequate hydrator space in the refrigerator? If not, have plastic bags on hand to store foods that must be kept moist. Plastic containers with tight fitting lids are also suitable. Any refrigerated food that may lose quality through drying should be kept covered.

Know the refrigerator you use; locate its coldest spots. Does the refrigerator maintain a uniform temperature? Purchase a reliable thermometer to check refrigerator temperature.

SELECTING FOOD

When shopping, select foods wisely; choose those of highest quality. Shop with the intent of using foods immediately rather than storing them for long periods. Buy only those amounts and kinds of foods you can store properly and use during the time of optimum quality.

Buy fresh fruits and vegetables that appear clean, free of defects, bruises, and blemishes. Do not choose overripe produce—make sure fruits are firm with no soft spots or bruises. Buy fruits by size for the purpose intended. Select lettuce or other greens with firm leaves and no signs of wilt or decay.

Handle fruits and vegetables carefully to prevent injury. Check for quality grades; look for this information on the original containers of fresh fruits and on canned or packaged food labels.

Buy meats that are graded and have been inspected by USDA. This assures that the meat came from healthy animals and was processed under sanitary conditions. Also, check the thermometer in the meat case to see that the meats are held at temperatures of 40° F. or below while on display.

Buy only clean eggs with no cracks in the shell.

Buy packages or cans of food that are in good condition. Avoid packages that are damaged or broken, and cans that are dented, rusted, or bulged at the ends.

Many products are now dated to give you an idea as to the length of time they may be sold. Most dairy
products, packaged meats and cheeses, and other packaged foods are dated. If you need help in interpreting the dating code, ask your store manager. Familiarize yourself with date coding and purchase foods accordingly.

**TEMPERATURES IN THE REFRIGERATOR**

The temperature in frostless and self-defrosting refrigerators is fairly uniform throughout the cabinet, including the storage area in the door.

In refrigerators that must be defrosted manually, the coldest area outside the freezing unit is the chill tray located just below it. The area at the bottom of the cabinet is the warmest. The door and hydrator storage areas are usually several degrees higher than the rest of the refrigerator.

When air circulates in the refrigerator, the cooler air moves downward and forces the warmer air near the bottom to rise. This air motion dries out any uncovered or unwrapped food.

In most refrigerators, with the control set for normal operation, the temperature in the general storage area is usually below 40°F. The homemaker can check the temperatures in her refrigerator by placing a thermometer at different locations in the cabinet. If the temperature is above 40°F., regulate the control to maintain temperatures below 40°F.

Frequent opening of the refrigerator door, especially on warm, humid days, or an accumulation of thick frost on the freezing unit, raises the refrigerators temperatures.

The freezing compartments of home refrigerators are not designed to give a temperature of 0°F.—the temperature needed for prolonged storage of frozen foods. Hold frozen foods in these compartments only a few days. In refrigerator-freezers where temperature can be maintained at 0°F. in the freezer cabinet, food may be kept for the same storage periods as in a freezer.

Use the refrigerator properly. Do not overcrowd it—allow space around food containers for air circulation. Defrost when needed.

**STORAGE DIRECTIONS**

To retain high quality and nutritive value of your food supply, stock only the kinds and amounts of food you can store properly. Maintaining the best eating quality of foods was the first consideration in setting the storage times given in this bulletin. Some foods, however, will still be acceptable after longer storage periods if storage temperatures do not exceed those recommended.

**BREADS AND CEREALS**

**Breads**

Store in original wrapper in breadbox or refrigerator. Use within 5 to 7 days. Bread keeps its
freshness longer at room temperature than in the refrigerator. In hot, humid weather, however, bread is better protected against mold in the refrigerator than in the breadbox.

Breads will retain their good quality for 2 to 3 months if frozen in their original wrappers and stored in the home freezer.

Cereals, flours, spices, and sugar

Store at room temperature, away from the heat of a range or a refrigerator unit. Store in tightly closed containers to keep out dust, moisture, and insects.

During summer, buy flours and cereals in small quantities. Inspect often for weevils.

Dry mixes

Cake, pancake, cookie, muffin, and roll mixes may be held at room temperatures, away from the heat of a range or a refrigerator unit.

