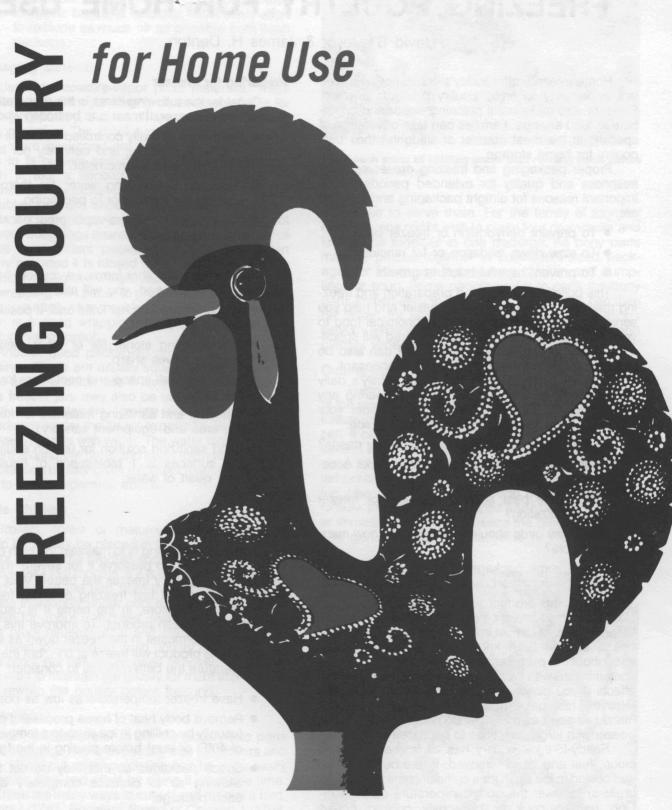
FREEZING



TEXAS AGRICULTURAL EXTENSION SERVICE THE TEXAS A&M UNIVERSITY SYSTEM Daniel C. Pfannstiel, Director, College Station, Texas

# FREEZING POULTRY FOR HOME USE

David B. Mellor & James H. Denton

Home freezers offer today's consumer an excellent opportunity to enjoy poultry products anytime. Freezers also make meal planning easier and contribute to food savings. Families can take advantage of specials at the meat counter or slaughter their own poultry for home storage.

Proper packaging and freezing preserves meat freshness and quality for extended periods. Three important reasons for airtight packaging and freezing are:

- To prevent dehydration or freezer burn.
- To slow down oxidation or fat rancidity.
- To prevent harmful bacteria growth.

This bulletin shows sound preparation and freezing methods, to make your work easier and help you serve high quality, good tasting, economical food to your family and guests. Materials covered will specifically apply to chicken and turkey, but can also be used for duck, guinea, hen, quail and pheasant.

It is advisable to think about your family's daily needs and special occasions before preparing any product for the freezer. To help you consider your needs, use the following questions as a guide.

What is the best package size for family needs? What is the best package size for special occasions?

What is the best shaped package for freezer space utilization?

How many birds should be cut up and how many left whole?

Should some packages contain pieces of only one type such as breast, thighs or drumsticks?

Having the product ready-to-cook helps insure cleanliness and makes freezing preparation easier. Cleanliness is of utmost importance. Keep the cutting board, table or bar, knives and all utensils clean throughout the preparation. Assume that all foods are contaminated with bacteria, but that there will be no ill effects if you observe sanitary practices. Work at a relatively fast pace and place the product in the freezer as soon as possible. Do not overload a home freezer with large quantities to be frozen at one time.

Ready-to-cook poultry has all feathers, viscera, blood, feet and head removed. It has been washed and cooled in ice slush for a sufficient time (2-4 hrs. for broilers) to lower the body temperature below 40°F. Only ready-to-cook or previously cooked poultry should be frozen. Never freeze an uncooked or roasted stuffed turkey.

#### **Preparing for Freezer**

Consider the following items in the preparation of poultry for the freezer. If meat is to be frozen whole —

- The thermostatically controlled freezer is set at -20°F., if possible, and definitely not higher than 0°F. Use a thermometer.
- Plenty of free flowing water for thoroughly washing the birds prior to packaging.
- Some type of moisture-vapor proof packaging materials or containers.
- A cutting board.

If to be frozen in other forms, i.e., cut up, halved, quartered or precooked, you will also need —

- A good sharp butcher knife and, if possible, a boning knife.
- A sharpening stone, file or other means of keeping knives sharp.
- Sufficient work space and containers for holding parts.
- Cleaning and sanitizing materials for keeping the area and equipment sanitary.

A good sanitizing solution for use on equipment and work surfaces is 1 tablespoon of household bleach per quart of water.

#### Freezing the Poultry

The goal in freezing is to maintain the high quality of the poultry, and to preserve it for several months. The faster the poultry freezes the better. Most home units do not have a fast freezing or sharp freezing compartment, therefore, in the home it is usually a relatively slow frozen product. To improve this situation turn the thermostat in the freezer down as low as possible. The product will freeze at 0°F., but the lower the temperature the better. Points to consider:

- Have freezer temperature as low as possible.
- Remove body heat of home processed poultry (usually by chilling in ice slush to a temperature of 40°F. or less) before placing in the freezer.
- Space packages so that they do not touch, allowing air to circulate completely around each package.
- Avoid overloading the freezer! especially with a large quantity to be frozen.
- Be sure all packages are sealed. Use a recommended freezer tape on all packages. Check all container lids.

<sup>\*</sup>Extension poultry marketing specialists, The Texas A&M University System.

 Remember that air in the package contributes to freezer burn and rancidity. Make every effort to exclude as much air as possible from each package.

### **Packaging Materials**

Use only moisture-vapor proof materials. There are many excellent packaging materials available for packaging poultry, but not all are readily available to the homemaker. The shrink-type bags in which frozen turkeys are packaged are occasionally available in sizes to fit broilers and chicken hens. These bags, which fit like a second skin, can sometimes be obtained from a locker plant or local meat packer. If available, they are excellent for packaging poultry. Plastic bags found on fruits or vegetables should not be used. Such bags are not vapor proof. Aluminum foil makes an excellent packaging material for frozen poultry provided it is closed tightly and formed to the product. The lighter weight aluminum foil may need overwrapping with paper to protect it from rips or tears that occur easily after meat is frozen. Ordinary butcher paper is a good wrapping material as long as it is moisture-vapor proof.

Another good packaging product is the plastic container. These are usually square or rectangular in shape allowing better use of available freezer space. Glass freezer jars may also be used. Pack the parts directly into containers, leaving about ¾ inch space immediately under the lid for expansion. Some prefer to cover the parts with water. The water forces out the air from around the parts and seals them as it freezes. This practice usually gives excellent results. Again, be sure to leave expansion space.

#### Whole Chicken

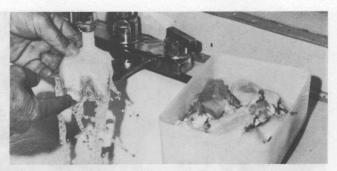
Broilers, fryers or mature hens purchased in plastic bags may be placed in the freezer if the bags are not ripped. The product should be held no longer than 6 weeks to 2 months. If it is to be held for a longer period, remove the bird from the bag and wash the carcass thoroughly under cool running water. Allow it to drain for about 5 minutes, then wrap in moisture-vapor proof material, seal and place in the freezer. Bags used for wrapping fresh poultry are usually not vapor proof, nor has the air been removed. Therefore, if you want to maintain the quality for more than a short time, rewrap the poultry before freezing.

#### Disjointing

Many people prefer to cut the poultry into parts before freezing. This is especially true for broilers and fryers. Home cut up or disjointing can be done easily and saves time and effort by doing it all at one time.

There are many ways to cut-up and disjoint a bird. Leaflets L-1797, Boneless Breast of Chicken, L-1798, Chicken Cut-up: Family Style, L-1799, Chicken Cut-up: Commercial Style, illustrate three methods.

Before wrapping the disjointed parts, thoroughly wash each piece under cool running water. This is the most opportune time to separate the parts as you



Wash each piece of chicken under cool running water before packing for freezing.

would like to serve them. For the family of four, for example, one might wish to place four drumsticks and four thighs together in one package. All bony parts may be placed together in convenient-sized packages for future use in preparing chicken and dumplings or soup. Some people prefer to cook the bony parts immediately to make stock. This stock can then be frozen for later use. Remember to keep things sanitary while working. Keep all working surfaces and utensils wiped clean of blood and water.

### **Cutting Up the Turkey**

Fresh turkey, slaughtered at home or purchased at the store, may be cut into parts for freezing. Frozen turkey may also be thawed, cut into parts and refrozen, if carefully done. It is best to use large unbasted turkeys because the larger the turkey, the greater the yield. When working with a frozen turkey do not let the temperature of the meat rise above 35°F. during thawing. Use sanitary equipment and materials and work rapidly, placing the rewrapped parts back in the freezer immediately. Do not refreeze the giblets and neck. The general recommendation is not to refreeze a

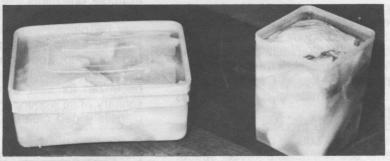


Two chickens have been cut into parts for packaging and freezing. At this point, it is possible to separate the parts into three types. The pan contains the bonier parts which some prefer to utilize in chicken and dumplings or soups. On the left are parts that are all light meat and pieces of all dark meat are on the right.