EGGS

Shell eggs

Store promptly in refrigerator. Eggs retain quality well in the refrigerator; they lose their mild flavor quickly at room temperature.

To insure best quality and flavor, use eggs within a week. If eggs are held too long, the thick white may thin, the yolk membrane may weaken and break when the shell is opened.

If eggs are cracked, use them only in foods that will be thoroughly cooked.

Cover leftover yolks with cold water and store in the refrigerator in a covered container. Extra egg whites should also be refrigerated in a covered container. Use leftover yolks and whites within 2 to 4 days.

Dried egg

Keep in refrigerator. After a package has been opened, store un-
used portion in an airtight container with a tight-fitting lid.

Dried egg will keep its good flavor for about a year if it is stored properly.

**FATS AND OILS**

Most fats and oils need protection from air, heat, and light. Fats and oils in partially filled containers keep longer if they are transferred to smaller containers in which there is little or no air space.

**Butter, fat drippings, and margarine**

Store, tightly wrapped or covered, in the refrigerator. These products are best used within 2 weeks.

Keep only as much butter or margarine in the butter compartment of the refrigerator as needed for immediate use. Don't let butter or margarine stand for long periods at room temperature; exposure to heat and light hastens rancidity.

**Cooking and salad oils**

Keep small quantities at room temperature and use before flavor changes. For long storage, keep oils in the refrigerator. Some of these oils may cloud and solidify in the refrigerator. This is not harmful. If warmed to room temperature, they will become clear and liquid.

**Hydrogenated shortenings and lard**

Most of the firm vegetable shortenings and lard have been stabilized by hydrogenation or antioxidants. These shortenings can be held at room temperature without damage to flavor. Lard that is not stabilized should be refrigerated. Keep these products covered.

**Mayonnaise and other salad dressings**

Keep all homemade salad dressings in the refrigerator. Purchased mayonnaise and other ready-made salad dressings should be refrigerated after jars have been opened.

**FRUITS**

Plan to use fresh fruits promptly while they are sound and flavorful. Because fruits are fragile they need special handling to keep them from being crushed or bruised. The softened tissues of bruised and crushed fruits permit the entrance of spoilage organisms that quickly break down quality.

Sort fruits before storing. Bruised or decayed fruit will contaminate sound, firm fruit.

**Apples**

Store mellow apples uncovered in the refrigerator. Unripe or hard apples are best held at cool room temperature (60° to 70° F.) until ready to eat. Use ripe apples within a month.

**Apricots, nectarines, and peaches**

These fruits may be ripe when purchased. If not, store at room temperature until flesh begins to soften. Then refrigerate and use within 3 to 5 days.

**Avocados, bananas, and pears**

Allow these fruits to ripen at room temperature, then refrigerate. The skin on bananas will darken but the flesh will remain flavorful and firm. Use within 3 to 5 days.

**Berries and cherries**

Store covered in refrigerator to prevent moisture loss. Do not wash
or stem before storing. Use within 2 to 3 days.

Cranberries
Store covered in refrigerator. Use within 1 week.

Grapes
Grapes are ready to use when purchased. Store covered in refrigerator. Use within 3 to 5 days.

Citrus fruits
These fruits are best stored at a cool room temperature (60° to 70° F.). Use within 2 weeks. Citrus fruits may also be stored uncovered in the refrigerator.

Melons
Keep at room temperature until ripe then refrigerate. When storing cut melon, cover and refrigerate.

Pineapples
Pineapples will not ripen further after purchase. There will not be any increase in sugars during storage. Use pineapple as soon as possible, as holding results in deterioration. Once cut, pineapple may be stored in a tightly covered container 2–3 days.

Canned fruits, canned fruit juices
After canned fruits and canned fruit juices have been opened, cover and store them in the refrigerator. They can be safely stored in their original containers; but, for better flavor retention, storage in glass or plastic is recommended.

Plums
Plums are generally ripe when sold. Refrigerate and use within 3 to 5 days.

Dried fruits
Keep in tightly closed containers. May be stored in cool place about 6 months. In warm, humid weather store in refrigerator.