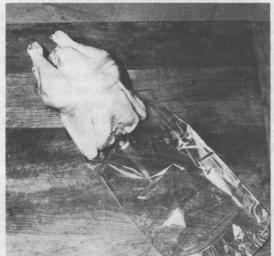


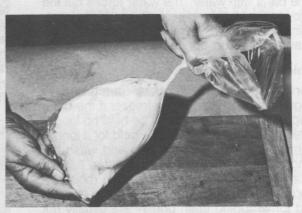
Some materials and equipment that may be used in preparing poultry for freezing are rigid plastic containers, moisture — vapor proof bags, freezer tape, heavy-duty aluminum foil, sharp knife and stone and containers for holding parts.

Here are plastic containers filled with chicken parts. Note water level in container on right. It has been filled to about ¾ inch from the top to allow for expansion during freezing. Container on left has had water added and the lid has been sealed with freezer tape.



Start bird into moisture-vapor proof bag as shown. Moistening the skin will help. The bag may be stretched considerably if necessary.







After bird is in the bag, exhaust as much air as possible by pressing toward the open end with both hands. When all air is out, twist the bag as shown and close with freezer tape or metal closures.

Bird is completely sealed, dated and ready for the freezer. To shrink the plastic, dip the packaged bird into water heated to 200°F for 2 seconds. Remove from hot water and the bag will shrink to glove tightness. This is possible only with thicker high quality bags.



Chicken placed on sheet of aluminum foil in proper position for the drugstore wrap.



Draw paper together so that edges are equal. Fold edges together in 1-inch folds until tight over the breast of the bird.

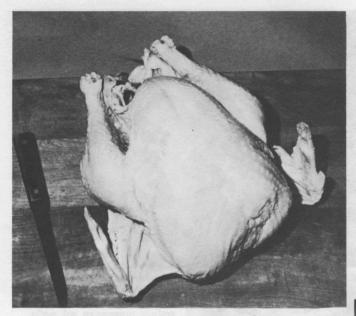




Crimp and fold ends, then mold the aluminum wrap to the body of the bird forcing out all the air possible. Now fold ends upward and press down tightly.

Complete sealing job by sticking two rows of freezer tape over folds and flaps. Package is now ready for freezing. Provide air space between packages in freezer to promote faster freezing.

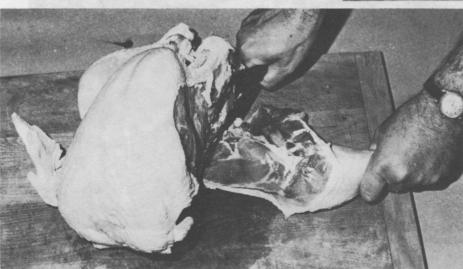




Freshly processed turkey on cutting board ready to be cut into parts with sharp knife for serving as many as four good meals.

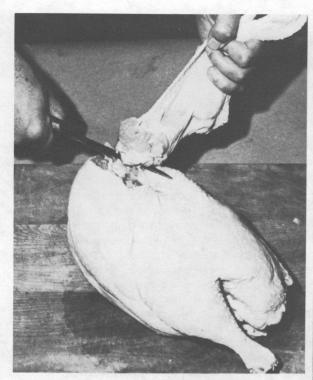
Grasp drumstick firmly at the hock joint. Pulling the leg outward from the body, cut through the exposed skin, leaving as much skin as possible on the breast.

Cut the skin down to the thigh joint and dislocate leg from hip by pressing down onto the cutting board. Cut through thigh joint and connective tissue separating leg from rest of bird.



## TURKEY CUT UP



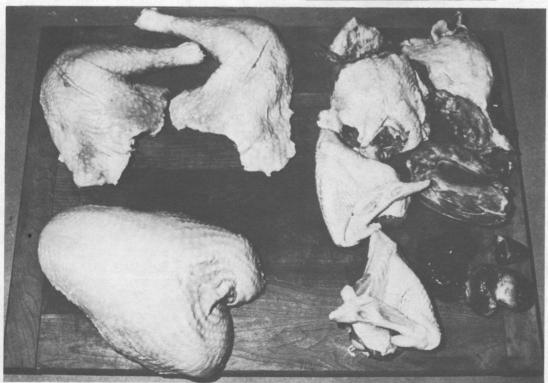


Turn bird on side, hold wing firmly and pull upwards. Stretch to full extent. Cut into wing joint leaving as much meat as possible with the breast. Cut through joint and connective tissue, completely separating wing.