Frozen fruit juices
Cover reconstituted fruit juice concentrates and keep in the refrigerator. For best flavor, keep in glass or plastic containers.

Jellies, jams, and preserves
After these fruit products have been opened, store them, covered, in the refrigerator.

MEAT, POULTRY, FISH
Store meats in the coldest part of the refrigerator.

Cold cuts
Store in the refrigerator. Unopened vacuum-sealed packages
may be kept for 2 weeks. Once opened, wrap well and use within 3 to 5 days.

**Cured and smoked meats**

Store ham, frankfurters, bacon, and smoked sausage in the refrigerator in their original packagings. Use within 1 week for best flavor. Uncooked, cured pork may be stored longer than fresh pork, but the fat will become rancid if held too long.

Store whole ham in original wrapping up to 1 week; half a ham for 5 days. Use ham slices within 3 days. Canned ham, unopened, will retain optimum eating quality in the refrigerator up to 1 year.

**Fresh meat; roasts, steaks, chops, and ground**

Cover roasts, steaks, and chops loosely and store in refrigerator. Use within 3 to 5 days.

Sausage frequently is shipped frozen. Keep frozen and use within 30 days. Once thawed, use within 3 to 4 days.

Ground meats, such as hamburger, are more likely to spoil than roasts, chops or steaks because more of the meat surface has been exposed to contamination from air, from handlers, and from mechanical equipment. Lightly cover these meats, store them in the refrigerator, and use within 1 or 2 days.

**Poultry and fish**

Poultry and fish should be used within 1 or 2 days. The transparent wrap on poultry, as purchased, may be used for storage.

**Variety meats such as liver, kidneys, brains, and poultry giblets**

Store in refrigerator. Use within 1 or 2 days.

Before storing poultry giblets remove them from the separate bag in which they are packed, rewrap, and refrigerate.

**Leftover cooked meats and meat dishes**

Cool quickly (container may be placed in cold water), cover, and refrigerate promptly. Use within 3 to 4 days. Cooked ham should be used within a week.

**Leftover stuffing**

Remove leftover stuffing from chicken or turkey, cool immediately,
and store separately from the rest of the bird. Use within 1 or 2 days.

**Leftover gravy and broth**
These are highly perishable. Cover and store in the refrigerator promptly. Use within 1 or 2 days.

---

**MILK, CREAM, CHEESE**

**Fresh milk and cream**
Store in the refrigerator immediately after purchase. Keep tightly closed so they will not absorb odors or flavors from other foods. Return to refrigerator immediately after each use. For best eating quality, use within 1 week. Some creams may be stored longer if they have been ultra-pasteurized—a new process which lengthens storage life of the product.

**Dry milks**
Keep dry milk—either nonfat or whole—in a tightly closed container.

*Nonfat dry milk* will keep in good condition for several months on the cupboard shelf.

Close the container immediately after using. If dry milk is exposed to air during storage, it may become lumpy and stale.

**Dry whole milk** is marketed only on a small scale, chiefly for infant feeding. Because of its fat content, it does not keep as well as nonfat dry milk; after the container has been opened, dry whole milk should be stored, tightly covered, in the refrigerator.

Refrigerate reconstituted dry milk like fresh fluid milk.

**Evaporated milk and condensed milk**
Store at room temperature until opened, then cover tightly and refrigerate like fresh fluid milk.

**Cheese spreads and cheese foods**
After containers of these foods have been opened, cover and store them in the refrigerator. Use within 1 to 2 weeks.

**Hard cheeses such as Cheddar, Parmesan, and Swiss**
Keep in the refrigerator. Wrap tightly to keep out air. Stored this way, hard cheeses will keep for sev-
eral months. Cut off mold if it develops on the surface of the cheese.

**Soft cheeses such as cottage, cream, and Camembert**

Store tightly covered. Use cottage cheese within 5 to 7 days, others within 2 weeks.

### VEGETABLES

The fresher the vegetable, the better it is when eaten.

With only a few exceptions vegetables keep best in the refrigerator.

The exceptions—potatoes, sweet-potatoes, mature onions, hard-rind squashes, eggplant, and rutabagas—keep well in cool rather than in cold storage.

Sort vegetables before storing them. Use immediately any vegetables that are bruised or soft. Discard any that show evidence of decay.

The vegetable crisper in your refrigerator performs better if it is at least two-thirds full. If crisper is less full than this, vegetables will keep better if they are put in plastic bags before being placed in the crisper. Always store vegetables in plastic bags or plastic containers if they are not stored in the crisper.

**Asparagus**

Do not wash before storing. Store in the refrigerator in crisper, plastic bags, or plastic containers. Use within 2 or 3 days.

**Broccoli and brussels sprouts**

Store in refrigerator in crisper, plastic bags, or plastic containers. Use within 3 to 5 days.

**Cabbage, cauliflower, celery, and snap beans**

Store in the refrigerator in crisper, plastic bags, or plastic containers. Use cabbage within 1 or 2 weeks; use cauliflower, celery, and snap beans within 1 week.

**Carrots, beets, parsnips, radishes, and turnips**

Remove tops. Store in refrigerator in plastic bags or plastic containers. Use within 2 weeks.
Green peas and limas
Leave in pods and store in refrigerator. Use within 3 to 5 days.

Lettuce and other salad greens
Wash. Drain well. Store in crisper in the refrigerator, in plastic bags, or plastic containers to reduce loss of moisture. Use within 1 week.

Onions
Store mature onions at room temperature, or slightly cooler, in loosely woven or open-mesh containers. Stored this way, they keep several months. They sprout and decay at high temperature and in high humidity.
Keep green onions cold and moist in the refrigerator. Store in plastic bags. Use within 3 to 5 days.

Peppers and cucumbers
Wash and dry. Store in crisper or in plastic bags in the refrigerator. Use within 1 week.

Potatoes
Store in a dark, dry place with good ventilation away from any source of heat, with a temperature of about 45° to 50° F. Potatoes stored in this manner will keep for several months. Light causes greening, which lowers eating quality. High temperatures hasten sprouting and shriveling. If stored at room temperature, use within a week.

Rhubarb
This vegetable is often used as a fruit. It is ready to use when purchased. Refrigerate and use within 3 to 5 days.

Spinach, kale, collards, chard, beet, turnip, and mustard greens
Wash thoroughly in cold water. Lift out of the water as grit settles to the bottom of the pan. Drain well. Store in refrigerator in crisper or in plastic bags. Use within 3 to 5 days.

Squash, summer varieties
Store in crisper, plastic bags, or plastic containers and use within 3 to 5 days.

Sweet corn
Store, unh husked and uncovered, in the refrigerator. Use as soon as possible for sweetest flavor.

Sweetpotatoes, hard-rind squashes, eggplant, and rutabagas
Store at cool room temperature (around 60° F.). Temperatures below 50° F. may cause chilling injury. These will keep several months at 60° F., but only about a week at room temperature.

Tomatoes
Store ripe tomatoes uncovered in the refrigerator. Can be stored in refrigerator up to a week depending on ripeness when stored. Keep unripe tomatoes at room temperature away from direct sunlight until they ripen.

MISCELLANEOUS FOODS
Honey and sirups
Store at room temperature until opened. After their containers are opened, sirups are better protected from mold in the refrigerator. Refrigeration hastens crystal formation in honey. If crystals form,
dissolve them by placing container of honey or sirup in hot water.

**Nuts**

Store in airtight containers in the refrigerator or freezer. Because of their high fat content, nuts require refrigeration to delay development of rancidity.

In general, unshelled nuts may be stored at room temperature about 6 months. Shelled nuts, in moisture-vapor-proof wrapping, can be refrigerated up to 6 months.

Unroasted nuts keep better than roasted ones.

**Peanut butter**

After a jar of peanut butter has been opened it should be kept in the refrigerator. Remove it from the refrigerator a short time before using to allow it to soften.

Additional information on storing and preserving foods is available from Office of Communication, U.S. Department of Agriculture, Washington, D.C. 20250. Include Zip code with your address.

- Keeping Food Safe To Eat. G–162.

**Prepared by**

Consumer and Food Economics Institute

Hyattsville, Maryland

Washington, D.C.

Revised July 1973

Slightly revised April 1976

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington, D.C. 20402