Set front end of breast down on board. Hold turkey firmly and cut straight through rib cage to front of breast. Cut through connective tissue separating breast into one portion. This cut is made on both sides at the same time. The ribs are joined by a small amount of white connective tissue that may be seen from inside the body cavity.

Firmly hold back parts flat on board and make cut as shown directly behind ribs. Turn piece and made same cut on other side. The back may then be broken easily into two parts.



Wings, back parts, neck and giblets on right may be used in a casserole, as turkey and dumplings or in the preparation of stew or soup. Each full leg (drumstick and thigh) when roasted with dressing will make a full main course for a family of four. The breast when roasted makes a wonderful special dinner for up to eight people.

thawed product, but if the need arises and the above precautions are followed, turkey meat can be successfully refrozen. Refreezing may also be used in the salvage of poultry meat following a freezer malfunction or other unexpected thawing, provided that the meat has not been held above 35°F for more than a few hours. Generally poultry meats react better under such circumstances than most other frozen foods and can be refrozen with almost no loss in quality.

### **Whole Turkey**

When whole frozen turkeys are purchased, they may be placed directly in a freezer with no further preparation. As stated earlier, some families cannot utilize a whole turkey at one time and may find it better to purchase halves or quarters. In the event these are not available, one can usually get a butcher to cut the turkey carcass into halves and then into quarters. After cutting, the bird must be rewrapped for proper storage in a home-freezer unit. Wrapping materials should be of high quality and moisture-vapor proof.

### **Holding Frozen Poultry**

When properly packaged, poultry meat may be held in a freezer with a maintained temperature of 0 to  $-20^{\circ}$  F. for 6 to 12 months with little quality loss. Date each package and maintain an inventory for maximum satisfaction in utilization.

### **Thawing Frozen Poultry**

Thawing time depends on the size of package or bird and the thawing method used. The most recommended thawing method is to place the package on a plate or pan in the refrigerator. Time required will vary from 1 to 3 days. The package may also be placed in a pan of cold water, or when properly sealed, may be placed under the cold water tap. Thawing on the kitchen counter is usually not a recommended practice because the outer surface may become too warm before the interior meat thaws. At times the thaw can be started in water or on the counter before storing in the refrigerator — if carefully monitored. A heavy grocery bag may also be used to help lower surface temperature when thawing at room temperature.

In any event, check the package often to determine progress. Leave the product in the package in which it was frozen during the thawing period. Rules to remember: The larger the package the more time needed for thawing. The faster the thaw the more drip loss encountered. Cook poultry as soon as possible after thawing.

### **Timetable for Methods of Thawing Turkeys**

| Pounds | Refrigerator (days) | Cool Water (hours) | RoomTemperature (hours) |
|--------|---------------------|--------------------|-------------------------|
| 4-6    | 1-11/2              | 3-4                | 6-8                     |
| 8-12   | 11/2-2              | 4-6                | 8-12                    |
| 12-16  | 2-21/2              | 6-7                | 12-14                   |
| 16-20  | 21/2-3              | 7-8                | 14-16                   |
| 20-24  | 3-31/2              | 8-10               | 16-18                   |

#### **Precooked Meals**

Poultry meats and the home freezer can combine to greatly assist the homemaker in advance meal planning. Many family or guest meals can be prepared ahead of time and placed in the freezer for future use. Almost any poultry meat dish may be prepared as long as it is cooked thoroughly and is frozen properly. However, never freeze a stuffed turkey or chicken before it has been cooked.

Cool food dishes immediately after cooking. Because cooling stops the cooking process, it helps preserve the natural flavor, color and texture. To cool, set uncovered pan of food in iced or very cold water. Change the water to keep it cold. The pan may also be put directly on ice. If you place a very hot dish directly in the refrigerator it may warm up other foods in the refrigerator, thus contributing to bacterial growth and spoilage.

Foods that are to be baked after freezing can be frozen conveniently in oven-proof containers. The food may also be frozen in the casserole in which it is to be baked and then removed for freezer storage. Line the casserole before freezing with heavy aluminum foil, and remove the food after freezing and store in the aluminum wrap. Remove the foil and replace food in casserole when ready for reheating or cooking.

Keep the product and all surfaces clean. Be particularly careful with cooked poultry and meats. Bacteria, which cause spoilage, are spread by handling. Mixtures containing sauces and gravies are especially suited for bacteria growth.

Remember, bacteria are not killed by freezing. Their growth, however, is stopped by freezing. They are killed by heat. Most bacteria are killed at temperatures above 160°F. Most of the bacteria found in foods grow best between 60 and 115°F. It is important, therefore, to keep food cold (below 40°F.) or hot (above 140°F.). Do not allow food to remain between the danger temperature 60-115°F. any longer than absolutely necessary. When reheating food it is wise to thoroughly reheat above 160°F.

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